ECONOMIC AND POLITICAL WEEKLY

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MARXISM AND POST-COLONIAL WORLD: FOOTNOTES TO A LONG MARCH

FERTILISER POLICY: A PRACTICAL APPROACH

AN AGENDA FOR GENDER POLITICS

GREENHOUSE GASES: COSTLY BARGAIN FOR DEVELOPING COUNTRIES

RUSSO-SINO-INDIAN STRATEGIC TRIANGLE: SIGNALS MISSED IN INDIA

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- STUDENT LOANS TO FINANCE HIGHER EDUCATION
- LOUIS DUMONT, 1911-98

FIFTY YEARS AGO

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Marx and the Millennium

Through an investigation of the fate of Marx's doctrine, two interrelated sets of questions may be examined. The first relates to the problem of the specificity of the postcolonial world and the problems of simply 'applying' theory born in the west to conditions so very different. The second set has to do with the ways in which Marxism's canonisation itself led to the destruction of the emancipatory potential – both in its theory and in the organisational forms mediating its practice. 33

Putting a Price on Fertilisers

The Hanumantha Rao Committee's recommendations on pricing of fertilisers were rejected by the industry on the ground that a uniform pricing policy could not be applied to an industry so heterogeneous. Taking into consideration some of the arguments of the industry it is possible to work out a modified formula following the long-range marginal costing principle. 57

Pages from the Past

"It is impudence to believe that our venture will close the gap between administrative knowledge and public ignorance or apathy. But our main attitude will be governed by our faith in the function of knowledge in the resolution of crisis and by our conviction that common men and women in India are more than a bundle of reflexes like Pavlov's dogs." 8

From the very first issue *The Economic Weekly* became a duality. Comments often cheeky on economic and political developments filled the first half and the second half was taken over by the academic crowd. This unusual coexistence of the mundane with the highly abstract created the ambiance of an unstable equilibrium which threatened to break down any moment. It did not, and half a century has elapsed. 10

Who's to Revive Urdu?

What is the point of constantly stressing that the Urdu-speaking community and the Muslim community are virtually one and the same? The defence of the rights of Muslims and the promotion of Urdu are not the concern of Muslims alone. 44

Gender Politics

To set a new agenda for gender politics, there is need to engage with social forces of caste and patriarchy in a much more explicit manner. 24

Uneven Gains

The Kyoto protocol will allow international trade in permits for emission of greenhouse gases. Will this really act as an incentive, or will it only benefit developed countries? 17

Flashpoints

Caste clashes in Tamil Nadu have acquired simultaneously communal overtones indicating the emergence of a new configuration of politics

Citizens and Government

Given the non-transparency of governmental agencies, the judiciary remains the only recourse to citizens to compel these agencies to function responsibly. A study of environmental litigation in Calcutta. 49

Unrealistic Scheme

The concept of student loans for higher education is based on unrealistic assumptions, especially that strong links exist between education and employment in the labour markets in the developing countries. 19

Louis Dumont

His work on India will stand as a monument against the bogey of Orientalism created and published by scholars who are unable to resist the temptations of popular acclaim. 14

More Than a Foray

It is logical in the context of stated American policy to read the recent air-strikes against Iraq as an elem[illegible] of a broader strategy, rather th[illegible] s a punitive foray.

LETTERS TO EDITOR

50th Anniversary of The *EW* and *EPW*

ON the 50th Anniversary of the first issue of *The Economic Weekly (EW)* it is once again fitting to honour Sachin Chaudhuri, the founder and first editor of that journal, which later became the *Economic and Political Weekly (EPW)*. Sachin was one of the great men of the generation that founded an independent India, and the institutions that contributed to its continued democratic and intellectually open character. As an individual he embodied the wide range of Bengali interests and intellectual achievement. One of his successors, of an equally wide range of intellectual interests, is Amartya Sen, the Nobel Prize winner of this year. It is a fitting, even if an unplanned coincidence, that the award of that prize to Amartya Sen should be in the same year as the 50th anniversary of the first issue of that unique journal.

An excellent short history and appreciation of Sachin Chaudhuri's founding of the journal and its history is presented by Terence Byres in a section of a recent book. (Terence J Byres, 'The Creation of 'The Tribe of Pundits Called Economists': Institutions, Institution Builders and Economic Debate'. The section on Sachin Chaudhuri is on pp 66-73 of this Chapter 2 of the book, *The Indian Economy: Major Debates since Independence*, (ed) Terence J Byres, Delhi, Oxford University Press, 1998.) Byres gives in this names of some of the leading Indian economists, who both encouraged Sachin to found the journal and contributed thereafter to it. There have been many more Indian and foreign economists, visiting or working in India, who contributed to the magazine, first attracted by Sachin Chaudhuri's vision and broad range of interest, and then by Krishna Raj. But the magazine is more than an academic economic journal. It has always presented major contributions by non-economists, including political scientists, anthropologists, sociologists and historians, and has devoted special issues to such matters as the role of women in India.

Another major characteristic of the magazine has been its interest in matters of policy and its efforts to influence actions of policy-makers and the thinking of the intelligent and interested layman. While it is editorially left-wing it has always presented interpretations and policy-suggestions from other points of view. Bhabatosh Datta, writing in 1967 on Sachin Chaudhuri's editorship, points out that the magazine combines "the virtues of topical journalism on the lines of *The Economist* and those of a high grade research journal. It was a still greater achievement to marry this all together in harmoney..." (quoted in Byres, p 69). I agree with him and the comparison, and also with Daniel Thorner, who wrote of the journal as "of world rank" and unique (ibid, p 67). It is indispensable for scholars on India throughout the world.

The *EPW* retains this quality and indispensability under the editorship of Krishna Raj May it continue to do so for the next 50 years to complete its century.

GEORGE ROSEN

Chennai

West Bengal Economy

I READ the special issue of *EPW* on the West Bengal Economy (November 21-28) with great interest. I have the following comments to offer on the issues covered in various papers presented in the issue:

(1) The process of de-industrialisation in West Bengal after independence is sought to be explained partly by factors such as the policy of freight equalisation for coal and steel which led to an erosion of location-based cost advantages enjoyed by units in West Bengal. But explanations given for lack of new investments in West Bengal in upcoming areas of industry are inadequate.

(2) The role of non-institutional credit in the transformation of the agriculture sector in West Bengal is notable. Rather than viewing non-institutional credit as a medium to be replaced by institutional credit it would be a more positive approach if this medium of credit supply to medium and small farmers is nurtured and promoted. One factor that should be noted in this connection is that loans taken by small farmers are generally small in size and the interest burden on them on this account constitutes only a small component of their total costs of operations due to the low capital intensity of their operations. Therefore high interest rates paid by small farmers are not too much of a burden on them as is supposed to be.

(3) The credit-deposit ratio of banks in various states in India is found to be lower in semi-urban areas as compared to rural and urban areas. This is an unhealthy trend because it is in the semi-urban areas that the maximum potential of rapid economic growth exists in India. But public policies discourage flow of credit to semi-urban areas in our country.

P V RAJEEV

New Delhi

Holy Busybodies

WITH friends like the Swadeshi Jagran Manch and the Hindu Jagran Manch, BJP leaders may well conclude ruefully, they need no enemies. For all the Vajpayee government's congenital problems stemming from its fragile Lok Sabha majority and its disparate, indeed chaotic, composition, its severest headaches in economic policy-making have been caused by the activities of the votaries of 'swadeshi' within its own extended family, as was forcefully driven home in the course of its frantic scramble to introduce the bills on patents and the insurance regulatory authority in the final phases of parliament's winter session last month. Around the same time more or less, the Hindu Jagran Manch by its doings in the desperately poor, predominantly tribal Dangs district of Gujarat was making sure that the start of the new year would be nothing if not explosive for prime minister Vajpayee and his BJP colleagues in the government. The situation is not altogether unique, of course. It is not uncommon for political parties with heavy ideological baggage to find themselves, on assuming governmental responsibility, quickly tested and found wanting by ideologically pristine conscience-keepers. A parallel, though not an exact one of course, is the aggressive censoring which Left governments in this or that state have had to put up with in the past at the hands of their ultra-radical cohorts.

By the distressingly awesome scale of communal mayhem this country has got used to, last month's events in Ahwa and elsewhere in the Dangs district must appear mercifully minor. There has been no loss of life, physical injuries have been few and, reflecting the economic condition of the area and the people, destruction of property has been limited. The communal clashes around Suratkal near Mangalore in Karnataka about the same time involving, more typically, Hindus and Muslims have taken a far heavier toll in all these respects. The Vishwa Hindu Parishad and other Hindu organisations as well as some BJP leaders, including the Gujarat chief minister, have alleged that the disturbances in the Dangs district have been 'blown out of proportion'. If this has happened, the Hindu outfits have only themselves to blame. It is they who have been shouting from the roof-tops about the international conspiracy, involving the CIA itself for good measure, which they read into the activities of Christian missionaries in the Dangs and some other tribal areas and the conversions which by most counts do not run to more than some thousands.

It is not, however, the scale of the disturbances which is most material from the standpoint of the state and central governments' functioning. The governments have the unequivocal responsibility to maintain law and order. They also have a duty to ensure that individuals and groups are not deprived of their constitutional right to freedom of faith and worship. In the present instance, in large part no doubt because the situation in the Dangs has become the focus of so much attention, the central government has acted with a measure of alacrity which is not always in evidence in similar circumstances: the prime minister and the home minister have been categorical in their condemnation of the violence directed at the missionaries, the home ministry dispatched a team of officials led by one of its special secretaries to the affected areas and the prime minister himself is to pay a visit to these areas. The Gujarat government, after a brief initial show of petulance, has fallen in step; it has submitted a report on the Dangs situation as demanded by the state governor, the concerned district officials have been transferred and details of the action taken to maintain law and order in terms of arrests made, etc, have been made public.

While it is imperative that the pressure of public opinion on the governments in Delhi and Gandhinagar be sustained, there is the other side of the matter – that situations such as that in the Dangs are also a reflection of social realities which while they are affected to a lesser or greater degree by the political attitudes of the governments of the day have far deeper roots. Controversy surrounding the work of missionaries in different parts of the country is by no means something new. To recall a telling example, in the Dahanu area of Maharashtra some years back it was the Left parties which had had occasion to look askance at their activities and some very similar-sounding formulations about conspiracies hatched in the west were then aired. In the case of the recent Gujarat events newspapers have reported the views of two prominent Gandhian workers of the area who evidently intend to submit a memorandum to the central government stating that the situation in the Dangs was a "reaction to conversions". The suggestion has been made in Gujarat and Maharashtra – where too an ominous 'reconversion rally' was organised the other day in a tribal part of Nashik district by an outfit calling itself Vishal Hindu Sammelan – that legislation should be enacted to regulate conversion as has been done in some other states such as Madhya Pradesh. Whether this will assist the administration in its paramount task of maintaining law and order and contribute to safeguarding the citizens' right to religious freedom from being encroached upon by 'forced conversion' and 'forced reconversion' alike deserves consideration.

SCIENCE CONGRESS

Unscientific Approach

THE recently concluded 86th session of the Indian Science Congress appears to have etched more firmly the lines of division between the pursuit of science and its ethical dimensions. More is the pity. For the current dilemma among scientists is by and large how to integrate ethical norms and considerations with their worldview of scientific endeavour as an inherently progressive one even if it appears, in the interim, harmful.

That the Science Congress chose to focus on biotechnology and bioscience is not surprising. After the green revolution years, bioscience, as applied to agriculture, is once again in focus. All over the world biosciences have come out of stagnation and of playing second fiddle to the physical sciences, essentially because of the new technologies in the field which have opened up new frontiers of knowledge growth and of commercial gain. In the US and in many countries of Europe much for the funding for research in health and agriculture is being sunk into biotechnology. Apart from the $3 billion human genome project - aimed at sequencing the 3 billion base pairs of nucleotides which make up the human genome - other massive projects are underway. One such is reportedly the researching of the genome of a small plant similar to the mustard which is looked upon as the future model for genetic engineering. In UK the department of trade and industry has launched in 1994 a programme under which private businesses have been granted 7.5 million pounds for research in biotechnology. And contrary to public impressions, the biggest funders in biotechnology are government agencies and not the corporations that will eventually stand to gain.

It is in keeping with these trends that the central government is projecting bioscience, and biotechnology especially, as the new thrust area. As the prime minister pointed out while inaugurating the Science Congress, India needed to concentrate on two knowledge-based sciences – information technology and bioscience and biotechnology - and both areas, according to him, afforded multimillion dollar opportunities even as they benefit the people. With the minister for human resource development, Murali Manohar Joshi, announcing a new scheme that would fund on a priority basis research projects identified in 21 thrust areas most of which are in the field of biosciences, it was not extravagant of the secretary to the department of biotechnology to seek Rs 15,000 crore for a 10-year plan of development in the area. The post-green revolution era had to merge with the 'gene revolution' in the coming century, with agricultural universities developing expertise in molecular biology and acting as nodes for co-ordinating other research groups. With this focus, the Congress featured luminaries such as James Watson, the discoverer of the DNA, among others.

Biotechnology has prompted wide-ranging public debate all over the scientific world on crucial ethical and ideological and philosophical issues. As a result, governments and scientific associations have had to take time to examine issues that have conventionally been 'outside' science and evolve guidelines that have undergone several revisions and reviews. These debates have been a prominent feature of the growth of this area of science, as perhaps has not happened in any other area in modern times. It is therefore curious and rather unnerving that there was hardly any serious focus on these issues at the Science Congress. Eminent speakers detailed the successes: Indian Council of Agriculture Research's pest shield for cotton farmers, the International Centre for Genetic Engineering and Biotechnology's breakthrough in identifying and introducing into rice and tobacco plants two key genes which help them to withstand stress, of brinjals and tobacco which could be bred to resist pests, of decaffeinated coffee that retains the 'south Indian' flavour, and so on. Others spoke of the need for accepting that in the era of 'megascience', reasonable IPR regimes are necessary. Many were the pleas for future areas of development: for using embryo transfer technology in cattle to improve productivity and improve cattle quality in terms of both meat and milk to be comparable to 'world standards' and to project the scope of growth in pharmaceuticals using recombinant technologies to produce third generation designer drugs. But Indian scientists working in this area appear to be undisturbed by the issues that have for many scientists posed irreconcilable ethical dilemmas and driven them out of biotechnology.

Not only was there no space for such discussions, but in fact 'green lobbies' advocating cautionary approaches towards biotechnology or opposing it appear to have been singled out as obstacles in the path of the glorious progress of modern science. One would suppose that the Indian Science Congress took shape historically not only to provide a platform for announcing scientific results but as a forum for wide-ranging discussions across disciplines. This would presumably mean that issues that concern scientists and have a bearing on their work should find space in the agenda of the Congress. The 86th Congress, by failing to grapple with the issue and in fact dismissing ethical, environmental and human concerns has failed in its objectives. An opportunity for opening up an informed public debate has been lost. This can only give rise to extreme reactions to developments, instead of promoting reasoned debate. The Congress has also failed to stand by young scientists who, having to perhaps face the dilemma of balancing the excitement of working in a leading edge of the science enterprise with the ethical issues related to the products of such research, are being forced to choose one or the other and whichever way they go it is a loss to scientific growth and development.

MAHARASHTRA

Omissions of Commission

WHILE the Justice J D Gundewar Commission has, as expected, severely indicted the sub-inspector of the state reserve police force, Manohar Kadam, for the wanton firing which resulted in death of 11 dalits at Ramabai Ambedkar Nagar in Mumbai on July 11, 1997, the findings of another commission headed by Justice S S Dani to investigate the death of 114 Gowari tribals in Nagpur on November 23, 1994, leave many questions unanswered. The Dani Commission has not only exonerated the then chief minister Sharad Pawar and his three cabinet colleagues from responsibility for the incident but has found the police lathicharge that day to have been "fully justified as well as adequate" for taking control of a potentially nasty law and order situation. The question then is were the tribals who had assembled in large numbers outside the vidhan sabha that day and had been waiting for over five hours to place their 10-year old grievances before a government representative themselves responsible for the tragedy? By labelling the incident as 'unfortunate' and refraining from identifying the agency or the people responsible for the tragedy, the Dani Commission has failed to discharge its responsibility making a cruel mockery of justice.

The Dani Commission's logic in absolving the government authorities and the police does not stand up to scrutiny. It argues that since the Gowaris were killed as a result of the stampede and not in the lathicharge, the police cannot be blamed for the happening. It completely overlooks the sequence of events which led to the stampede. The facts, as have been well documented, are that the stampede began in fact when the police started to wield their batons after removing the barricades. The gathering had begun, quite expectedly after waiting for long hours, to surge towards the barricades in the hope of meeting a government official who they thought was in an approaching car with the official red-light. In the circumstances, to suggest that the police action was justified and in fact helped to prevent a 'catastrophe' is, to say the least, absurd. By de-contextualising the Gowari deaths from the flow of events, the commission has left many a probable culprit off the hook.

It still remains beyond comprehension why the then chief minister Sharad Pawar

or any of his cabinet colleagues did not deem it necessary to take some time off from the legislature proceedings to attend to the long pending grievances of the tribe. That the then chief minister had no inkling of what was happening outside the precincts of the vidhan sabha is hard to believe, because the norm is for the chief minister to be briefed every morning about the happenings in the state. Moreover, the police deposed before the commission that they had contacted the then CM's personal secretary to explore the possibility of him being available to meet the gathering. By failing to interrogate the personal secretary, the commission stands guilty of not comprehensively probing into the incident. Clearly, the resignation of Madhukarrao Pichad, the then minister of tribal affairs, in the wake of the Gowari tragedy was a token gesture of a beleaguered government which had to face elections in few months. Now even Pichad stands cleared of the charges. By turning a blind eye to the callous indifference shown by those in power to the adivasis' demand and to the ruthless treatment meted out by the police to the victims of the stampede, the commission has failed to deliver justice.

UTTAR PRADESH

Caste War in BJP

WITH a reputation for toughness, it is not surprising that UP chief minister Kalyan Singh has rubbed powerful interest groups within and outside his party the wrong way. The Uttar Pradesh Loktantric Congress (UPLC) and the Jantantric Bahujan Samaj Party (JBSP), the BJP's coalition partners in the state had issued veiled threats of an alternative political formation in the state a few months ago when the special task force (STF) of the state police uncovered links of eight ministers to the slain mafia don Sri Prakash Shukla. Six of these ministers belong to the UPLC and the JBSP. And now by dismissing education minister Ravindra Shukla for mishandling the 'Saraswati vandana' issue, Kalyan Singh has taken on political heavyweights closer to the BJP. Besides providing the rival camp in the state BJP with a rallying point, Kalyan Singh's action has incurred the displeasure of the Sangh parivar.

The Sangh parivar is annoyed for two reasons. First, the minister was removed over an issue which in fact is the brain-child of one of the parivar outfits and the parivar expected the concerned minister to be defended rather than axed in the wake of the controversy over the issue. Second, Kalyan Singh's action came at a time when the parivar was making out a case that the BJP's debacle in the assembly elections in the three north Indian states was a result of its failure to push the hindutva agenda with sufficient vigour. Having had to beat a hasty retreat over Saraswati vandana at the education ministers' conference in Delhi not long ago, the sacking of the UP minister over the same issue amounted to flouting the writ of the Sangh parivar in its own bastion.

With the Sangh parivar thus ruffled, the upper caste lobby within the BJP has reactivated itself. Ever since the murder of Brahmadutt Dwiwedi, Kalyan Singh's main upper caste rival within the party, rivalry between the upper castes and the backwards has been sharp in the UP BJP. Sakshi Maharaj, a BJP MP from Farrukhabad and a caste-fellow of the chief minister recently accused upper caste party leaders of plotting to eliminate him and the chief minister with the help of Om Prakash Shukla, brother of Sri Prakash Shukla. In fact, the STF investigation ordered by Kalyan Singh into politicians' links with Sri Prakash Shukla was aimed more at upper caste leaders within his own party than at the UPLC or the JBSP.

The resounding defeat in the elections to the Vidhan Parishad from the graduates' and teachers' constituencies and the sharp fall in the BJP's vote share in the Agra assembly by-election have provided an impetus to the upper caste BJP leaders' campaign against the chief minister. The sacking of the education minister has been used to bolster their argument that the educated and the upper castes are drifting away from the party. Kalyan Singh's riposte has been to raise the spectre of fresh elections in which backward caste support would be crucial for the BJP.

INDIA-SRI LANKA TIES

Trade Diplomacy

IT would be far-fetched to believe that the recent 'fast track' trade agreement with Sri Lanka would make a dramatic impact on the nature of trade between the two countries, or Sri Lanka's balance of payments for that matter. The significance of the treaty lies in the fact that it is a diplomatic manoeuvre to change the nature of relations between the two countries. For India, it is part of an attempt to transform its image in the region; at the least a confidence-building move that became imperative in the aftermath of the nuclear tests, but in a larger perspective a reflection of the direction taken in SAARC towards creating and sustaining regional markets, partnerships and alliances. And for that credit must go to the political leadership in the two countries.

For, in the days and weeks before the treaty was actually signed, there was considerable opposition, not so much to the idea of a treaty as to the nitty-gritty of its contents. In Sri Lanka although the opposition did not want to appear to be blocking the move, there were misgivings that President Chandrika Kumaratunga in her eagerness to build bridges with India might allow Sri Lanka to be hemmed in with too many restrictions. The anxiety was hardly unreasonable, considering the current imbalance in Sri Lanka's bilateral trade with India. And in India there are doubts whether this country would benefit from such an agreement, or for that matter whether one was needed at all given India's commitment to do away with import restrictions on 2,000 products of export interest to Sri Lanka and other neighbours. Most importantly, would the agreement also lead to Sri Lanka being allowed to import tea in bulk, a long-standing demand from Sri Lanka, and a prospect which is viewed with apprehension by the Indian tea industry?

With the two heads of government keen on signing at least a draft agreement, the treaty took shape, though Sri Lanka had many safeguards written into it. The treaty will cover a large number of products. India has agreed to bring import duty down to zero with respect to some 1,000 items over a span of three years. In return Sri Lanka will eliminate tariffs on 900 Indian goods within eight years. The list of products will be drawn up in the next three months. A number of qualifications have been incorporated in the agreement. Concessions are to be limited to 25 per cent on textiles, an item of interest to India. Some textile items – silk and silk waste, carpets and other textile floor coverings, articles of apparel and clothing accessories – have been placed in a so-called negative list. India is to allow a 50 per cent margin of preference on imports from Sri Lanka except on items in the negative list. Both countries have agreed to give 100 per cent tariff concession on specified items, lists of which are to be drawn up.

One contentious issue was the indigenous value addition clause or the country of origin rule which assumes importance in regard to preferential tariff treatment. Minimum value addition of 35 per cent has been agreed upon, but if the raw material is sourced from either of the two countries minimum value addition need be only 25 per cent. The agreement also provides other safeguards: if any product which is given preferential treatment is imported into either country in such quantities as to "cause or threaten to cause serious injury" to industry in the importing country, that country may suspend the preferential treatment with prior consultation, which too may be dispensed with in critical circumstances. Such withdrawal of preferential treatment is also valid in the event of balance of payments difficulties. Also, both countries are permitted to restrict imports when prices are influenced by unfair trade practices like subsidies or dumping.

Much depends on how these qualifications are interpreted by each country. But given that both countries, for their particular purposes, need to strengthen regional ties, the India-Sri Lanka trade agreement is likely to be projected as a model for the SAARC region.

CURRENT STATISTICS

***EPW* Research Foundation**

The new year has opened with some encouraging news. The Sensex jumped 11 per cent in the first week crossing 3,400 due to FIIs' interest. The annual inflation rate, measure by the WPI, at 5.3 per cent has been the lowest now for 35 weeks. This has followed a sharp fall in prices of primary food articles and manufactured food products. However, annual monetary growth has accelerated to 19.6 per cent. Non-food credit expansion over end-March at 3.6 per cent remains subdued as in last year. Exports fell by 4 per cent, while imports rose by 9.5 per cent during April-November 1998, resulting in a trade deficit of $ 6.7 billion. But foreign currency assets continue to expand and are near $ 27 billion

Macroeconomic Indicators

Index Numbers of Wholesale Prices (1981-82 = 100)	Weights	Dec 26, 1998	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
All Commodities	100.00	354.8	-1.0	5.3	5.0	5.3	5.2	5.3	6.9	5.0	10.4
Primary Articles	32.30	385.1	-2.6	10.0	3.3	10.7	6.3	5.5	7.0	5.4	12.7
Food Articles	17.39	446.7	-3.9	10.5	3.5	13.6	7.0	4.0	9.6	9.8	11.9
Non-Food Articles	10.08	386.7	-0.4	12.1	2.6	8.5	5.0	8.5	3.5	-1.9	15.5
Fuel, Power, Light and Lubricants	10.66	382.1	0.1	1.2	13.0	-0.5	9.4	11.4	16.9	3.7	2.4
Manufactured Products	57.04	332.5	-0.2	3.4	4.5	3.2	3.8	4.0	4.9	5.0	10.7
Food Products	10.14	342.7	-1.7	4.1	7.2	5.2	6.5	5.5	14.1	-0.7	8.1
Food Index (computed)	27.53	408.4	-3.2	8.4	4.7	10.9	6.8	4.5	11.1	6.3	10.6
All Commodities (Average Basis) (April 4 - December 26, 1998)	100.00	352.0	-	7.0	5.3	7.6	4.7	4.8	6.4	7.8	10.9

Cost of Living Indices	Latest Month	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
Industrial Workers (1982=100)	433.0^{10}	3.1	18.6	5.5	13.9	4.0	8.3	10.0	8.9	9.7
Urban Non-Man Emp (1984-85=100)	350.0^{11}	0.9	15.5	5.2*	12.2	4.1	7.2	10.2	8.2	9.9
Agri Lab (1986-87=100) (Link factor 5.89)	310.0^{11}	2.0	18.3	0.0	14.0	0.0	3.8	10.5	7.2	11.1

Money and Banking (Rs crore)	Dec 18, 1998	Variation: Over Month	Over Year	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96
Money Supply (M_3)	925253	7633(0.8)	151731(19.6)	99864(12.1)	71674(10.2)	123451(17.6)	97841(16.2)	72581(13.7)
Currency with Public	162283	3564(2.2)	17794(12.3)	17101(11.8)	12402(9.4)	13095(9.9)	13829(11.7)	17577(17.5)
Deposit with Banks@	758951	3706(0.5)	134222(21.5)	82347(12.2)	58161(10.3)	110036(19.4)	84162(17.5)	55042(12.9)
Net Bank Credit to Govt	380635	1879(0.5)	59182(18.4)	50016(15.1)	32834(11.4)	42000(14.6)	30840(12.0)	35360(15.9)
Bank Credit to Comml Sector	450103	4371(1.0)	57224(14.6)	17913(4.1)	16572(4.4)	55883(14.9)	31659(9.2)	51925(17.7)
Net Foreign Exchange Assets	137050	1055(0.8)	19766(16.9)	10481(8.3)	11788(11.2)	21072(20.0)	23356(28.4)	3109(3.9)
Reserve Money (Dec 25)	245495	5565(2.3)	37691(18.1)	19262(8.5)	7820(3.9)	26248(13.1)	5527(2.8)	25176(14.9)
Net RBI Credit to Centre	148659	2203(1.5)	26098(21.3)	15042(11.3)	1859(1.5)	12915(10.7)	1934(1.6)	19855(20.1)
RBI Credit to Bks/Comm Sector	23401	3671(18.6)	9304(66.0)	8119(53.1)	845(6.4)	2029(15.3)	-15557(-54.0)	8747(43.6)
Scheduled Commercial Banks								
Deposits (Dec 25)	681970	2404(0.4)	118930(21.1)	76560(12.6)	57441(11.4)	99811(19.7)	71780(16.5)	46960(12.1)
Advances	340301	3542(1.1)	45580(15.5)	16222(5.0)	16320(5.9)	45677(16.4)	24386(9.6)	42455(20.1)
Non-Food Advances	324086	4054(1.3)	41476(14.7)	12492(4.0)	11806(4.4)	40790(15.1)	26580(10.9)	44938(22.5)
Investments (for SLR purposes)	248961	-2319(-0.9)	32975(15.3)	30256(13.8)	25473(13.4)	28192(14.8)	25731(15.6)	15529(10.4)
Commercial Investments	44116	17(1.0)	11168(33.9)	11032(33.3)	13537(69.7)	13673(70.4)	4412(29.4)	925(6.6)

@ Includes Rs 17.945 crore on account of proceeds from RIBs, excluding which the year-on-year growth of money supply would be 17.0 per cent.

Index Numbers of Industrial Production (1993-94=100)	Weights	Oct 1998	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Full Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
General Index	100.00	136.7	137.4(3.6)	132.6(6.2)	137.6(6.6)	129.0(5.5)	122.3(12.8)	108.4(8.4)
Mining and Quarrying	10.47	118.0	115.6(-0.7)	116.4(5.0)	122.4(5.9)	115.6(-2.0)	117.9(9.6)	107.6(7.6)
Manufacturing	79.36	140.1	140.6(3.8)	135.4(6.2)	140.5(6.7)	131.8(6.7)	123.5(13.8)	108.5(8.5)
Electricity	10.17	129.5	135.2(6.3)	127.2(6.9)	130.0(6.7)	121.9(3.9)	117.3(8.1)	108.5(8.5)

Capital Market	Jan 8, 1999	Month Ago	Year Ago	1998-99 So Far: Trough	1998-99 So Far: Peak	1997-98: Trough	1997-98: Peak	End of Fiscal Year: 1997-98	1996-97	1995-96
BSE Sensitive Index (1978-79=100)	3433(4.6)	2946	3598(9.4)	2783	4281	3210	4548	3893(15.8)	3361(-0.2)	3367(3.3)
BSE-100 (1983-84=100)	1534(-2.1)	1308	1567(7.5)	1242	1890	1401	1980	1697(15.9)	1464(-5.5)	1549(-3.5)
BSE-200 (1989-90=100)	353(0.3)	303	352(8.3)	289	429	314	440	377(14.9)	328(-5.0)	345(-6.3)
S and P CNX-50 (Nov 3, 1995=1000)	986(-6.8)	853	1058(11.7)	812	1213	941	1140	1117(15.4)	968	na
Skindia GDR Index (Jan 2, 1995=1000)	669(-23.1)	569	870	515	1015	765	1320	940(1.1)	930(-4.4)	973(-0.6)

Foreign Trade		November 1998	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
Exports	Rs crore	10812	89897(10.1)	81623(7.7)	126286(6.3)	118817(11.7)	106353(28.6)	82674(18.5)
	US $ mn	2551	21433(-5.2)	22598(5.2)	33980(2.6)	33470(5.3)	31797(20.8)	26330(18.4)
Imports:	Rs crore	14734	117948(23.8)	95254(10.4)	151554(9.1)	138920(13.2)	122678(36.3)	89971(23.1)
	US $ mn	3477	28121(6.6)	26371(7.9)	40779(5.8)	39132(6.7)	36678(28.0)	28654(22.9)
Non-POL:	US $ mn	2917	24094(14.8)	20988(13.8)	32562(11.9)	29096(-0.2)	29152(28.3)	22727(29.5)
Balance of Trade	Rs crore	-3922	-24222	-13[illegible]31	-25268	-20102	-16325	-7297
	US $ mn	-925	-5784	-3774	-6799	-5663	-4881	-2324

Foreign Exchange Reserves (excluding gold)	Jan 1, 1999	Jan 2, 1998	Mar 31, 1998	Variation Over: Year Ago	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95	1993-94
Rs crore	114659	94477	102511	20182	12148	14102	22136	21649	-7302	18402	27430
US $ mn	26997	24096	25976	2901	1021	1727	3607	5243	-3690	5640	8724

Notes (i) Superscript numeral denotes month to which figure relates, e g, superscript 10 stands for November, (ii) Figures in brackets are percentage variations over the specified or over the comparable period of the previous year. na: not available. neg: negligible. * unchanged

Money Market Rates of Interest

(Per cent per annum)

Weekended Fridays		December 1998				November 1998				December 1997			
Instruments	Jan 1	25(RF)	18	11(RF)	4	27(RF)	20	13(RF)	6	26	19(RF)	12	5(RF)
Call money rate (Range: weekly)	na	8.60-9.50	5.60-9.00	7.90-8.20	5.75-8.10	7.10-9.00	5.50-9.15	7.85-8.35	5.00-8.80	7.75-14.0	0.75-30.00	6.50-9.00	0.10-9.00
Prime Lending Rates: Banks													
(Major Public Sector)	12.75-13.00	12.75-13.00	12.75-13.00	12.75-13.00	12.75-13.00	12.75-13.00	12.75-13.00	12.75-13.00	12.75-13.00	12.50-13.00	12.50-13.00	12.50-13.00	12.50-13.00
IDBI	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	12.50-14.00	12.50-14.00	12.50-14.00	12.50-14.00
ICICI	13.50-14.00	13.50-14.00	13.50-14.00	13.50-14.00	13.50-14.00	13.50-14.00	13.50-14.00	13.50-14.00	13.50-14.00	12.50-14.00	12.50-14.00	12.50-14.00	12.50-14.00
IFCI	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14.50	14.00	14.00	14.00	14.00
Treasury Bills:-													
14-Day (RBI Auction): Primary	9.13	9.13	8.61	8.35	8.35	8.35	8.61	8.09	8.61	7.04	7.04	7.04	7.04
91-Day (RBI Auction): Primary	9.54	9.58	9.46	9.46	9.37	9.54	9.46	9.33	9.50	7.21	7.21	7.21	7.21
Secondary: DFHI (mid-point of bid and offer)	..	9.45	9.46	..		..	.	9.24	9.63	...	...	..	...
All SGL trading (Weighted YTM)	9.12	8.79	8.75	8.39	8.97	8.97	8.93	8.78	9.30	7.05	6.81	6.49	5.96
364-Day(RBI Auction)													
Primary	10.47	-	10.50	*	10.51	*	10.62	*	10.67	*	7.98	*	7.98
Secondary: DFHI (mid-point)	10.45	10.34	10.42	10.35	10.40	10.43	10.44	10.46	10.61	8.70	8.68	8.22	7.96
All SGL trading (Weighted YTM)	10.31	10.34	10.37	10.29	10.15	10.42	9.91	10.17	10.35	5.64	8.64	7.91	7.66
State Govt loans (Coupon rates)	-	12.50 (10-year)	-	-	-	-	-	-	-	-	-	-	-
All SGL trading (Weighted YTM)	12.48	12.38	12.39	12.29	12.36	12.46	12.47	12.48	12.51	11.24	9.84	11.31	11.03
GOI Securities: Primary Auctions	*	*	*	11.47 (3-year)	*	12.60 (on tap. 20 year)	*	*	*	*	*	*	*
Secondary: All SGL trading (Weighted YTM)	11.27	11.24	11.27	11.34	11.16	11.27	11.18	11.31	11.13	10.75	11.09	10.72	10.20
PSU Bonds yield.-													
Tax free. NSE (traded, weighted)	10.12	9.83	9.67	10.03	9.91	10.05	9.92	9.91	9.08	9.04	9.02	8.96	9.03
NSE (Range: weekly)	9.50-10.43	9.51-9.94	9.67	8.93-10.35	8.96-10.08	9.37-10.31	9.84-10.09	9.83-9.93	8.34-9.95	8.94-9.13	8.87-9.06	8.84-9.51	8.90-9.39
Taxable: NSE (traded, weighted)	14.75	15.45	14.75	14.23	14.31	.	14.18	14.77	14.41	13.03	11.86	12.63	12.80
NSE (Range: weekly)	13.50-14.84	15.45	14.72-14.79	12.14-15.51	14.01-14.48	.	13.73-15.89	14.75-14.77	13.91-15.84	13.06-13.54	9.91-13.54	9.00-14.03	10.29-14.15
Commercial Bills: DFHI (Rediscount rate)	..	..	..	..	..	..	..	..	.	10.50	10.50	10.25	10.00-10.25
CP: Primary market (90 days)	10.60-11.00	10.60-10.90	10.30-10.80	10.30-10.80	10.30-10.80	10.30-10.70	10.50-11.00	10.50-10.80	10.90-11.25	9.25-11.25	9.25-11.25	9.00-11.00	8.75-10.75
Secondary. DFHI (Discount rate)	.	..	..	..	.	..	..	..	..	11.00	11.00	10.75	10.50-10.75
Secondary market/NSE	10.20-11.00	9.78-10.82	9.74-10.78	9.73-10.87	9.78-10.62	9.47-11.25	9.25-10.77	9.50-11.00	9.10-10.88	...	9.05-9.40	8.10	...
CDs: Primary market	10.30-10.60	10.30-10.50	10.20-10.60	10.20-10.60	10.20-10.60	10.10-10.50	10.20-10.60	10.30-10.60	10.50-11.00	9.25-11.25	9.25-11.25	9.00-11.00	8.75-10.75
Secondary. DFHI (Discount rate)	..	.	..	..	..	..	..	..	..	10.50	10.50	10.25	10.00-10.25
Inter-corporate deposits (30 days)#	10.50-11.00	10.50-11.00	10.50-11.00	10.50-11.00	10.50-11.00	10.50-11.00	10.50-11.00	10.50-11.00	10.50-11.50	10.00-13.00	10.00-13.00	10.00-13.00	9.50-12.75
(90 days)	11.25-11.75	11.25-11.75	11.25-11.75	11.25-11.75	11.25-11.75	11.25-11.75	11.25-11.75	11.25-11.75	11.50-12.50	13.00-15.00	13.00-15.00	13.00-15.00	12.50-13.75
Memorandum Items:													
(i) Forward premia on the US dollar in the domestic inter-bank market (annualised in per cent per annum) (Weekly average)@													
Spot/Cash	4.15	6.11	3.64	2.32	3.01	2.81	3.01	2.59	3.88	7.14	12.55	5.53	5.03
One-month	5.05	5.08	5.45	5.05	5.67	4.76	4.71	4.51	4.76	9.64	10.02	9.62	8.61
Three-month	6.05	6.22	6.53	6.27	6.58	6.13	6.29	6.09	6.24	10.01	10.71	9.36	7.92
Six-month	7.27	7.35	7.62	7.57	7.72	7.56	7.61	7.27	7.22	9.36	9.63	8.68	7.29
Twelve-month	8.24	8.30	8.47	8.46	8.53	8.35	8.16	7.77	7.76	8.56	8.42	7.22	6.74
(ii) RBI Reference Rate(Rs /US$)	42.47	42.54	42.54	42.59	42.54	42.52	42.40	42.32	42.33	39.24	39.23	39.73	38.65

ICD figures till September 1998 are for a tenor of 60 90 days for Blue Chip and Non-Blue Chip Companies respectively. RF means reporting Friday for fortnightly reporting of conditions of banking business and the fortnight serves as the reserve maintenance period for scheduled commercial banks @ Based on daily quotations supplied by Mecklai Financial and Commercial Services, Bombay. Weekly averages of inter-bank premia annualised per cent per annum. - no floatation .. no trading. * no auction. na not available. YTM = yield to maturity

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CONTENTS

We take this opportunity of wishing all our readers friends and supporters a happy and prosperous New Year.

Light Without Heat

THE existence of an independent weekly : deal primarily with economic problems (the country, and then, with the broad p(litical ones in so far as they issue out of the fo mer, is a dour need. At present economic discu sion in India suffers from grievous defects. I' paucity is deplorable. On the eve of Industri Revolution, each nation of the West, led b England, produced enormous literature in th shape of pamphlets and reports on which maste minds built their systems and gave lead. Th impact of a new economic order on India thre up our first batch of economists; and they su ceeded in making their partial but honest an lysis popular on the political platform.

Since then our economic development ha gone ahead; the character of Indo-British rel tion has changed; the second revolution of En land has helped India's industrial growth to th point where it does not compete with England' production of capital goods; capitalism of a ce tain type has come to stay, and yet it has bee starved of the necessary strength and opport

nities to expand; our agriculture, gradually shedding its feudal obligations and subsistence commitments, is well on the way to become a food-industry; our terms of trade, balance of payments, avenues of export are taking new lines making hay of mercantilist doctrines which a defensive political attitude, the anti-aspect of anti-British Imperialism, was bound to foster. That such momentous developments have not been adequately reflected in Indian thought on the subject is an unfortunate but noticeable fact.

The objective situation has fairly ripened but beyond a general awareness, prodded by the high cost of living, nothing of significance has emerged. Even the discussion on Sterling Balances has proceeded more on the basis of political denial of a moral right than on economic grounds. The governmental deal on that count is taken at best to be one of Cameralist arrangement of two administrations, one whose national existence depends upon export of capital goods to buy her primary imports, and the other making a virtue of necessity and resenting it. On the other side, many who are eager to take the next step forward have vague notions of what that one should be. Public control, State management, nationalisation, socialisation, managerial revolution, such words and more are bandied about without responsibility to their connotations and mutual differences. A verbal miasma hangs like a pall over our progressive thought. Wishes are great drives, but economic thinking is surely more than wish-fulfilment.

And yet Indian intellect does not seem to have diminished in the course of our national struggle. True that the accent has been on the transfer of political power. Equally true that our traditional metaphysical angle got the support of a moral view of means to achieve political ends. It may also be held that Gandhiji's understanding of the material-rural core was brushed asidxe by parliamentarianism, leaving the detritus of nostalgic villagism and anarchistic decentralism to a few who called themselves Gandhian economists. May be that our scholars could not work off the unreality they had imbibled in London or Cambridge and would not understand the realities of the evolving situation. Still, it is hard to believe that the paucity of genuine economic discussion is solely traceable to the general features of Indian intellect or to a deterioration in the mental quality of those who presumably possess it. Men and women there still are in the country who can, if given data, think about the country.

Therefore, a more plausible reason, call it an additional reason if you like, seems to be the absence of data. The Government had criminally neglected their collection and analysis. When they did not, the reports were published late, and not easily available. That state of affairs continues in the main. It is an open secret that India's delegates to International Conferences are the least equipped of all. We have no production, no wage, no investment censuses. So when our delegates demand foreign aid or press for favourable terms in a trade pact, they cannot produce figures and lean upon 'Asian' sentiments. Similarly, when our ministers spread the slogan of "Produce or Perish", we are left in blissful ignorance of the extent of production necesasary to bridge the gulf between the present supply and the optimal one, between the level of wages and the level of prices. No wonder that all manner of prejudices rush into this vacuum. One such is the bogey of the spiral; another is the quantitative explanation of inflation; and a third is labour's slow-down. These are examples of positive ignorance, – alas, so useful to vested interest' The partial ones are probably as great in number.

About Government publicity the less said the better. The Government have whatever facts there are in the country, and let us concede, all the best brains to boot; but they are singularly disinterested in the dissemination of information on which the public can build their own opinions. Once a Government begins to mistrust the role of information in the shaping of events, it depends on publicity, that is, on the crystallisation of emotions. Besides, there was a time when this technique worked well. Now that the men who run the Government have earned the country's gratitude by winning independence for it, they have a limited choice of emotions to draw upon. The sense of national unity is one, but it is not enough. To think that it is so, is a contribution to the crisis in confidence. Probably the democratic approach towards the people, that which does not exhaust itself by considering them as legs of dead frogs, to be excited by currents of appeals for unity, sacrifice, trust, patriotism, etc., but takes them as human beings capable of understanding complicated problems in the context of their interests and aspirations, – this approach can resolve the present tension between the Government and the people.

Those who are closely following the proceedings of the Constituent Assembly have noted with regret the initial attitude of mistrust of the people which the lawyer-framers and sponsors of the Constitution have betrayed. As if fundamental rights were a matter for the lawyers; as if ordinary men and women just cannot understand the implications of freedom! It is not a question of Hindi or Hindustani or Urdu. That controversy clouds the issue; wicked men have suggested worse things. The issue is simple; are the people to be treated as intelligent human beings or not?

More serious is the invasion of vested interests in this vacuum between facts and understanding. Nearly all our journals belong to powerful pressure-groups, some of whom run their economic weeklies. They are ably conducted; they are 'subtle', 'dispassionate' and 'detached'; they carry the weight of learning and information. But a close scrutiny reveals their onesidedness. While one presses for an open alliance with the American bloc, without mentioning and explaining the implications of the American Foreign Assistance Act of 1948 (E.C.A.), particularly its sections 112, 115 and 118, another publishes the meaningless statistics of man-days lost by strikes without analysing them or showing their relation to the curve of production, or even their proportion to man-days lost by legally preventible factors, like accidents, lock-outs, play-off and sickness. In short, such weeklies are like the Irishman, always 'agin' the Government; its foreign policy of 'neutrality', its 'half hearted economic policy', and its 'appeasements'. The crisis in confidence is well advertised there; only that confidence is a two-way traffic is hardly suggested.

It is impudence to believe, much less to claim, that our venture will close the gap between data and analysis, between administrative knowledge and public ignorance or apathy. We will try our best to do so. But our main attitude will be governed by our faith in the function of knowledge in the resolution of crisis and by our conviction that common men and women in India are more than a bundle of reflexes like Pavlov's dogs. In this our readers will have the assistance of some of the best men in the country, outside the offices of Government and business firms.

Fifty Years Ago

Ashok Mitra

OF the Chaudhuri brothers, the fourth and youngest, Sankho, the sculptor, was away in Paris. The rest of the brothers were in Mumbai (nee, Bombay). The second brother, Debu, held a comfortable assignment with a multinational company assembling and distributing electronic products. The third brother, Hiten, was a gadfly, with varied business interests: production and distribution of films, export and import of raw as well as semi-processed cotton, presiding over an engineering concern producing small tools and equipment, managing a printing press, and so on. The eldest brother, Sachin, was a *pucca* patriarch. The brothers adored him and were in awe of his scholarship and intellectual powers. He had lived the life of a nomad ever since he disappeared from Dacca in 1927 after faring disappointingly in the master's examination in economics. His performance in the examination was no reflection on his scholastic talent. His friend and classmate A K Das Gupta used to recall Sachin Chaudhuri's countless escapades: he refused to sit for the examination in the year it was due, 1926, and embarked on a Bharat darshan instead and scampered back to Dacca even as the next year's examination schedule was announced. He did not even know the syllabus. So what, sang-froid was sang-froid. When the results were announced, Sachin Chaudhuri, it was seen, had just scraped through. Half-dejected and half-embarrassed, he chose to decamp from Dacca.

Debu and Hiten had meanwhile nestled in Bombay and, after an interval of some months, the senior brother joined their sometimes separate, sometimes joint household. Sachin Chaudhuri simply pottered around. His charm, his wit and the sharpness of his mind drew in no time a flock of friends and advisers, politicians, journalists, social philanthropists, a handful of economists too. Sachin Chaudhuri himself did not take his economics seriously, but others did. D Ghosh, who was at the moment on the economics faculty of the University of Bombay, took the initiative to arrange a university research fellowship for Sachin. The scholarship money came in handy while he would stand rounds of drinks for acolytes in Churchgate restaurants. Economic research otherwise, he had not the least doubt, was not his cup of tea. Sachin Chaudhuri imported the Bengali *adda* into Bombay. He perhaps took a proprietary pride in the fragility of the *adda*. There was no ostensible means of livelihood, for the research fellowship could not obviously be renewed, and in any case the money it offered was small beer. Hiten introduced him to Himansu Rai and Devika Rani. Both were bowled over. Sachin became, of all things, the manager of Bombay Talkies. Whether precisely on account of his appointment, or sheer happenstance, Bombay Talkies soon downed its shutters. Sachin Chaudhuri was a free bird once more, even though the friendship with Devika Rani endured.

At that juncture, Sachin Chaudhuri was a vagabond *par excellence*. The man nonetheless continued to have a fearsome reputation – on account of the clarity of his writing, the range of his scholastic interests and the depth of his political and economic commentaries during exciting sessions in newspaper offices and Apollo Bunder cafes. His links with friends in academia such as A K Das Gupta or B N Ganguli did not snap and they did not ever give up the dream of encouraging him back into serious economics. Sachin Chaudhuri, however, had diverse passions – and circles of friends and acquaintances straddling the spectrum of academia and politics and business would all compete to share an evening's company with him. By now he was known as a confirmed bachelor. His sartorial style – white 'khadi' dhoti and kurta, and an occasional 'chaddar' or shawl – was passport to the most exclusive places and mansions. The horrors of partition could not quite drain away the euphoria of independence, and Sachin Chaudhuri's hero, it goes without saying, was Jawaharlal Nehru. Hiten had a way of sidling into famous households, including the Nehru household. Sankho's wife, Ira, had family links with the Nehrus. Sachin Chaudhuri had occasion to meet Nehru, both before and after independence. But he kept his distance; he was no job or licence seeker.

As the cliche goes, destiny nonetheless was awaiting him. Socio-economic dynamics apart, accidents too play a role in the shaping of history. A few months after independence, the government in New Delhi decided to pick a trade delegation to visit Europe and North America to explore the prospects of expanding the country's foreign trade. Hiten Chaudhury found himself a member of the delegation, which was led by a well known Indian economist who believed in maintaining friendly connections with prominent business families in Delhi, Calcutta Bombay and Madras. Whatever the reasons, Hiten Chaudhury took an immediate dislike of the economist leader of the delegation; he was, in Hiten's view shallow to the core; such men, given their prejudices and preconceived notions would be dangerous presences in any arena. it would be monstrous if such men would have the ear of the nation's leaders and assist them to shape their economic ideas.

Hiten Chaudhury returned with an *idee fixe*. He *knew* the depth of his senior brother's intellect and the range of his scholarship. He must be persuaded to start an economic journal, pronto, to prevent the genre of mischief-doing individuals such as Hiten Chaudhury's delegation leader was capable of. Hiten's enthusiasm bubbled over. He found the New Jack Printing Works (address: Globe Mills Passage, Off Delisle Road) at his disposal he would persuade his closest business partners to set up a joint-stock venture, he had already arranged for office premises for the journal in a by-lane veering off from Apollo Street, he had his very wide contacts in the advertising world, it was now for the senior brother, the patriarch of the family, to give his consent to be editor: after all, filling the pages of the journal with thoughtful, attractive pieces of writing would pose no problem for him he had his academic friends who had stayed loyal to him from his Dacca University days, he had acquaintances within the fold of the university faculties one after another. he could bank upon constant help and support from the research staff of, for instance, the Reserve Bank of India, so what was he hesitating for? All he had to give up was the often-weary-sounding column for the *Evening Standard*. But he had a kingdom to gain.

The reservation Sachin Chaudhuri felt was not difficult to comprehend. He was wedded to his vagabond living, now he was being asked to enter into a commitment, a commitment to be regular and responsible. The fear of entrapment was genuine; at the same time, the allure of grand adventure into the hitherto unexplored terrain of tendering advice on crucial issues to the nation's highest from an independent pulpit could hardly be ignored. The brothers, and friends, hemmed him in, and Sachin Chaudhuri succumbed. *The Economic Weekly* was born.

That event took place exactly 50 years ago. The transformation of *The Economic Weekly* into *Economic and Political Weekly* occurred nearly 17 years later. The *EPW* represents a continuum of what the *EW* hoped and dreamt. This reverie of the circumstances of the latter's birth has

therefore a certain relevance for the present generation of the journal's acolytes. From the very first issue, *The Economic Weekly* became a duality, and that characteristic has not ceased to be over these 50 years. Sachin Chaudhuri's cronies from coffee bars and Dalal Street – journalists, stock tipsters, political workers of different shades and hues, some outright bums – took honorary lease of the first half of every issue of the journal: comments, often cheeky, on current political and economic developments, on fluctuations in share prices, on who was conspiring against whom in New Delhi's South Block or Bombay's Mantralaya, on the reasons a particular block of industrial licences went to industrial house A rather than to industrial house B, and other gossip of similar ilk. The second half of the *Weekly* was taken over, through a gradual process, by the academic crowd from the universities and research institutions. This unusual coexistence of the mundane with the highly abstract created the ambiance of an unstable equilibrium, an equilibrium which threatened to break down any moment. It did not, and half a century has elapsed without much murmur of dissatisfaction from any quarter. Perhaps the only other instance of a weekly publication daring to cram its pages with diagrams and mathematical formula is the *Ekonomist* from the Netherlands, and yet that journal too has not had the temerity to carry nonsense verse and pictorial cartoons as *The Economic Weekly* has done in its various phases. The first instinct of an aspiring social scientist in the subcontinent was to get himself or herself published not in a so-called scholarly journal, but in *The Economic Weekly*. At the same time, parliamentary debates have taken place in the two august houses on the basis of a report or a comment in the *EW* or *EPW*. Ever since Jawaharlal Nehru made it a habit to flaunt a copy of *The Economic Weekly* on his desk, the snob value of the journal has spread and spread, ministers and civil servants have regularly subscribed to the journal while scrupulously ignoring the flurry of advice strewn in its pages.

But, then, Sachin Chaudhuri exuded a magnetic charm. Part of this charm was a Chaudhuri heirloom. Once the journal got floated, with Hiten Chaudhury unobtrusively taking charge of the crass details of management, the crowd flocked either to the *Weekly*'s cramped offices in the Dalal Street neighbourhood or to Sachin Chaudhuri's digs at Churchill Chambers. Old friends, and new ones, foregathered. Within the space of a few months *The Economic Weekly* became a cause. Its editorial notes were idiosyncratic, often naughty, often cocking a snook at the establishmentwallas, but it never strayed away from the moorings of the civilisation Tagore had preached or the formula of tolerance Nehru expiated upon. It was therefore almost inevitable that D P Mukerji from Lucknow would contribute *The Economic Weekly*'s first editorial article, 'Light without Heat', in the inaugural issue, and was followed soon after by A K Das Gupta with his rigorous piece on the theory of black-market prices. One had to wait only a while before Sachin Chaudhuri's retinue of admirers from the world of sociology and anthropology invaded the journal's pages.

To run a weekly journal, though, you needed a team to do the sustained work of deciding on themes to focus, writing, copy editing, proof reading, liaising with the press, keeping channels of communication open with the post office and distribution outlets. A vagabond, a near kindred soul, almost as contemptuous as the editor himself, A Fernandes, soon turned up and was named the office manager. The impressionist style he adopted while taking care of the journal's administrative side matched Sachin Chaudhuri's haphazard modalities of editorial living.

Who kept Sachin company while he used to put the paper together, week after week, in that early phase? There is always a danger that in naming names, memory would play a trick or two and some names would be lost in the melee. Much enthusiasm was imported into the ramparts of the editorial office by the ever-ebullient B V Krishnamurti from the Bombay School of Economics and Sociology. Perhaps Sripad Rangnekar and Ramdas Honavar too were around, unobtrusively helping Sachin Chaudhuri to put together an editorial note on monetary theory or international trade. There was the devoted crowd of young scholars and college teachers who made a beeline for *The Economic Weekly* office once their daily official chores were ended: Hannan Ezekiel, Ravi Hazari, a few others. They contributed rough first drafts of notes, the editor honed them into shape, their gratitude knew no bounds. And how does one forget the Reserve Bank crowd: K S Krishnaswamy, his mind always a haven of maturity and his knowledge of economics mounting guard over the effervescence of quite a few young cubs, K N Raj freshly arrived from Ceylon, where he had done a stint in financial journalism, and his accumulated experience in this area, alongside his fondness for adapting Keynesian prescriptions for tackling emerging Indian situations, contributed to the essential flavour of what *The Economic Weekly* was. Others who were drawn in would include the sprightly Dharma Kumar, bitterly complaining that the editor under-assessed the quality of her economics merely because she had, according to him, 'a pretty head': the gender battle was obviously on that early. Should not one also mention Anand Chandavarkar, Vinoo Bhatt and Deena Khatkhate?

What about the Calcutta crowd though? Sushil Ghose, Sachin Chaudhuri's friend from his down-and-out days, would send in weekly notes on share price movements, and the editor would take meticulous care with Ghose's copy. The second brother, Debu, had several drinking cronies in Calcutta whose flair for writing modish prose was well recognised. One of the early ones to join *The Economic Weekly* stable was Niranjan Majumdar, who innovated the Calcutta Diary for the *Weekly* and, a Kingsley Martin admirer, signed his pieces with the nom-de-plume Flibbertigibbet. Samar Sen, the poet, always a lazy writer, could also be persuaded to contribute, his contributions becoming more regular once he encamped in Moscow. Nirmal Kumar Bose, the Gandhiite sociologist, would chip in now and then with an article, and soon a significant slice of *The Economic Weekly* was captured by M N Srinivas and his disciples.

The Delhi School of Economics was yet to find its feet, but *The Economic Weekly* had succeeded in generating awe inside the superstructure of officialdom. Several young economists and civil servants would contribute anonymous pieces to the Annual and Special Numbers of the journal and, once the issue was out, it became a guessing game amongst the contributors – as well as others – who had written which particular piece. There is also the famous apocrypha concerning the government's chief economist at that time, J J Anjaria. Anjaria, God's good man, was a cautious conservative who would not be hustled into views. A raw recruit in the economic division in the ministry of finance had sent an otiose note to Anjaria suggesting the directions along which the country's monetary policy ought to be forthwith reformulated. Anjaria read the note and nervously shoved it in a bottom drawer of his secretariat table. After waiting a full three months for an opportunity to discuss the contents of the note with Anjaria, the apprentice economist mailed the piece to Sachin Chaudhuri, who promptly printed it as the week's main editorial article. Chintaman Deshmukh, the finance minister, apparently read it with avid interest and wanted to have Anjaria's assessment of it. The entire

economic division was summoned in no time to Anjaria's chamber and long commentaries were despatched from the division to the finance minister's office, here and there endorsing Sachin Chaudhuri's editorial sermon, here and there entering a demure caveat.

Such folklore was the product of the time. *The Economic Weekly* was a forum which accommodated each and every point of view, reflecting the ethos of the immediate post-independence years. Economists at that point of time did not mind coexisting with colleagues who professed faith in a different structure of values. Each and all were welcome to send their musings to *The Economic Weekly*. Sometimes the major editorial pieces contradicted each other. They were bound to, since they were written by persons with altogether contrary approaches to life. This kind of phenomena did not worry Sachin Chaudhuri, nor did they worry the journal's devotees.

The dialectics was elsewhere in arriving at a decision on what shape the journal should take in the future. Sachin Chaudhuri, the instinctive anarchist, was full of distaste for method and orderliness. He refused to submit to accountability. Close friends drew up plans about how *The Economic Weekly* was to be run as a successful financial newspaper, with its uniqueness fully preserved, if only it were organised along sound business principles. The very idea was anathema to Sachin Chaudhuri. He wanted *The Economic Weekly* to remain a small-scale operation, a cottage craft so to say, and always in the maelstrom of a financial crisis. Hiten Chaudhuri had sleepless nights, but the patriarch was unwavering in his determination. So the debate was adjourned – and resumed after some while, for yet another inconclusive adjournment.

That in fact encapsulates the history of *The Economic Weekly* and, subsequently, the *Economic and Political Weekly* in the course of these 50 years.

A footnote to end this rambling semi-reverie. Raj and Romesh Thapar, tremendous friends of the journal in a later period, had not begun to visit Churchill Chambers in the early 50s. Krishna Raj too joined the paper, as an occasional correspondent from New Delhi, only in 1958. He moved to Bombay two years later. Perhaps one of these days he could be persuaded to describe the view from the bridge as he saw it.

COMMENTARY

A Russo-Sino-Indian Strategic Triangle

Signals Missed in India

Tan Chung

In the Russo-Sino-Indian triangular alliance proposed by Russian prime minister Primakov, what is happening now is progress only in Russo-Indian and Russo-Chinese relations without a corresponding advance on the Sino-Indian side. How China and Russia have quickly developed their relations after three decades of bitter quarrel has useful pointers for India-China relations. In this context, there have been some significant cues from China which have not been understood and appreciated in India.

THE Russian prime minister Primakov's proposal for a Russo-Sino-Indian triangular alliance during his India visit in December 1998 has aroused considerable international interest. The proposal is both progressive and reactive. Progressive because it is futuristic, pointing to a future direction which is both feasible and desirable. Reactive in the sense that it came immediately in the wake of 'Desert Fox', out of Russian frustration and resentment against the arrogance of the unipolar power that disregards the sensitivity of the United Nations and the sovereignty of another country. The proposal signifies the urge for a multipolar international system with reliable checks and balances.

The triangular idea is not new. Even at the beginning of this century, Lenin had wished that the peoples of Russia, India, and China unite together to ensure the success of a world revolution against imperialism. Lenin mooted this triangular alliance on the basis of the numerical strength of the three peoples as well as their anti-imperialist potential. This idea of Lenin had an impact on Jawaharlal Nehru. In his article entitled 'Why India Supports China?' dated August 21, 1938, Nehru wrote that the "national freedom movements in India, China" could fight the fascists, adding that "there is Soviet Union which has definitely discarded imperialism". He concluded the article by observing: "In the unity of these forces lies the answer to the fascist challenge" (*Selected Works of Jawaharlal Nehru*, vol 9, pp 209-10).

The world is like a stage, and there are always some countries playing the major roles. In the past, some European powers, particularly Britain, had occupied the central stage for a long time. They were replaced by the US during the entire 20th century. In the 21st century, the US will still be in the central stage while western Europe is emerging as another United States, the United States of Europe. However, the centre of gravity of the world is shifting to the eastern hemisphere which will, somehow, marginalise the importance of united western Europe. Surely, new roles will come to the central stage in the 21st century, particularly the eastern part of the Eurasian continent. The proposed Russo-Sino-Indian triangle is one natural outcome of such a global development.

No one is frightened by the word 'alliance' or 'axis' as we know that their erstwhile versions during the two world wars are a thing of the past. But, combination of forces and collaboration among nations will continue, and there is the possibility of a chain of alliances like the symbol of the Olympic Games with five rings strung together. The Russo-Sino-Indian ring, if formed, would be strung together with other rings. It would neither be anti-US, nor anti-smaller neighbours Judging from the civilisational background of the three countries – particularly India and China – such a triangular alliance would act as a magnet that can attract others to its side.

Though, right now, there is no sign of such an alliance and one will not take place at least in the next two to five years, it is possible that a semblance of an alliance may gradually appear, viz, the three countries not only improve their bilateral relations progressively, but begin to act on the international stage with co-ordination, co-operation and collaboration. There will be two dimensions. On the positive side, closer economic co-operation and trade, increasing trilateral consultations in international fora, and even an engagement in strategic areas, such as trading in sensitive, dual-use technology and materials not prohibited by international

law, etc. On the negative side, there would be an increasing reduction and even elimination of distrust and suspicion, let alone hostility, resolving outstanding disputes, replacing confrontation with the approach of amicable dialogue and negotiation.

Just as 'Desert Fox' was the immediate provocation, if not prime mover, of Primakov's proposal, the continuing arrogance of the unipole and the expansive mood of NATO, if not the new born Euro, etc, would create an exogenous push for the formation of the triangle. This, of course, does not eclipse the essential truth that such an alliance has to be a love marriage, not arranged. It would be different from the triangular affairs in real life where one party's love is another's jealousy or hatred – love should prevail among all the three. What is happenning now is only progress in Russo-Indian and Russo-Chinese love-making without a corresponding advance on the Sino-Indian side. From an architect's viewpoint even this is encouraging since two of the three dimensions of the triangular alliance are already taking place. Only if the India-China dimension arrives will the triangle be completed.

How China and Russia have quickly developed their love affair after three decades of bitter quarrel may point to the possible direction India-China relations can develop. Here, I wish to highlight something in China's recent developments which has not been understood and appreciated in India. Before his visit to India in November 1996, Chinese president Jiang Zemin had already obtained a consensus among the ruling elite that India was extremely important for China in the long run, that the Chinese government should shift from its earlier position of tilting towards Pakistan in its foreign policy *vis-a-vis* South Asia. Two high-level visits took place in the last couple of years. Jiang Zemin's visit to India was followed by that of the sixth highest Chinese leader, Wei Jianxing, who was here in December 1997. When Zhu Rongji became China's new premier in March 1998, he told a PTI correspondent that he would like to learn from A B Vajpayee, meaning he would like to visit India soon. Unfortunately, such signals have not been picked up in India and the Jiang Zemin regime was not given a chance to march in stride in improving relations with India before Pokhran II. If that had happened, the present stalemate in India-China relations would have been averted.

From a long-term point of view, much will depend on how India can enter into China's strategic schema which may be described as three concentric circles. In the innermost circle is China's economic development on which is built the prestige and survival of the Communist Party of China (which is celebrating its golden jubilee in governing the largest nation-state on earth this year). Here I must remind my readers that 20 years ago, Deng Xiapoing, the supremo of China, had effected a 180 degree turn in China's strategic thinking by conceiving that the danger of a world war had receded and China was not threatened by anybody. This drastic reversal in strategic thinking resulted in China's decision to integrate her economy into the mega-circulation of the world – essentially the capitalist world. China will not shift from this top priority (of rapid development of her economy) in her strategic schema because, on the one hand, she has achieved great success, and, on the other hand, she is still having a herculean task in providing 22 per cent of humanity (her own population) with only 6 per cent the world's natural resources.

In the middle circle is China's unfinished task of reunification of the country, and presenting and preserving one strong and stable China in the family of nations. Right now, the Chinese government is patient enough in waiting, hoping to have Taiwan back through a peaceful process. But it also would not tolerate any attempt to secede Taiwan from the mainland.

Finally, in the outer circle lie China's ideological concerns, ie, socialism, solidarity with the third world, maintenance of world peace, and a quest for an equitable and just world order.

India assumes eminent importance in this Chinese strategic schema only in the outer circle right now. India, of course, is important *vis-a-vis* China's unification, and so is Pakistan. Friendship and mutual trust with Pakistan is essential for China to maintain stability in Xinjiang just as it is essential for China to befriend India to maintain stability in Tibet. India's importance to China's economic development, though marginal, has a great potential to increase, waiting for the two countries to discover their mutual complementarity and to identify avenues to build their synergic relations. In the last five years, India-China trade has registered a fast growth rate. If this rate continues there will be a cumulative quantum jump over a period of time. There are increasing forces in both countries to push their mutual trade and economic collaboration to a higher level.

When India enters in a big way into the core of economic development in China's strategic schema, China will spare no effort to strike a strategic partnership with India just as she is doing with the US and Russia. Everything boils down to that. Of course, the love affair cannot be one-sided if, in her own wisdom, India decides to maintain a cool distance with her giant neighbour and past close friend and cultural cousin (in historical times) in the years to come, no shadow of Primakov's proposal will emerge on the horizon. While some may heave a sigh of relief at such a prospect, others may feel pain in the heart. It is for the right-thinking Indian mind to locate and weigh China in India's true national interest without emotion and prejudice.

OBITUARY

Louis Dumont (1911-98)

Andre Beteille

Already by the 1960s Louis Dumont had formulated an ambitious plan for a lifetime of unremitting intellectual effort. The aim was to contrast on the plane of values – rather than of social morphology or social action – societies based on holism and hierarchy with those based on individualism and equality, in short, traditional India and the west.

WHEN Louis Dumont quietly passed away at the age of 87 last November, the world of scholarship lost one of the most remarkable anthropologists of our time. Dumont had a long and productive scholarly life, and his great opus was the result as much of patient and unremitting work as of a fertile and penetrating intelligence. When I was his guest in Paris briefly in 1966, his students and younger colleagues complained that he was an exacting task-master. But the most exacting demands that he made as a scholar were on himself. He had hardly any life outside the world of scholarship.

Although he had earlier published a monograph, *La Tarasque*, on a folk festival in France, his real apprenticeship as an anthropoligist began with his fieldwork among the Pramalai Kallar of Tamil Nadu in 1949-50. The result of the fieldwork was published in a detailed monograph, one of the richest of its kind, in French in 1957. An English translation of it had been commissioned by the University of California Press in the early 1960s, and I asked him in 1966 when it would be available in print He shook his head ruefully, saying that the translation was full of defects, some of which he patiently pointed out to me. In the event the project was abandoned, and his readers in English had to wait for another 20 years for the publication by Oxford University Press in Delhi of *A South Indian Subcaste*. This was a pity because by then his reputation as a theoretician had diverted attention away from his earlier empirical work.

Dumont's reputation as a theoretician was established with the publication of his magisterial work on caste, *Homo hierarchicus*, in French in 1966 and in an English translation in 1970. The ground for the scholarly reception of *Homo hierarchicus* had already been prepared. He had started in 1957, in association with David Pocock who had been his pupil at Oxford, the publication of the influential journal, *Contributions to Indian Sociology*. For nine years he used the pages of the journal to expound patiently and systematically, through reviews, commentaries and original articles, his distinctive approach to the study of Indian society. He had also given a preview of his larger plan in a short work published in 1964 with the title of *La civilisation indienne et nous*.

Through the 1950s and 1960s, Dumont explained methodically and tirelessly that the study of Indian society had important lessons to offer to students of European and other societies. As its subtitle indicated, *La civilisation indienne et nous* was offered as an essay in comparative sociology. He argued that the point of the comparison between India and Europe was not that they were similar but that they were different. He was criticised by many, including myself, for stressing the difference too much, but he always maintained that it was the difference and not the similarity that made the comparison intellectually stimulating.

When Dumont began his scholarly apprenticeship, anthropologists were engaged mainly in the study of simple, small-scale societies. The anthropological study of complex civilisations had barely begun. His own work from the 1960s onward made a substantial contribution to its development. He argued consistently that the real understanding of Indian society lay at the confluence of ethnography and Indology. Detailed ethnographic investigations of tribal and peasant communities were indispensable, but those investigations would lack depth unless they were informed by an understanding of the design of Indian civilisation as revealed by a study of the classical texts.

Already by the 1960s Dumont had formulated an ambitious plan for himself. It was a plan for a lifetime of unremitting intellectual effort. The aim was to contrast on the plane of values – rather than of social morphology or social action – societies based on holism and hierarchy with those based on individualism and equality, in short, traditional India and the west. *Homo hierarchicus*, published in 1966 was followed by *Homo æqualis* in 1977; an English translation of the latter, which appeared simultaneously, was entitled *From Mandeville to Marx*. As I have already indicated, Dumont maintained that the insights he gained from the study of India enriched and deepened his understanding of his own society.

The 1970s saw a gradual but definite shift of Dumont's interest away from India to Europe. In 1966 he not only published his last major work on India but also retired from the editorship of *Contributions to Indian Sociology*. *Homo æqualis* was followed in 1983 by *Essais sur l'individualisme*. The last book, published in 1994, was also a collection of papers with the title of *L'Ideologie allemande*, the same as that of the famous work by Marx and Engels. There was no doubt a conscious irony in the choice of title for, although he had read Marx closely, Dumont was no Marxist.

While he benefited much from a brief period of service at Oxford, where he succeeded M N Srinivas as Lecturer in Indian Sociology, Dumont was distinctively French in his intellectual style no less than in his intellectual concerns. There

are obvious parallels with the work of Levi-Strauss to whom he dedicated an early work on the Kallar, and they had both been pupils of Marcel Mauss at the College de France. But Dumont's own intellectual project owed a great deal also to the inspiration of Alexis de Tocqueville. For, as I have pointed out elsewhere, the contrast between *Homo hierarchicus* and *Homo æqualis* resonates with echoes of the 19th-century master's contrast between aristocratic and democratic societies.

It will be disingenuous for me to pretend in an Obituary that I agree with all the conclusions reached by Dumont in his work, for I have expressed many disagreements with it in print in the course of the last 30 years. But this much can and must be said, that I learnt more from my disagreement with Dumont than from my agreement with many other scholars of lesser intellectual vitality; and this is surely true of countless others.

Dumont's work – and even more his life – has been an example for me in more than one way. When he entered the study of Indian society, many other anthropologists from overseas also began their work on India. Those others, particularly the ones from the US, worked with much larger resources, both of funds and of manpower. Dumont's resources in those respects were paltry as I learnt when I went to lecture at his centre in 1966. He had only a couple of students, a secretary who also became his student, and a small library-cum-seminar room which had to be looked up when the secretary went out for lunch. But even though he worked on a shoestring and virtually single-handed, what he produced has surpassed in its intellectual influence the combined work of all the American anthropologists with their manifold resources. In India, where large funding for research is simply not available, or available only at some cost to the researcher's autonomy and integrity, anthropologists and sociologists have much to learn from Dumont's example.

When Dumont began publishing his works in the 1950s, India occupied a minor place in the researches of European anthropologists. British anthropology, which had then a strong international presence, was dominated by Africanists who allowed the Indianists only a small voice in the profession. This changed in the succeeding decades. Dumont's work could not be ignored by even the mandarins of British anthropology, and it is largely due to the impact of that work that the younger generation of British anthropologists working on India have been able to take their rightful place in the profession.

Like many others of great intellectual power who are devoted single-mindedly to their intellectual task, Dumont was often intolerant and abrasive in his manner. As a scholar, he disdained popular acclaim. But he also had a deep humility in the face of his intellectual task. He viewed the achievements of Indian civilisation not only with respect but also with humility. His work on India will stand as a monument against the bogey of orientalism created and publicised by scholars who are unable to resist the temptations of popular acclaim.

TAMIL NADU

New Caste Equations

J Jeyaranjan
Anandhi S

The new political equation emerging in Tamil Nadu is, thus, informed by two contradictory tendencies. While the dalits' alignment with the Muslims is problematising the Hindutva's agenda of co-opting the dalits as Hindus, the anti-Muslim politics of the backward caste thevars is making available a new territory for Hindu communal mobilisation. The future course of politics in Tamil Nadu may depend critically on which of these trends will assert.

SOUTHERN TAMIL NADU has witnessed yet another bout of clashes between the backward caste thevars and the dalits during the first week of October. The clashes have resulted in 11 deaths (about half of it in police firing), and large-scale looting and arson. Though this is the most recent in a series of clashes in this region between the two, the clash is qualitatively different. For the first time, the caste clashes have acquired simultaneously a communal overtone indicating the emergence of a new configuration of politics in the state.

The immediate pretext for the clash was a conference called during the first week of October by the Thevar Federation led by Shanmugaia Pandian, a known history-sheeter who is emerging as a belligerent leader of the thevars. The specific agenda of the conference was to demand the repeal of anti-untouchability act and the abolition of reservation for the dalits and the tribals. While the agenda of the conference is blatantly anti-dalit, the actual trouble started with the provocative posters and graffiti put up by the thevars which challenged the dalits to an armed confrontation. Depictions of bleeding dalits at the hands of knife- and bomb-wielding thevars pointed to the intention of the conference. The protest against these posters and graffiti by the dalits led to clashes between the two castes in Thirupullani. In the police firing that followed two dalits were killed. The events at Thirupullani had a cascading effect and the dalits resorted to 'road roko' in many parts of the district. Vehicular traffic was considerably disrupted and the thevars who were on their way to the conference were detained and attacked by the dalits.

While the events so far resemble most caste clashes in this region, the counter-attack by the thevars had a new and important dimension. They targeted the Muslims along with the dalits. Specifically, commercial establishments of the Muslims were either looted or torched by the marauding thevars, who got their logistic support in the form of food, liquor and transportation from the thevar bigwigs belonging, it would appear, to the AIADMK. In all, 183 shops were either looted or gutted, and Ramanathapuram town alone 85 shops bore the brunt of such attack. The Ramanathapuram District Chamber of Commerce estimated the financial loss at over Rs 1 crore. The pattern of looting and attack on Muslim shops has a close resemblance to the Coimbatore riots last year that was led by the Hindu communal outfits such as the Hindu Munnani and Hindu Makkal Katchi. Tellingly, the posters of the Thevar Federation carried the symbols of 'Om' and the lotus.

In this context, it is important to note that a month prior to the thevar conference in Ramanathapuram, the dalits represented by the Pudiya Tamilagam (PT) organised a conference against untouchability in the same town. Members of the Tamilnadu Muslim Munnetra Kazhagam (TMMK), a new party which is growing in popularity among the Muslims rivalling the mainstream and rather inactive Muslim League, took an active part in the conference symbolising the newly-emerging solidarity among the dalits and the Muslims in the state. While the PT and the TMMK have jointly campaigned against the notorious Prevention of Terrorist

Activities Bill, the PT continues to take up the issues of minorities such as the rape of nuns in Madhya Pradesh.

Though this alliance between the dalits and the Muslims is not on a firm footing yet and in wrought with difficulties, the BJP and the Hindu Munnani demanded a ban on the PT conference, fearing the consolidation of such an alliance. After all, conversion to Islam by the dalits has a long history in Ramanathapuram district. During the 1930s, a large number of dalits from this area chose Islam as their path to emancipation from their low caste status within Hinduism. Meenakshipuram conversion of the 1980s was the best known instance. Such conversions continue till today.

Alongside this alliance between the dalits and the Muslims, one of the main areas of struggle by PT is to gain for the dalits access to ritual space in Hindu festivals which has so far been denied to them. A recent instance of this is the chariot festival at Kandanthevi where the dalits have demanded the right to draw the chariot for some distance along its course as do the hevars. Though there was a court order upholding the dalit's right to do so, the government, instead of confronting the thevars cancelled the festival itself. Likewise, a demand by the dalits during the Shanbagavalli Amman Temple festival at Kovilpatti led to violent clashes earlier. The politics of the PT, while challenging the Hindu exclusivity of the upper and backward castes, is questioning the location of the dalits within Hinduism.

It would be misleading to view the Thevar Federation's attack on the Muslims, along with the dalits, in the recent clashes at Ramanathapuram as only a response to the politics of the PT. The thevar mobilisation has for long been overlaid with a latent Hindu communalism which is now surfacing. The central icon of thevar mobilisation is the late Muthuramalinga Thevar, a Congressman who became the founder leader of the Forward Bloc in Tamil Nadu. If Muthuramalinga Thevar is often presented as a nationalist who combined patriotism and spiritualism in equal measure in his politics, his spiritualism was distinctly Hindu. While it had all the trappings of folk spirituality of backward castes, it never partook in a critique of brahminism. Instead, Thevar's politics had an anti-Muslim edge. In the 1930s, he was responsible for inciting the Hindus against the Muslims in Abiramam village which led to violence against the Muslims who were prevented from cultivating their lands. The statues of Muthuramalinga Thevar which dot the southern landscape of Tamil Nadu are suffused with this Hinduness; his followers go in pilgrimage to his memorial at Pasumpon village which has been converted into a place of worship and where he is also deified. The pilgrimage is often preceded by a month-long ritual fasting. Thevars also dedicate hens and sheeps to the Muthuramalinga Thevar memorial as if it is yet another Hindu temple.

This process of deification of Muthuramalinga Thevar was given state patronage in 1992 when the AIADMK government under J Jayalalitha decided to celebrate his death/birth anniversary which falls on 31 October, as a state function in Pasumpon village. The activities around the icon of Muthuramalinga Thevar which expanded to an unprecedented scale and acquired a new intensity following the state patronage suited well the AIADMK's politics of bringing the backward castes under the spell of Hindu communalism. In appropriating Muthuramalinga Thevar, who combined in him both a thevar caste identity and a Hindu religious identity, for her politics, Jayalalitha always insisted on and highlighted his so-called spirituality. Though the present DMK government has given up the state function at Pasumpon on Thevar's anniversary, it is a miserably insufficient intervention in reversing the new ideology of combining caste and religion set in motion by the AIADMK.

The new political equation emerging in Tamil Nadu is, thus, informed by two contradictory tendencies. While the dalits' alignment with the Muslims is problematising the Hindutva's agenda of co-opting the dalits as Hindus, the anti-Muslim politics of the backward caste thevars is making available a new territory for Hindu communal mobilisation. The future course of politics in Tamil Nadu may depend critically on which of these trends will assert.

International Trade in Emission of Greenhouse Gases

Costly Bargain for Developing Countries

Deb Kumar Bose

International trade in permits for emission of greenhouse gases as formulated in the Kyoto protocol is not to the advantage of developing countries. The pressure likely to be mounted by the developed countries on the developing countries to accept the proposals should be resisted.

CLOUD is gathering over the debate on the means of abatement of global emissions of greenhouse gas. The Third Conference of Parties (COP-3) to the Framework Convention on Climate Change was held in Kyoto in December 1997, to reach an agreement to limit greenhouse emissions by the participants. There was no unanimity among all the 160 nations participating in the conference The industrialised nations finally agreed to commit themselves to binding targets for reduction of the emission of six greenhouse gases within a specified period. The industrialised countries, signatories to the protocol listed in the Annexure-I, were required to reduce overall greenhouse gases by at least 5 per cent below the level observed in 1990, to be averaged over the period from 2008 to 2012 [Bolin 1998]. The protocol marked a significant advance on the prevailing mindset which disputed the need for positive action to address the problems of climate change.

The developing countries, the non-Annex I parties, however, did not agree to bind themselves into legally enforcible commitments as they did not have the wealth and resources to implement the measures according to the protocol. The group of 77 countries and China subsequently reiterated at the Bonn meeting of the subsidiary bodies on UNFCCC in June 1998 that there must be no new commitments, voluntary or otherwise, imposed on the developing countries. But the Annex-I parties held that the protocol will not be effective without their participation. The US have expressed unwillingness to ratify the protocol unless the developing nations were signatory to it.

The conference considered the modality for implementation of the protocol. The US suggested an ingenious approach to adopt incentive-based method of trading of emission between nations with greenhouse gas emission at different levels. The US maintained that reliance on free market mechanism for emission trading would be the cheapest way to meet the targets. A different view was expressed by a number of participants who advocated imposition of mandatory measures such as energy taxes to restrain the level of emission. Eventually, the proposal for trading of emission was agreed to by the industrialised nations [Jacoby et al 1998].

In emission trading system, if any country could reduce her emission discharge level below the target assigned then the difference could be converted into tradeable permit and sold to another country which might need it to meet the deficit in meeting the targeted level of emission discharge. Under emission trading regime, the country, or even companies, can purchase less expensive emission permits from the countries that may have more permits than they need [Smith and Lambert 1998].

The conference decided to establish a 'clean development mechanism', a fund to which developed Annex-I countries can contribute financially. Developing non-Annex-I countries can benefit from financing of approved project activities which would effect reduction in emission, either by way of improved pollution abatement technologies or by extending sinks, i e, absorbents for pollutants, like afforestation projects. Annex-I countries can then use certified emission reductions from such projects to contribute to their compliance with part of their emission limitation commitment.

Emission reductions achieved through this mechanism can begin in the year 2000 to count toward compliance in the first commitment period (2008-2012). Specifics on how this mechanism will operate will be developed and clarified at the November 1998 conference of the parties.

The principle when applied to international trade, however, raises several issues which have to be addressed carefully. They have particular relevance to the developing countries. We may explain the system of trading permit with an example [Kumar et al 1998].

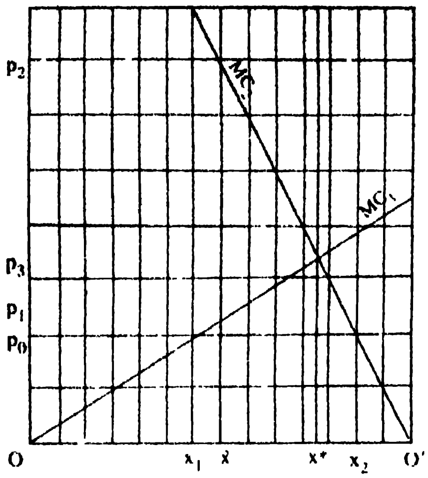
Consider two industries operating emission control technology with different cost structures. The Figure presented here shows the position for the two industries where the amount of emission under control is shown along the horizontal axis and the marginal cost for emission control measured along the vertical axis. However, for convenience of exposition, we measure the volume of emission abated along the x-axis from opposite directions for the two industries. Units of emission controlled by industry 1 is measured from left to rightwards and conversely for industry 2.

Industry 1 having more efficient technology, slope of the marginal cost curve MC_1 is always lower than MC_2 for industry 2. If a uniform emission charge per unit volume of pollutant, P_0, is imposed on both the industries, each will control emission up to the level where their marginal costs equal the emission charge. Industry 1 will operate at the level Ox_1 and industry 2 at the level of $O'x_2$.

If, on the other hand, it is desired to introduce a condition to achieve the same level of abatement of emission on both the industries, they would be obliged to operate their activities at the same level. It is apparent that the cost of operation of pollution control will now be different for the two industries. In the present instance the regulatory authority can impose the condition for reduction of emission by volume ½OO' at $\bar{x}$ for both industries. In the figure both the industries will now be operating at the level $O\bar{x}$. Marginal cost for industry 1 at Op_1 will be less than the cost Op_2 incurred by industry 2.

At this point, the possibility of trade between two parties opens up. If the objective is to reduce emission by the given volume of OO', it could be achieved more economically by re-allocating levels of emission control between the two. Since industry 1 can reduce emission at a cheaper rate than industry 2, the total cost of emission control can be reduced by trading in permits for reduction of emission between the two. Op_2 being larger than Op_1, industry 2 would be gaining if it could trade with industry 1. Industry 1 can reduce its high cost operation for meeting the target level of emission control by purchasing permits from industry 1 for

FIGURE



sharing its burden of emission control up to the level x^* where the cost of emission control is same for both of them. Any move away from the point x^* along the x-axis would be involving higher cost of emission control for industry 2. Industry 1, in its turn, could be gaining by sale of permits up to x^*, where its marginal cost meets the price offered by industry 2.

The advantage of trade of emission discharge permits between industrialistised and underdeveloped economies is not helpful to the developing economies. The quota for emission of CO_2 can be equivalent to holding international assets. It would be possible for the developing economies to convert the permit into capital for investment to accelerate economic development. The line of argument follows that for the comparative advantage in international trade.

It may be seen that the trading in emission permits absolves the developed countries from controlling their own emission by passing on the burden to the developing countries. The latter stands to benefit as long as they continue to emit gases in the air above the average level, while the developing economies are required by virtue of trading emission permits to keep their emission below the average level. Since emission of gases is a function of the level of industrial activities, the trade imposes a cap on it.

The developing countries can increase the capacity to absorb gaseous emission at global level by extending the forest areas on their land. This is the concept of sinks which absorb the greenhouse gases. The developing countries are encouraged to raise the capacity of the sinks. Earning of foreign exchange through the extension of sinks permits, it is argued, import of capital goods to raise industrial capacity of the country.

Extension of forest areas in an agrarian economy has serious policy implications for the pattern of land use. Prospects for earning of foreign exchanges through the extension of forest as suggested under Kyoto protocol would conflict with the objective of export of agricultural products. It may be observed that the afforestation in these countries is already under pressure from extension of agricultural land. With a high man-land ratio in the third world countries, large extension of forest areas is likely to affect the land use pattern adversely.

Sustainable development of forest calls for an active involvement of poor inhabitants in the fringe areas. The villagers in the forest areas collect wood from the trees to sell them in the market to augment their meagre income. It is necessary to create opportunities for them to earn additional income to keep them away from destroying the forest. Foreign exchanges earned from extension of forests under Kyoto protocol have little prospect of reaching the inhabitants in the forest areas.

International trade in permits for emission of greenhosue gases as formulated in the Kyoto protocol does not work out to the advantage of the developing countries. One should be wary of the pressure that is likely to be mounted by the developed countries on the developing countries to accept the proposals for tradeable permits in emission of greenhouse gas.

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Student Loans as the Answer to Lack of Resources for Higher Education

Jandhyala B G Tilak

Student loan programmes, as the answer to the problem of lack of public funds for higher education, are based on a questionable philosophy and unrealistic assumptions and are being launched in many developing countries with exaggerated expectations.

IN view of the continuing and rather deepening financial crisis in higher education in many developing countries, many governments plan to rely upon student loan programmes. Student loans are also viewed as an effective antidote to the regressive effects of the 'necessary evil' of steep increases in student fees. Countries which do not have student loan programmes have begun introducing it; and countries that already have it are revitalising it. As a result, very few countries are left where such programmes do not exist. But the student loan programme is based on an inherently dangerous philosophy and unrealistic assumptions and is being launched with exaggerated expectations.

The major expectations of governments with regard to student loan programmes are: (a) huge funds can be mobilised in a short time, with the repayments of loans by the graduates, (b) governments can do away with budgetary allocations for higher education and eventually withdraw from financing higher education and (c) higher education can be made self-financing with the revolving funds.

The student loan programmes are also based on several unrealistic assumptions: (a) demand for higher education will not get adversely affected; (b) poor will have enough access to loans and thereby to higher education; (c) loan amounts can be fully recovered in a reasonable period; and most importantly (d) well developed education credit markets exist in the developing countries. Further, it is also implicitly assumed that strong links exist between education and employment in the labour markets in the developing countries.

The concept of student loans has a strong appeal. (a) Student loans are regarded as 'equitable' as they appear to hold out the promise to the student that 'you can borrow money when you cannot pay for higher education on your own and repay when you can'. That is, access to higher education is not restricted by the inability to pay. (b) Student loans are considered an 'efficient' mechanism of mobilisation of resources, as they have a huge potential of generating the badly needed financial resources from the 'direct beneficiaries' of higher education. (c) Governments in developing countries can save huge public expenditure on higher education and reallocate it in favour of primary education. Other arguments are also made in this context, which are also generally made in case of private financing, such as (d) student loans not only increase access to higher education but also, more importantly, reduce regressive distribution of public resources; (e) they prevent wasteful expenditures as only the needy will take loans; and (f) student loans improve internal efficiency as students with loans would be 'diligent' and more serious about their studies.

The experiences of many developing and developed countries in the past has shown that these are elusive gains. The experience has also shown that there are serious weaknesses associated with the student loans. (a) The experience of countries with regard to recovery of loans is very poor. Several studies of the World Bank and others have shown that the highest rate of recovery was 67 per cent in Barbados, but in many countries it was below 40 per cent, and in some countries the rate of recovery was in fact negative as the real rates of interest were low and even negative. It was estimated that it would take 14 years to recover 50 per cent of the loan amounts in advanced countries such as UK. Cost of administration of loans is very high, if not prohibitive, in some countries. It was also found that launching of student loan programmes in developing countries require huge initial funds (e g, an estimated Rs 3,000 crore in India for higher technical education). Access to loans is guided more by the ability to repay (measured in terms of mortgages, security and collateral arrangements for repayment) than either by educational merit or by economic need of the students. As a result, the loans turn out to be highly regressive, severely restricting the access of the poor to higher education. Student loans could also be a deterrent to women's access to higher education. Huge loan burdens may not necessarily make students more diligent and serious and may in fact contribute to growth in some avoidable social problems including mental stress and suicides. Finally, the psychological factors associated with student loans cannot be ignored. The risk and uncertainty associated with higher education would make people psychologically reluctant to take loans for higher education.

Apart from the practical gains and losses – wherein the latter seem to outweigh the former – the concept of student loans is based on a dangerous philosophy. It is based on the principle that 'he (she) who benefits from higher education must pay'. The principle is based on a very narrow view of the 'beneficiaries' of higher education. It is not only the students, but also their families, the employers, the government, and the society at large who benefit from higher education. The 'externalities' associated with higher education, including 'dynamic' externalities, are acknowledged to be huge.

While private financing of higher education shifts the responsibility from the government and student fees shift the responsibility to households, student loans shift the responsibility entirely to individuals – from parents to children – which might in the long run weaken family bonds. Generally the present generation makes investments for the benefit of future generations. The philosophy of student loans is: let future generations invest now for their own future. The present generation need not take any responsibility of the future.

In short, the philosophy of student loans does not recognise the 'social', 'public' (or quasi-public) and 'merit good' nature of higher education. It treats higher education like any private good and education financing and, say, car financing are treated in the same way. That higher education is an indispensable intellectual social investment is no more regarded valid.

The concept of student loans does not also recognise the uncertainty of the relationship between higher education and jobs. It is wrong to assume that the link between higher education and occupations is either perfect or even strong.

To conclude, the concept of student loans for higher education has inherent weaknesses, as it does not recognise the basic character of higher education, its philosophy is dangerous for society, the gains claimed are elusive, the assumptions behind it unrealistic and, empirically, it has not proved to be a feasible solution to the problem of inadequate resources for higher education nor an antidote to the regressive effects of increases in fees. It may indeed be a deterrent to the growth of higher education.

[Based on the author's presentation at the World Conference on Higher Education, Paris, October 1998.]

'Terror Bombing', Starvation and Mechanical Force

US Prescription for Good Governance

S M Menon

The lessons of the eight years that have passed since the Gulf War are that American designs on Iraq, if they do not collapse at the moment of conception, will, at their moment of fruition, only engulf the entire region in a phase of violent instability. Since the well-being of Israel is a fixed and immutable basis of US policy in the region, the continuing denial of Iraq's sovereignty is a necessary component.

'TERROR BOMBING' is a phrase that was introduced into the vocabulary of warfare by Air Marshal Sir Arthur Harris - a terminological innovation for which the chief of Bombing Command in the Royal Air Force during the second world war is justly famous. Not one to rest content with verbal creativity, Harris endowed the concept with body and substance through a series of destructive incendiary air raids on civilian populations in Germany, culminating in the destruction of Dresden. It was an example that the US emulated with great success in Japan, until closing out the argument in its own way, at Hiroshima and Nagasaki.

Harris had learnt his craft on the training grounds of Britain's colonial possessions. As a young squadron leader in the RAF, he provided a memorable description of an air campaign in Iraq in 1924: "The Arab and Kurd... now know what real bombing means in casualties and damage; they now know that within 45 minutes a full-sized village (*vide* attached photos) can be practically wiped out and a third of its inhabitants killed or injured by four or five machines." To maximise the salutary yield of aerial bombing, said the man who was known in later life as 'Bomber' Harris, it was essential that casualties should be of sufficient scale to produce "a real as opposed to a purely moral effect".

A colleague of Harris in the Iraq operations of the 1920s had a rather more benign account of his experiences: "Air control is a marvellous means of bringing these wild mountain tribes to heel. It is swift, economic and humane, as we always drop warning messages some hours before we start to 'lay eggs' on their villages, so that they can clear out... An eastern mind forgets quickly, and if he is not punished for his misdeeds straight away, he has forgotten all about them, and feels his punishment is not merited if delayed."

The ways of imperialism may have changed over the years, though in their overt and tacit rationalisation, the recent air raids on Iraq show that the more things change, the more they remain the same. By modern canons of political correctness, which even the leaders of the imperial nations have to abide by, it is simply impermissible to stigmatise an entire people in the manner of the air power enthusiasts of the 1920s. The substitute rationale is the demonisation of an individual – first it was Gamal Abdel Nasser of Egypt and then Yasser Arafat of Palestine. Towards the latter part of his career as the embodiment of theological evil, and prior to his domestication by the west, Arafat had to share the limelight with Muammar al-Gadaffi of Libya. And just as Gadaffi was subdued towards the late-1980s, Saddam Hussein of Iraq presented himself to the west as little less than the devil incarnate.

During the war hysteria of November 1997, which was the prelude to the attacks just over a year after, Edward Said, the distinguished Palestinian scholar and political analyst, made an observation that would appear commonplace to a sensitive audience: "a morbid, obsessional fear and hatred of the Arabs has been a constant theme in US foreign policy since World War II." This, in Said's view, fuses with another uniquely American sensibility in determining policy towards the west Asian region: an obsessive morality and a 'puritanical zeal' which decrees "the sternest possible attitude towards anyone deemed to be an unregenerate sinner".

These generalisations are particularly appropriate in the context of the recent air strikes. To recapitulate some of the rhetoric emerging from Washington and London during the recent air strikes, Saddam Hussein had proven himself "a serial breaker of promises", "a threat to his people, the region and the world", and "an enemy of civilisation". The only language he understood was "the language of force" applied in a "devastating and sustained" manner.

The didactic qualities of air power are of course an old theme in imperialism's civilising mission. The pontiff of modern American conservatism, columnist George F Will, put the point well as the first bombs began falling on Baghdad during the Gulf War of 1991. More than a punitive purpose, said Will, the bombs embodied an educational mission, which invited the Arab people to participate in the potential rewards of a civilisation that was capable of such awesome technological prowess. Iraq has now suffered a second visitation of that technological prowess. But the underlying sensibilities were perhaps best expressed by the coarsened American sailor who daubed a 'Happy Ramadan' message on the side of a cruise missile just as it was loaded onto a bomber aircraft. It was a gesture that revealed all the hollowness of official protestations from the US, that the bombing of an Arab nation was being carried out in a manner that was 'sensitive to Islam'.

Consistently, official pronouncements on Iraq in the US have ranked high on moral posturing, though not on subtlety or finesse. From literally a few days of UN Security Council resolution 661, which laid out the terms of the ceasefire in the Gulf, American officials have brazenly put forward their own agenda - to ensure the removal of the Saddam Hussein regime. But the UN would not call for the collective self-effacement of the ruling clique in an autonomous nation – even if it was a nation defeated in the modern world's only 'holy war', which united all permanent members of the Security Council in common cause. The US has hence utilised every ambiguity of phraseology and leveraged its own position as the arbiter of global economic well-being, to introduce fresh conditionalities at every stage into the ceasefire resolution.

A flavour of this American stratagem was conveyed by US secretary of state Madeleine Albright in a lecture at Georgetown University in March 1997. Albright was at pains to affirm that American policy towards Iraq was part of a "broad commitment to protect the security and territory of friends and allies in the Gulf". From the beginning of Operation Desert Storm until the present, said Albright, American policy towards Iraq had been "consistent, principled and grounded in a realistic and hard-won understanding of the nature of the Iraqi regime". And as if these virtues had not been enough, it had also been bolstered by "bipartisan support at home, and general approval in the region". Albright learnt the hard way, while travelling the circuit of Arab capitals in November 1997, that her presumptions were grossly misplaced. There was little approval in the Arab world for the

American policy line towards Iraq, which had long since gone beyond rational calculation into the realm of theological vindictiveness. But that realisation was still far away as Albright unburdened herself of opinions at Georgetown University. An American audience poses few inconvenient questions, which made it easy for Albright to stitch together a perfectly bizarre logical concatenation.

It was far from clear, said she, that an Iraq which complied with all the Security Council demands on weapons of mass destruction would merit the lifting of the punishing regime of trade sanctions it had suffered since 1990. Before these were to be considered, said the American secretary of state, Iraq needed to "prove its peaceful intentions", which it could only do by "complying with all of the Security Council resolutions to which it is subject". But was it really "possible to conceive of such a government under Saddam Hussein"? An evaluation of Iraqi conduct revealed to Albright that "Saddam Hussein's intentions will never be peaceful". Clearly, the ceasefire resolution, which was objectively, even if unreasonably, phrased, has been transformed into an instrument for the US's own unilateral agenda in Iraq and the region. And it is logical in the context of stated American policy, to read the recent airstrikes – carried out without a reference to the UN, on the basis of an extremely specious report from UN weapons inspector Richard Butler – as an element of broader strategy, rather than merely as punitive forays.

Stirring at the basis of the regime of 'air control' is the notion that explosive force applied from the air can influence political events on the ground. Various official spokesmen made it apparent during the recent airstrikes, that their ultimate aim was to weaken Saddam Hussein's key constituencies – such as the Republican Guard military units – and if possible, to goad them into a decisive coup attempt. This resurrects a military doctrine that was applied in all its variants in the Vietnam operations, only to fail every test of military efficacy. One of the principles that was applied was that of 'interdiction' bombing to choke off the corridors of guerrilla operation in Vietnam. The large number of civilian casualties that resulted only made the US more permissive as far as 'saturation bombing' was concerned. And then, even if the base inhumanity of the carpet bombing in Vietnam were overlooked, the results in purely military terms were dismal. In 1967, US secretary of defence Robert McNamara summed up the lessons learnt from the application of the various bombing doctrines: "As to breaking their will, I have seen no evidence in any of the many intelligence reports that would lead me to believe that a less selective bombing campaign would change the resolve of the North Vietnamese leaders or deprive them of the support of the North Vietnamese people."

Sir Robert Thompson, a veteran of Britain's colonial wars of the 1950s, developed upon this assessment. The single most important feature of guerrilla warfare in a predominantly rural setting, he pronounced, "is its immunity to the direct application of mechanical and conventional power". This was a chastening appraisal, but it only provoked the political theorist Samuel Huntington to add what he thought was an important qualification: "If 'the direct application of mechanical and conventional' power takes place on such a massive scale as to produce a massive migration from countryside to city, the basic assumptions underlying the doctrine of revolutionary war no longer

operate. The Maoist-inspired rural revolution is undercut by the American-sponsored urban revolution."

This was the doctrine and the sensibility that underwrote the US's massive campaign of chemical warfare in Vietnam – perhaps the greatest unaccounted war crime of the post-second world war period. The lethal toxin Agent Orange was dumped on Vietnam in massive quantities, to strip its jungles of all foliage. In the fevered imagination of American technological jingoism, this would expose the population that was otherwise sheltered in the jungles to the application of "mechanical and conventional power". On the ground, "an accelerated pacification programme" was inaugurated as a complementary measure. Entire villages were cleared and their residents herded into urban centres under American supervision. "Forced-draft urbanisation and modernisation", said Huntington in the exultation of discovery, would rapidly bring the country "out of the phase in which a rural revolutionary movement can hope to generate sufficient strength to come to power".

The US went through a prolonged process of learning in Vietnam. By those standards, the mission of air power in Iraq is relatively uncomplicated. Unlike Vietnam then, Iraq is a highly urbanised and industrialised society, whose civilian infrastructure is vulnerable to the application of "mechanical and conventional power" in a manner that rural hamlets are not. The 1991 bombing campaigns by the US and its allies did a comprehensive job of demolishing the country's infrastructure. But the political events that have followed this application of mechanical power have not conformed to American expectations. The regime remains in place, still able to summon up the residual defiance to beat back Richard Butler's crude efforts to penetrate its innermost recesses, still able to cock a snook at the western powers by challenging and engaging the aircraft patrolling the 'aerial exclusion zone' illegitimately imposed towards the northern and southern reaches of Iraq.

The US is the long-term loser from this uneasy stalemate. Popular opinion in the Arab world is now alienated, and friendly regimes have been undermined by a tide of resentment at the continuing suffering in Iraq. Unsurprisingly, assassination has presented itself to the fevered American imagination as a quick and painless way out of the limbo – an aspiration that the American media gave free vent to during the crisis over the UN weapons inspections in November 1997. The following sampling of media comments, liberally paraphrased from the magazine *Mother Jones*, conveys a sense of the pathological blood-lust that Iraq seems to excite in US policy circles:

> *Newsweek*, on November 17 ran a story headlined 'Take him down'. It left little room for ambiguity – either about the target of this exhortation or about the inexorable direction of the force of gravity – the headline was run right next to a photograph of Hussein and a downward-plunging arrow.
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> Thomas Friedman, foreign affairs columnist for the *New York Times* (November 6), invoked a divine purpose for the American military's technological prowess: "Saddam Hussein is the reason God created cruise missiles ...So if and when Saddam pushes beyond the brink, and we get that one good shot, let's make sure it's a head shot."
>
> George Stephanopolous, a former intimate of the American president and now a TV news analyst, argued on ABC's 'This Week' (November 9): 'This is probably one of those rare cases where assassination is the more moral course...we should kill him' Sam Donaldson, co-host of 'This Week' (November 9), chose to enter a caveat: it was not morality alone that was invoked in the case at hand, since international legality could provide the rationalisation for an American mission of assassination. We should kill Saddam, he said, but 'under cover of law'. The act would pass the scrutiny of international legality, and the US could 'do business with his successor'. In response, Bill Kristol, ABC news analyst, commented that the proposition sounded 'good'. And this feast of concord was joyously received by Cokie Roberts, co-host of 'This Week', and endorsed for appropriate further action: "Well, now that we've come out for murder on this broadcast, let us move on to fast-track..."
>
> Other forums showed an awareness of the logistical difficulties involved, though not for the legal and ethical issues. Here is Jonathan Alter in *Newsweek*, November 17: "It won't be easy to take him out. ...But we need to try, because the only language Saddam has ever understood is force." A fortnight later, *Newsweek* chose to dignify the theme with a strongly affirmative headline to its editorial column: "Why We Should Kill Saddam".

Whatever elements of sobriety there may have been in the midst of this babble only suggested that a relapse into insanity would be a welcome prospect. An illustration was Laurence Eagleburger, former American secretary of state, who appeared on the same show in which Stephanapolous made his impassioned plea for a surgical assassination. Eagleburger took the cool and detached view – he upbraided his young and impetuous colleague for the advocacy of political assassination as an instrument of foreign policy and urged that the crisis arising from the stalled arms inspections in Iraq should be dealt with through a massive show of air power in Iraq, indeed, nothing less than a reprise of the brutal aerial bombing campaign that the US unleashed during the Gulf War. He was convinced that a second visitation of American air power would ensure Iraqi compliance with even the most irksome conditions imposed by UN weapons inspectors. And in the final reckoning, the destruction wrought from the skies would, he said, provide an inducement for disgruntled elements within the military to get rid of Saddam Hussein and bring in a leadership more amenable to western tutelage.

That assault has now taken place, though one year later than the US wanted. Its immediate effect is that the UN disarmament mission in Iraq – pursued with maniac vigour and little regard for truth by the Australian diplomat Richard Butler – is dead. The regime of President Saddam Hussein remains in place, its legitimacy underwritten by the efficacy with which it has managed a situation of acute domestic stress and international isolation. In a nation enervated by sanctions, the regime seemed a push-over for any application of military force. Yet, two identifiable American efforts to overthrow Saddam Hussein have failed. The Iraqi National Congress – a creation of British and American intelligence – sought to launch a major military offensive from the northern region. This initiative collapsed in disunity and disarray in 1996. Shortly afterwards, the Iraqi National Accord, which sought to foment a military coup from the security of the Jordanian capital of Amman, suffered ignominous rout at the hands of the Iraqi intelligence services.

The new intrigues that the US administration has dreamt up in league with its worshipping acolytes in Britain, remain unknown as of now. Military power on an awesome scale has been deployed in the region. And it is also germane, that the US has substantially raised its 1999 military budget in direct response to the unresolved dilemmas of west Asia. Brute force, the world is reminded, remains an option when unsubtle intrigue and coercion by starvation fails. But if anything, the lessons of the eight years that have passed since the Gulf War are that American designs on Iraq, if they do not collapse at the moment of their conception, will at their moment of fruition, only engulf the entire region in a phase of violent instability. And since the well-being of Israel is the fixed and immutable basis of US policy in the region, few alternatives seem available, but a continuing denial of Iraq's sovereignty and the bottling up of regional tensions through the naked display of armed power.

An Agenda for Gender Politics

Wandana Sonalkar

Patriarchy in India starts with the control of women or men in the family but works in such a way as to perpetuate caste hierarchies; and the preservation of caste is the basis for the functioning of this patriarchy. Will the passage of the Women's Reservation Bill as it is, as a first measure, without a wide-ranging discussion of the underlying caste issues really empower women in the struggle against patriarchy in the social and political specificity of present-day India?

TWO issues of gender politics which are currently being debated are, firstly, reservations for women in parliament and state legislatures, and secondly, the ongoing debate over the Uniform Civil Code. Feminists have taken up a nearly unanimous position supporting the proposed 81st Amendment to the Constitution, which seeks to reserve seats for women in the said bodies. On the second issue also, after a considerable amount of controversy and disagreement, a kind of consensus has been reached on giving priority to fighting for women's rights within the framework of existing personal laws, rather than pushing for a Uniform Civil Code at present.

Both the consensus in one case and the unanimity in the other are, I feel, very problematic: they have become possible only because the scope of the debate has been limited in two ways. Firstly, the perception of the history of the issues being debated is usually narrow, with the assumption that feminist politics in India really began after 1975, events predating this are mentioned only cursorily. This leads us to the other question of who are the feminists, whom are we speaking for and by what authority? In general, this means that in arguing for a greater concern with feminist issues in contemporary politics (and to argue thus is of course an urgent need), the broader political context within which we operate is often forgotten. This paper tries to explore some of the questions that should be addressed in this regard.

Both the specific issues mentioned above: reservations for women, and the Uniform Civil Code, are concerned with the very nature of Indian democracy, and its functioning in today's context. It is significant that the women's movement is today debating these issues, as it means that we have reached a stage of maturity which makes such an intervention in the broader democratic process both possible and necessary. But then we must remember that our history is not only the history of the post-1975 women's movement in India. One important series of events in that history is Ambedkar's motion in parliament for a Hindu Code Bill (HCB) when he was law minister, the defeat of the motion and his subsequent resignation. Ambedkar's insistence on a codification of Hindu personal laws has a double significance which is relevant to the current controversies. One, the Constitution which outlined a concept of citizenship and basic human rights did not touch on the religious life of the majority of Indians, while religion (that is, for the majority, Hinduism) was nevertheless a site for the preservation and reproduction of inequalities among Indian citizens. So, side by side with the Constitution which deals with the political and economic rights of citizens, a specific codification of Hindu personal laws which targeted the inequalities in the religious practice of citizens was essential. Secondly, such a codification should, in Ambedkar's opinion, precede the movement towards a 'secular', Uniform Civil Code. Later on, some of the laws contained in the proposed Bill were passed as separate acts.

Since some of the opponents of the proposed 81st constitutional amendment have brought up the issue of reservations for non-upper caste women within the reservations for women in parliament and state legislatures, the question of caste and gender as aspects of the citizen-subject has been brought to the fore. Most of the feminists arguing for reservations have attacked or dismissed this argument (epitomised in the statements of Sharad Yadav) as patriarchal and motivated – and they are not entirely wrong in this, if one looks at the records of the parliamentary debates that took place during 1997 after prime minister I K Gujral put the issue of reservations for women on the agenda of the Common Minimum Programme.[1] But in fact the point raised here touches on the fundamental question of the constitution of the citizen-subject, and here the considerations that weighed with Ambedkar in his moving the Hindu Code Bill are still relevant, even if the political context is different now; because they have something to do with the essential nature of Indian society. If we look at Ambedkar's concerns in this light, we can take issue with the arguments put forward by most of the feminist pro-reservationists. In the process, we may be able to reach a clearer idea of our priorities in today's political context.

Ambedkar and Hindu Code Bill

Ambedkar has gone on record as saying that he considered his work on the Hindu Code Bill to be as important as his participation in the formulation of the Indian Constitution. The Constitution views the citizen as a secular subject, and the rights of citizenship are restricted to the spheres of public politics and economic activity. But he insisted that it was not sufficient to recognise the right to political and economic equality in a 'secular' space defined in the Constitution, as long as inequalities among citizens, especially and particularly on the basis of caste, continued to be entrenched in the religious life of the Hindu majority. We must remember that at this time Ambedkar had not yet moved to the point of embracing Buddhism, although he had considered this option. He saw the Hindu Code Bill as a basis for the reform of Hindu society. Although he certainly did not believe that this reform could be carried out through legislative fiat alone, he sought to lay down some minimum principles within the legislative framework of personal laws. For this purpose he made a study of the Mitakshara and Dayabliaga systems of Hindu laws governing marriage, divorce and inheritance, as well as looking at the practices of smaller communities within the Hindu fold. He considered that the most progressive principles in the existing Hindu codes should be incorporated into the 'modern' Hindu Code Bill.

Ambedkar insisted on enshrining in the Hindu Code Bill some basic tenets on which there should be no compromise: the right to divorce for the woman, the outlawing of polygamy for those married under Hindu law, and the granting of some unconditional rights of inheritance for widows and daughters were among these.

He also insisted on the recognition of intercaste marriages as valid under Hindu law. Although a Special Marriage Act which contained such rights and freedoms for those wishing to enter into a civil marriage contract was already in existence before 1947, only a small minority of persons actually opted for this. Ambedkar's concern was that these minimum tenets be put into the Code for Hindu personal laws, so that women entering into marriage based on religious practice should have the benefit of these rights.

The record of the debates on the Hindu Code Bill in the Lok Sabha between 1947 when the motion was tabled, and the time of Ambedkar's resignation as law minister, shows the violence of the opposition of orthodox forces to these proposals. It is interesting to note that these forces articulated their reactionary positions on the question of caste as well as gender: it was of course said that giving the woman the right to divorce would destroy the traditional family, etc. In addition, Ambedkar was subjected to sarcastic attacks for trying to be a modern 'Manu'.[2] Underlying this was a reference to his caste. Although Nehru supported Ambedkar in the beginning, he gave in under pressure from the reactionary forces as general elections drew near. Among Ambedkar's supporters were some eminent women MPs. When the. . women took issue with Ambedkar over the scope of inheritance rights granted to women under the bill, his reply was that he did not see the Hindu Code Bill as a final answer to the question of women's rights: it would be the task of future political movements to extend the scope of these rights and to push for the enactment of new laws.[3]

This cursory account of some of the central aspects of Ambedkar's motion of the Hindu Code Bill and some of the reactions to it should be adequate for us to understand the relevance of that debate to the current one. What is important is that behind Ambedkar's efforts to put the bill through parliament is his vision that women are central to the fight against the caste system, that the subjugation of women is central to the functioning of the caste system, that women are, in his words, the gateway to the caste system. Thus the brahminical forces that uphold caste must take control of these gateways in order to perpetuate the system of caste hierarchy and caste oppression. The need to enact a juridical code that provides for emancipation of women in the areas of marriage, divorce and inheritance is essential because side by side with a Constitution giving political and economic rights to citizens, there must be a progressive Code which allows for revolutionary change in Hindu society, in religious practice. To put it differently, he saw the need for a reform of Hindu civil society – an essential characteristic of which is that it is divided on the basis of caste – side by side with a Constitution that established a 'modern' and 'secular' political society. And he saw the emancipation of women as central to that reform.

The point here is not whether the adoption of the Hindu Code Bill as proposed by Ambedkar would have been sufficient to bring about the emancipation of women. But we may ask why the bill was opposed with such virulence when he moved it, whereas most of the laws contained in it were, just a few years later, passed without any such bitter opposition? Could it be that the proposal of a reformist Hindu Code was seen as a direct challenge to the patriarchal and caste-based Hindu order, while separate laws were not seen as such a challenge? (Of course, even where such laws have been adopted, their violation is the norm: take, for example, the issue of intercaste marriage.[4]) There would have been a different juridical history if such a Code had been adopted. Lawyers fighting cases for women against a patriarchal Hindu social order would have been able to appeal to certain progressive principles on which the Code was based. One underlying implication of this would have been that the distinction between the public and private spheres of life would have been defined differently. That is, instead of relegating religious life to a private sphere, and allowing religion-based personal laws to govern those areas of the private that are recognised as encroaching on the public sphere – on the occasions of marriage, divorce and inheritance – there would have been a recognition that certain principles of social reform are to be applied to the private sphere as well. Let us not forget in this context one of the most powerful slogans of the early years of the contemporary feminist movement: "the personal is political".

The above paragraph is not intended as an exercise in 'what might have been'. It aims to bring out the radical nature of Ambedkar's attempt to get the Hindu Code Bill passed in parliament. That bill recognised the intrinsic link between caste and patriarchy in Indian society, and aimed to lay down a juridical basis for a future struggle against both. The granting of full adult franchise to women at the time of national independence – radical though this was in comparison to the late dates at which many European nations granted votes to women – and the inclusion of the principle of equal pay for equal work for men and women in the Directive Principles of the Constitution are inadequate from the point of view of this struggle and have indeed been shown to be inadequate by subsequent developments.

The point that Ambedkar recognised was that the caste system is perpetuated by endogamy; at one point he advocated intercaste marriage as the only programme of action that could lead to the elimination of caste. Later on, it seems that he saw the inadequacy of this line of action taken on its own; yet even today it is an act that is perceived by the forces upholding the caste system as a threat to the prevailing order and invites the severest punishment. The imposition of the rule of caste endogamy entails the control of women's sexual behaviour and in fact all aspects of their social behaviour by the patriarchal caste panchayat. The Hindu Code Bill entailed a clear declaration that the law of the panchayat would be limited in independent India, that this Code for the Hindu majority would hold precedence over patriarchal caste panchayats or undeclared caste authorities. It is no wonder that it invited such bitter opposition from the defenders of the traditional Hindu social order.

Caste and Gender in Indian Society

Caste is perpetuated through endogamy, but then it operates through a number of social and economic institutions and ensures, first and foremost, that the domination of the upper castes and the subservience of the lowest castes is preserved. Women of the lower castes remain at the bottom of the hierarchical order, they have no right to privacy or decision-making and no right of protection against sexual exploitation. This can be seen in the question put by a judge to Bhanwari Devi when she went to court against her upper caste rapists: "How far apart were your legs when the rape took place?" The practice of caste builds up what Pierre Bourdieu calls a 'doxa', a set of shared beliefs and norms within a community which condition the behaviour of its members without being openly declared. A member violating the rules of the doxa invites social sanctions of various kinds, including the most violent. But the doxa operates on an unarticulated level apart from one's consciously declared beliefs. This level is different from the Freudian concept of the unconscious which refers to the formation of the individual personality in the European context. Perhaps the concept of 'neniv' as opposed

to 'janiv' as used by Sharad Patil[2] (and borrowed by him from Buddhist philosophy) comes closer to what we need to analyse this situation. For the doxa or the neniv is social in content: in Indian society it incorporates all the aspects of caste identity, caste prejudice, hierarchy, and submission to a patriarchal order which are so much a part of the lived life of constitutionally equal Indian citizens.

Fifty years after independence and after the defeat of the Hindu Code Bill, these realities of Indian society are pushing themselves into the political arena. The result is a disruption of the consensus on the secular and democratic basis of Indian political life, which existed for some decades after 1947; the disruption makes room for the coming to power of the BJP by default, so to speak. Nivedita Menon (1997), for example, voicing what she calls her ambivalence on the question of reservations for women in parliament, says "We may need to think in terms of quotas within quotas – OBC within women's quotas, woman's quotas within all others and so on – and most certainly of how to ensure the possibility that newer groups can always present themselves to be recognised." The need for a pluralist approach is important when we are seeking to extend the scope of our democracy, as Menon implies in the quoted passage. Those who see themselves as a group seeking political representation should have the chance to do so, the openings for this should be built into our political institutions. But do 'women' really constitute such a group in reality? Don't caste groups have more claim to being marginalised categories with a social cohesiveness and common modes of being oppressed, which entitles them to seek political recognition as a group?

The issue is not just one of identity politics, a term now used without much clarity to describe the contemporary phenomenon of the political assertion of various marginalised social groups which identify themselves on the basis of caste or community (dalits, Muslims, adivasis, OBCs). Ambedkar's concern here is with the social inequalities that perpetuate themselves in spite of legislation to the contrary, in spite of the declared 'secular' politics of the major political parties - even those on the left.[3] Feminists are, or should be, familiar with this. It is the feminist movement that coined the slogan "the personal is political". Ambedkar wanted, through the HCB, to redefine the sphere of the private in a systematic way, to put progressive values into the sphere of religious practice and establish a basis for changing the exploitative social practices that, in fact, from a part of the Hindu's religious life. This could not be achieved by the stray laws that we now have banning untouchability or legitimising the right of temple entry to dalits. The HCB was an attempt to assert that the personal is political.

Politics always involves an assertion of rights and the demand for their legitimisation in social practice. These rights may appear at times insubstantial in content, but the process of assertion is a challenge to the prevailing doxa, and therefore important. In recent years we have been witnessing an upsurge of political activity on the part of oppressed social groups in India. Two examples from the recent history of Maharashtra may illustrate this point. One is the movement for the renaming of the Marathwada University in Aurangabad, Maharashtra as Dr Babasaheb Ambedkar Marathwada University, which spurred a mobilisation of dalit youth and in 1978 called forth a series of violent attacks on dalits in villages throughout Maharashtra. The other is the demand being posed by some dalit women and later taken up by the RPI under the leadership of Prakash Ambedkar, that December 25, the day on which Ambedkar publicly burned the *Manu Smriti* in 1927, be declared as Indian Women's Liberation Day. A woman activist from one of the communist parties responded to the latter demand by saying, "How long will we go on fighting on issues of identity politics? We have to address the real economic issues." The two examples cited above clearly represent challenges to the prevailing doxa: this is evidenced by the reaction of the defenders of the traditional order. Though the demands are symbolic in nature, as long as the doxa is real, the struggles to achieve them are also real.

Another example: we can recall the near-unanimity of the press in condemning the V P Singh government when it sought to put the recommendations of the Mandal Commission into practice. One would have thought that the Mandal Commission had committed the sin of creating caste divisions where none existed. While reservations in government and semi-government jobs have a definite role for members of the backward castes in creating a bit of space for upward mobility, the violent passions that appeared to agitate the anti-reservationists were surely wildly out of proportion to the actual threat to the job opportunities of upper-caste students, especially at a time when the total number of jobs in the public sector was stagnant and expected to dwindle in the future. Here too, what was being threatened was an unstated right, a part of the doxa: the right of the upper castes to dominate in the administration and in education. On the other hand, the BJP faces no such problem when it takes up the issue of women's reservations. The opposition to the bill is now taking shape around a different set of issues, with the demand for reservations for OBC women within the reservations for women in parliament.

Let us turn at this point to the arguments and the logic used by feminists to support the demand for reservations for women in parliament. Kiran Moghe, member of the CPI(M) and an active functionary of the party's women's wing in Maharashtra, says in her Marathi pamphlet quoted above, "There is definitely a difference between a *caste woman of the landlord class* and a *dalit woman agricultural labourer* (emphasis mine). But on the other hand her exploitation as a woman at the hands of men is something that cuts across all castes and classes. That is to say, the oppression suffered by a woman zamindar or a woman agricultural labourer at the hands of men (of her community) in the family or in society is one and the same: on that level their sufferings are the same. Hence the debate over whether all women are equal or not is meaningless and unnecessary (pamphlet written by Kiran Moghe published by CPI(M), Maharashtra, 1997).

There are at least two problems in this argument. One is that the categories of class and caste are conflated and the implication is that whatever difference there is between the dalit woman agricultural labourer and the caste Hindu woman from a zamindar family exists only, or 'fundamentally', because one is labourer and the other a landowner. It ignores entirely, for example, the sexual exploitation suffered by a dalit woman because of her position in the village caste hierarchy. For example, Muktabai Sarvagod (1983), in her book *Mitleli Kawade* recounts how a young widow of the (non-dalit) mali caste could live her life in her village with dignity even though she had no land and three children: she received help and moral support from members of her caste. A dalit woman in the same position would not have had this freedom.

Secondly, Moghe refers to exploitation of the woman by men of her own community, in the family and in society, as if her relations with men of other communities don't matter. This is a serious mistake in understanding the nature of oppression suffered by women of different classes, and especially castes, under a

patriarchal system. In fact Moghe betrays ignorance of the concept of patriarchy, which is linked up to the way in which power over women is articulated in the family first, and then in society at large, through the hierarchical structuring of that society. The reality is that the upper caste zamindar woman will have women and men servants to lighten her work in the home, an economically deprived woman from the middle castes will have the support of caste kin in better circumstances (see above); whereas the dalit woman has no social defence against sexual and other exploitation from upper caste men in her village. And although each of these women may live within a patriarchal family structure, that structure also serves to reproduce her position in the caste hierarchy.

We have been arguing that the nature of patriarchy in India is intimately bound up with the institution of caste, and that Ambedkar was always sensitive to this. All this has a bearing on the demand for reservations for women in parliament in the present political conjuncture. If the isue of reservations for women is seen as a demand empowering women against domination by men *per se*, this amounts to abstracting the citizen-subject both from the reality of the social space that he/she inhabits, and also from the present articulation of our democracy. If, on the other hand, we are sensitive to both these, we can easily see that the demand for quotas within quotas, and the demand that the details of these be worked out before reservations are granted to women is more than a delaying tactic being used by chauvinist men of the not-so-badly-off middle castes.

There is, therefore, an attempt by the spokespersons of the 'women's movement' (within and outside left political parties) to use this issue as a rallying point for women as a category on a national-scale. However, as Madhu Kishwar points out (In discussion with Jaya Jaitly in 'Samvad', *The Times of India*, August 15, 1998),[5] they have not been successful in mobilising the support, in any appreciable number, of the women they claim to speak for. Also, we find, during the dabates on this question, in the argument that OBC men are insincere in bringing up the issue of reservations for 'their' women, the idea that oppression of women by men of their own community is the fundamental reality of women's oppression in India, cutting across classes and castes.

I have argued above that this line of thinking stems from an essentially incorrect understanding of how patriarchy operates in Indian society. Patriarchy in India starts with the control of women by men in the family but works in such a way as to prepetuate caste hierarchies; and the preservation of caste is the basis for the functioning of this patriarchy. Will the pushing through of the bill as it is, as a first measure (as it is said), without a wide-ranging discussion of the underlying caste issues, really empower women in the struggle against patriarchy in the social and political specificity of present-day India? Or would it not be better to use this occasion as the starting point of a debate on caste, gender and the nature of political representation? Yadav had to apologise publicly for the patriarchal tone of his comments in parliament; this is a positive outcome. We are also currently witnessing a critical juncture in the dynamics of political representation, with the caste non-elite in various regions of the country attempting to find new modes of political articulation. The resulting instability in the functioning of parliamentary institutions cannot merely be dismissed or deplored as a deterioration of the political climate. The women's movement must try and engage with these realities and relate to them in the context of its past gains and its programme for the future. The debate on reservations has not till now given them much thought, but it is a welcome development that some debate on the issue of reservations within reservations has now been initiated.[6] A certain delay in the implementation of a bill providing more seats for women in parliament appears to be tolerable, if we are going to give serious attention to a long-neglected set of political issues.

If we remember the political context in which the bill emerged in the first place: the earlier (73rd and 74th) constitutional amendments which made it mandatory to reserve at least one-third of the seats for women in local elected bodies, had been introduced as a move towards decentralisation of power. This was the broader perspective within which women actually living and working in villages, towns and cities were given the opportunity to act as political representatives on the local level. Women's organisations have welcomed this as a potentially empowering provision, and have worked to give support to women elected in this set-up. The entry of women into local political bodies has at times been manipulated by the male-dominated political parties, and in some situations the elected women have been neutralised or even sexually humiliated. But this is only to be expected, since these amendments have made it possible for the first time for women from the lower strata of society, women of all castes, to participate in large numbers in a political process from which they have hitherto been excluded.

The logic of decentralisation of power does not apply to the issue of reservations for women in the national and state level elected bodies. This demand has been taken up with enthusiasm by the left political parties, or the women (who are present in a minority) within them, and later on by the 'autonomous' women's organisations. Meanwhile the 81st Amendment became the 84th Amendment (without substantial change) and the BJP declared that it would get it passed through parliament. Almost all these pro-reservationists found a ready target when male OBC politicians brought up the issue of reservations for OBC women, expressing themselves in openly patriarchal language. So we have the major argument being pressed (exemplified in Kiran Moghe above) that oppression of women by their men cuts across all castes and classes.

To sum up this stage of the argument: the demand for reservations for women in parliament, as it is being argued by feminists (who suddenly find themselves in the company of the BJP), glosses over the fact that, in India, patriarchy operates through caste, reproduces caste hierarchies, and also uses caste divisions to perpetuate itself. We are merely saying that the category 'women' does not have sufficient unity to represent itself as apolitical group cutting across class, caste and community, though this may also be true in the present conjuncture. Rather, the point being made is that the mode of oppression of women in this society is so intimately bound up with caste that both issues have to be addressed together, especially when one is talking about reservations in parliament, an issue that will affect the functioning of politics on the national level and therefore touches on the nature of the citizen-subject. If the proposed constitutional amendment is directed towards expanding the rights of citizens to emancipation from social oppression – which is presumably what it intends to do – then let us recall how Ambedkar had understood the question more than 50 years ago. The defeat of his bill at that time has unfortunately meant that the questions he raised about the nature of citizenship in India have largely been neglected since then.

Recently there has also been a demand for reservations for Muslim women; this has been spearheaded by Shahabuddin and some educated Muslim women have supported it. However, there are constitutional problems involved in granting reservations to Muslim women, which do not

arise in the case of OBC women. Some are asking the question: why reservations for Muslim women or OBC women, when Muslim men and OBC men do not have reservations? It will not do to call these another set of 'delaying tactics'. The point I am making throughout is that much wider political and constitutional questions are involved in the issue than was realised at first, and that Ambedkar was sensitive to many of them. We need to take a second look at what he was saying, not necessarily to take his word as final. In fact, some innovative alternatives have also been proposed, such as the possibility of multiple-seat constituencies: why not elect one man and one woman from every constituency? In any case, the number of members in the Lok Sabha has remained constant since independence, while the population represented by them has increased several times.[7]

Uniform Civil Code

Ambedkar's speeches and writings at the time of his moving the Hindu Code Bill also have a bearing on the debate over the Uniform Civil Code (UCC), especially among feminists. Even at that time the defenders of the brahminical Hindu social order cried against the reform of Hindu personal laws protesting that the Muslims should be forced to adopt a UCC. Ambedkar was strongly against this: he gave the highest priority to the reform and codification of Hindu personal laws which affected the majority of citizens, then, as now, Hindu fundamentalists tried to present the UCC as a necessity for the 'modernisation' of the Muslim community. But Ambedkar was very clear in saying that unless the Hindu community adopted a code that included a cohesive set of principles for reducing caste and gender-based inequalities in personal law, it had no right to insist on imposing a UCC on Muslims.

Talking about the concept of the secular state, he said: "(it) does not mean that we can abolish religion. it does not mean that we shall not *take into consideration* (my emphasis, he doesn't say 'respect') the religious sentiments of the people."[8] But, taken together with his attempt to reform and limit the scope of Hindu religious authority, his statement is quite different from what secularism has come to mean today – a neutrality of the state *vis-a-vis* religion seen as the private concern of individuals. Besides the fact that this neutrality can be compromised, this conception of secularism can support the growth of religious fundamentalism in both the majority and minority communities. Ambedkar, on the other hand, while arguing for the Hindu Code Bill in parliament, was questioning the division between public and private space which informs the Indian Constitution: it is because religious authority also has its oppressive social effects – going beyond the private sphere – very especially in relation to caste and gender, that he considered a codification of personal laws for the majority community to be essential as a supplement to the Constitution. If the Hindu Code Bill had been passed, the debate over the UCC would, 50 years later, have had a very different content.

Among feminists, there is now a broadly accepted position that, instead of working towards a UCC at present, it is tactically more important to fight for justice for women within the scope of existing laws and also of existing customary practices, where they provide more protection to women, while working for a reform of different personal laws. It is recognised that Hindu personal laws are not necessarily more progressive than Muslim laws in this respect, but "all personal laws discriminate against women".[9] Some feminist groups have attempted to formulate a 'gender-just' civil code as an ultimate goal to move towards in a longer persepctive, even while they accept the tactical position outlined above. Nivedita Menon, in the article cited above summarises the content of these attempts.

We are not interested here in the differences between various groups on this issue. The question of putting on the feminist agenda even a 'longer perspective' of working towards a set of gender-just laws, it seems to me, suffers from the same faulty vision as the approach that has been taken to the issue of women's reservations. In regard to the minority religious communities (to quote Menon again),[10] "reform within personal laws with the co-operation of community leaders is preferable to legislation by the state", in order to "negotiate the maximum possible space for women as individuals within their communities". This is a tactical position that admits, in effect, that 'the feminist movement' has not so far been able to mobilise large numbers of Muslim or Christian women within its fold. But has it really done so for the majority of Hindu women either? Does the attempt to work out a 'gender-just' civil code grapple at all with the realities of how patriarchal oppression functions in our society? It is striking that Ambedkar's position on the UCC is never cited in any of these discussions. If this attempt to work out a code is to become more than an academic exercise, it must look at the history of the women's movement from a less self-centred angle. The defeat of the Hindu Code Bill was an important event in that history whose significance we must examine, before we can work out some politically correct and 'gender-just' code. Even today, adivasi women are not covered by Hindu personal laws, which leaves them without any legal defence against certain kinds of exploitation. It would, in fact, be more relevant at the present juncture for the feminists to re-open the question of a code of personal laws for Hindus, because that would really touch on the issue of the spheres of public and private, of caste discrimination and its relationship with the patriarchal oppression of women: issues which affect women of the minority communities as well.

This brings us back to the other question posed at the beginning of this paper: who are the feminists, and by what authority do we claim to speak for the majority of Indian women? The feminist movement in India in recent times began in the 1970s. Initially an offshoot of the movement in the west, it naturally first attracted English-speaking, urban women who more likely than not were middle class and upper caste. In fact, the women's liberation movement in the west also took a long time to spread beyond the limited world of white, middle-class women with higher education. In India, however, one could argue that social barriers are even more rigid and social inequalities even more stark in relation to caste than they are in relation to race in the developed world. Indian feminists from the very start tended to, say, yes, we are oppressed by patriarchy, but our poorer sisters from the working class and the villages are much more oppressed. Some women, motivated by such perceptions, actually went out to the villages, slums, forests and mines and organised different sections of women there in struggles for their economic and other rights. There are some such feminists who now have experience of this kind of work stretching back over 25 years. Also, there were lawyers, journalists, writers and academics who took up arms 'against patriarchy on many fronts. International Women's Year in 1975 sparked off a large number of research undertakings by the government and academic institutions where women were the explicit subject of research. Some women made their academic careers in this field. And then, over the last 15 years or so, has come a new crop of NGOs doing 'professional social work with a focus on gender issues. 'Gender' has – almost – become a universally accepted part of

academic and journalistic vocabularies.

Those of us who call ourselves feminists in India also carry on struggles with the men close to us for assertion of our rights, for an extension of freedoms. These struggles are real, they have their impact, they change the environment in which the next generation of women live their lives. But in themselves these struggles do not engage with the forces of patriarchy on a social scale. Educated upper caste women are granted freedom to work and move in society with relative ease, as long as they respect the broad rules of caste and class endogamy; minor violations on their part are also accepted. But the dalit or adivasi woman in the village is still seen as not having any rights. When upper caste, educated, middle class women participate in building organisations for asserting the rights of such women, they still carry their caste identity into the 'field'; they can deal with bureaucrats, judges and the police, while a dalit woman going to these officials with the same demands is still, in the India of 1998, in real danger of being raped. When the upper caste feminists venture into the villages and slums now with the additional backing of foreign funds, their organisations may become more sustainable but is their intervention any longer radical or capable of challenging the status quo?

This is essentially a call for introspection. What we are saying is that the familiar kinds of feminist initiatives taken in such a fractured social context are often neutralised, their impact far less than what we have hoped. I have tried to show that the initiatives are themselves based on a fractured conception of what the women's movement is. I think that 'we' have to realise that this fractured social context also splits ourselves in some fundamental sense. to go beyond this split we have to engage with the social forces of caste and patriarchy in a much more explicit manner. Let's put this on our agenda.

Notes

1 See, e g, Kiran Moghe's pamphlet (in Marathi my translation) on the issue of reservations for women in parliament: "Firstly, the OBCs as a group have never until today demanded reserved seats in legislative bodies. This recommendation does not figure among the many points listed by the Mandal Commission in order to improve the situation of the OBCs in light of their many sufferings. Of course, it is possible that a certain section of society may make such a demand all of a sudden – but it is no coincidence that the demand is expressed only in the context of the Women's Reservations Bill."

2 Ambedkar saw the *Manu Smriti* as a brahminical text that embodied the subjugation of women through the caste system. According to him, Manu represents the historical downfall of women from the higher status they enjoyed in ancient India. It has been argued [e g, Lata Mani 1989] that this view of the brahminical scriptures, especially the *Manu Smriti*, as the juridical basis for the subjugation of women is itself the product of a discourse initiated in colonial times, when the British rulers took issue with certain Hindu practices like 'sati' and child marriage. That discourse, which comprises the arguments of the British and Indian pro-reformers, is itself historically situated and should not be left unquestioned. It is true that Ambedkar saw his HCB as a challenge to the law of Manu, but, as mentioned above, he did in his drafting of the bill draw on a multiplicity of Hindu texts and also on customary practices of smaller communities, looking for the most progressive elements therein. His objective was to incorporate into the code principles that were relatively emancipatory for women as well as being in some sense Hindu in their genealogy.

3 Although Ambedkar himself gave a central place to his work on the HCB, remarking that he had accepted the post of law minister in the Nehru government only for the purpose of bringing it into law, his efforts for the emancipation of women were not confined to this. From his burning of the *Manu Smriti* in 1927, to his address to dalit women at the time of the temple entry movement, we can see Ambedkar as a consistent champion of women's rights, and especially of the rights of dalit women who suffer the worst atrocities of patriarchy and the caste system. This too must be regarded as a part of the history of the women's movement in India [Pratima Pardeshi 1997].

4 The Hindu Marriage Act passed in 1955 does validate intercaste marriage and marriages violating customary bans on marriages between specific categories of kin in certain communities. But it is the 'law' of the caste panchayat that rules in most such cases. Violent punishments for couples infringing the caste norms are still common in north India, and do occur in other parts of the country also [Prem Chowdhury 1997].

5 See Kishwar (1997). however, Madhu Kishwar's position on the issue includes repeating that the major obstacle to OBC women entering politics is the attitude of their men.

6 For example, the National Association of Women's Organisations held a debate in Hyderabad on September 16 and 17, which attracted a much larger attendance than the organisers had anticipated. No consensus emerged, but there was a significant number of women demanding that caste aspects be given much more serious thought, and that they are relevant even in the case of Muslim women.

7 Gail Omvedt has made this suggestion in a recent newspaper article.

8 Ambedkar, collected works, Volume 14.

9 Nivedita Menon (1997) mentions how a journalist who takes a totally anti-feminist position on another issue (the accusation of sexual harassment made by IAS officer Rupan Deol Bajaj against her senior IPS collaeague KPS Gill) can, however quite easily come out in favour of reservations for women.

10 Nivedita Menon (1998) surveys a wide field and brings out some of the problems in producing "accounts of human rights or 'citizens's rights', or, indeed, 'feminist' or progressive narratives ... at this historical juncture"; but her own position on the 'feminist consensus' on the UCC remains unclear. She tells us that this consensus talks about 'working on setting up a comprehensive gender-just framework of rights covering not just areas already covered by personal laws, but also the 'public' domain of work (creaches, equal wages, maternity benefits, etc) which should be available to all citizens. Where these laws do not conflict with personal laws, they should be automatically applicable, and where they do conflict, it should be open to individual citizens to make the choice.'

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Limits of Economic Analysis

Sugata Marjit

Analytical Development Economics: The Less Developed Economy Revisited by Kaushik Basu; Oxford University Press, Delhi, 1998; pp 361, Rs 495.

KAUSHIK BASU'S *Analytical Development Economics* is an extended and modified version of his earlier textbook on development. It is now well known that Basu's earlier text has been a hit with both students and teachers of development economics in India and abroad. His was the first clean, classroom treatment of development economics. The profession needed a text badly to teach students how to use modern analytical tools to focus on traditional and contemporary development problems. The new and extended version includes two additional chapters on growth and development and the international debt problem. Both of these chapters are lucidly written, the models are well explained and the simple yet rigorous presentation of burning issues charms the readers.

Chapters 2 and 3 on the vicious circle of poverty and growth and development elaborate the age-old arguments in terms of recently developed structures. Among several papers written on the topic, Basu chooses the ones which should appeal most to the students. One particular issue missing in the discussion has to do with the problem of regional divergence and growth, an issue of monumental significance for large developing nations.

The chapters on inflation and growth and foreign exchange and trade retain most of the analysis available in the earlier edition. Basu's emphasis on Kalecki is noteworthy since many of the macro theorists in the west have failed to evaluate the true value of Kalecki's work. While the text gives a detailed account of the international debt problem, an area in which Basu has made notable contributions, the chapter on foreign exchange and trade seems to be a bit out of date. Both the 'two-gap' model and the so-called 'transfer-problem' are not the issues economists are currently bothered with. The conflict of multilateralism and bilateralism in world trade, liberalisation of trade and investment policies in the LDCs, trade-related intellectual property rights, multinationals, etc, are topics of growing interest. These somehow do not feature in the text. The paradoxical theorem on aid and welfare does not highlight the fact that in a two-agent setting, with usual preferences, if the Walrasian equilibrium is unique and stable, paradox cannot be the outcome. However, in a three-agent set-up bilateral transfer may lead to donor enrichment. The example Basu provides did come under severe criticism in the trade literature on the transfer paradox. There is a whole issue of the *Journal of Development Economics* discussing the problems associated with 'Chichilinsky Proposition'. Also it seems that the chapters are in need of a more explicit empirical orientation.

Basu's treatment of migration, unemployment and the rural economy is impeccable. Osmani's collusive theory of unemployment is a welcome addition to the section on surplus labour. Basu makes the task of a lecturer fairly easy by developing the details of a chapter with the vision of an outstanding teacher. Yet, in spite of being the most important development economics text of the contemporary world, it fails to draw our attention to some of the issues which shape the economic destiny of millions in the third world.

It is surprising that we never come across any discussion on the formation of state and making of economic policy in the text. Neither do we confront a scenario where an economist is visibly worried about the implementation of a policy, its adverse impact on the dominant influential political/social wing, its eventual dilution or disappearance. Hardly a section is devoted to the issue of governance, incentive structure, social norm, institutional constraints as manifested in the problems of centralised planning and/or decentralisation, etc. To some extent limitations of the mainstream treatment of developmental issues are recognised in the little concluding note on the identification of 'power' and its impact on resource allocation. But this appears as an appendage of the main content. Lewis's seminal piece on surplus labour, Sen's work on poverty, Stiglitz's contribution on efficiency wage have indeed clarified and enlightened complex issues – isolating logic from rhetoric, serious discourse from slogans and 'good' theory from 'bad' theory. Since economics can never aspire to give a definitive answer, prescribing good judgment is the most that can be suggested. Yet development economists in general fail to come to terms with the 'post-modern' nature of the problems. If modernity is synonymous with the inclusion and pragmatic application of analytical tools – mathematical or other – 'post-modernity' calls for identifying the right problems for a contemporary discourse. It is seldom the case that textbooks on development or write-ups in top development journals deal at length with the formation of economic policy, setting up of the agenda, implementation and hegemonic influence. Textbooks on development economics evolve around a traditional paradigm – is policy A the right one for target X, or should policy B be adopted? Hardly anyone questions how policy A has come to be formed and how policy B, with all its textbook merits, pragmatism and finesse will never be adopted in a particular country.

It is not the understanding of the policy itself that matters, it is the problem of implementation, in particular social, economic and cultural resistance to a particular policy, which should be focused in greater detail. A policy which fulfills reasonable criteria can be a disaster when tabled as a bill in parliament. A policy that belies every inch of common sense economics may be accepted wholeheartedly because politicians love it.

It is true that every book is written with a purpose. Kaushik Basu's attempt, to make students of economics familiar with the problems of development, is remarkable. It is a book like this that gives development economics a well-deserved respectability in the profession. At the same time, the book is constrained by the narrowness of the discipline. It struggles to come out of the recognised domain by throwing in chapter 15, 'The Limits of Economic Analysis'. Basu's own work on power, corruption and social norm do not find their proper places in the text. However, we may conclude on an optimistic note. One may hope that sometime in the future, in some later editions of the book, the author will traverse beyond the mundane and fulfil the promise of a more adventurous text.

From Welfare to the Good Life

Sarah Joseph

Theorising Welfare: Enlightenment and Modern Society by Martin O'Brien and Sue Penna; Sage Publications, London, 1998; pp viii + 248, £45 (cloth), £14.99 (paper).

THIS is one more of the many introductory texts which have come on the market in recent years. The book discusses a wide range of theories and political perspectives which the authors feel are of relevance for understanding the organisation of welfare in contemporary capitalist societies. It makes no claim to originality except in the manner in which it places the concept of welfare in the widest possible political and philosophical framework and locates important contemporary writings within the different perspectives which are discussed. If I were to place it within the classification well understood by students in India – guidebook, textbook, reference book – I would place it among the textbooks, which is where the publishers also have located it.

For the benefit of readers who may not understand the significance of the above classification, let me explain that students would define guidebooks as books which follow course contents fairly closely, and which obviate the need for further reading, perhaps even the need to attend classes. They require neither sophisticated language skills nor much understanding since they are often learnt by rote. The only skills needed are of cutting and pasting, skills similar to those performed by any word processing programme. Such books are obviously based on secondary material and they try not to espouse any particular political or philosophical perspective. There is a firm belief among students that guidebooks are the key to success in examinations. Even successful IAS candidates have been heard to boast about exclusively relying on them. However, every reader cannot hope for equal success and although students might blame 'the system' for their lack of success, it is likely that class-based skills such as language skills, and general knowledge and social poise probably provide that crucial extra.

At the second level, textbooks would be distinguished by being less closely linked to particular syllabii, by sometimes expressing preference for a particular perspective, and by requiring greater language and analytic skills than guidebooks. I would not here discuss the extra-ordinary and continuing success of books like Samuelson on economic theory which fall outside the mainstream of textbooks. Reference books would be those which make a substantial contribution to the subject discussed. In the life of many students in India today, all three may be supported by a floating pool of notes and tutorials which have scored high marks in the past. Even if publishers and teachers may not always know how to classify a book, students work with this classification quite easily. It is interesting to note that of late some students have entered the market as producers of books based on their notes and readings. It is good to think that our educational system does not at least kill entrepreneurial talents! But this is a digression.

The authors of *Theorising Welfare* have defined welfare "as a label for a complex and unstable mixture of relationships, experiences, processes and structures". Virtually every institution and process in contemporary capitalist societies is involved in the provision of welfare they maintain, from wasteland management to industrial production to the regulation of family life. Thus it is not welfare in the sense of the Beveridge plan which they discuss but welfare as anything which contributes towards well-being or happiness. The book claims an interest in expanding the potential for welfare by helping us understand the welfare implications of different philosophical and political perspectives. Liberalism, Marxism, Neo-Liberalism, Poststructuralism, Political Economy, Political Ecology and Post modernism constitute the broad headings under which theories and welfare policies have been discussed. The wide framework of analysis is both a strength and weakness of the book. On the positive side, it relates the discussion of welfare to contemporary developments and takes into account the new internal and external challenges facing the state today. Internal changes which have taken place in contemporary capitalist societies include changes in the techniques and organisation of industrial production which are summed up as post-Fordism, changes in the organisation or disorganisation of capitalism, and the decline of the traditional working class. External changes include changes in the role and functions of the state in an era of global capitalism. While the sheer range of theories discussed is impressive, a negative consequence is that this often leads to some tediousness for the reader. Further, it also dilutes the cutting edge of the concept of welfare. If virtually every social process affects welfare, and the focus on redistribution and equity is removed, welfare would lose much of its value either as a goal or as description of a particular kind of state.

A formidable array of theories and debates has been discussed in the book. One can only admire the capacity of the authors to summarise complex debates though it is not entirely exegetical. Interesting and critical comments are interspersed with chunks of summary. For instance, the limits of Keynesian policies and Beveridge's approach are clearly discussed and the welfare state in Britain of the post-war years is succintly described as a "technocratically supervised distribution rather than a redistribution system". Marxists have for long maintained just this but now this view is put forward by the authors as liberal wisdom as well as common sense though they draw different lessons from this to the Marxists. Welfare policies in contemporary European societies are discussed in the book with reference to the changes which have taken place in capitalism. Writers like Claus Offe and John Urry are quoted to argue that there has been a shift of interest in those societies from issues of poverty and need to quality of life issues and that the concept of welfare has changed accordingly. Moreover, changes in capitalism have meant that states have had to devise new strategies to deal with the new issues which are dominating the politics of European societies. Although the argument that the issues of redistribution and poverty removal are irrelevant may provoke some resistance in countries like India some aspects of the critique of traditional welfarism in the book raise important questions which have not been adequately addressed here. The charge that the ever-escalating demands for welfare can only promote environmental degradation is a serious one. The welfare state originated in capitalist societies and drew its resources from profits made in the market either through the direct involvement of the state in production or through taxation of producers. This increased pressures for innovation and development which have had a disastrous effect on the non-human environment. The hope was that the state would be able to regulate production to minimise environmental degradation but the figures quoted by the authors indicate

that even the German state, which has a relatively good record in this respect, has been quite ineffective in controlling industry. The prospects for developing societies are ominous. It might seem that the logical answers would be in the direction of pursuing redistribution more vigorously while at the same time trying to change the high-consumption notions of welfare which have captured the imagination of people all over the globe. But the authors content themselves with delineating the problems as they perceive them without going into possible solutions. Their main thesis is that theories of the welfare state were grounded in the enlightenment belief in a manageable and predictable universe and the possibility of individual and collective progress and that present day developments in capitalist societies challenge this worldview, replacing it with a multiplicity of competing and intersecting visions of the good life. The book has tried, with reasonable success, to explicate the implications and social costs of these different perspectives. It is dense with references and summaries of theories but it also draws attention to some important issues concerning welfare today. It could prove useful for those interested in the field although the cost may put off individual buyers.

Publicists and the People

G P Deshpande

Prints and Politics: 'Shibao' and the Culture of Reforms in late Qing China by Joan Judge· Stanford University Press, Stanford, California, 1996; pp xiv + 296, price not stated

THE world of Sinology was always fascinating. One of the many reasons why it has been so is the emphasis that world has placed on China's and Chinese intellectual aspirations. The role that language plays in modernisation and modernity is never lost sight of. The book under review is one of that large body of work in Asian history which does take the business of language and modernity seriously.

This is a study of a Chinese daily *Shibao* which means *The Times* except that the paper itself chose to translate *Shibao* as 'The Eastern Times' presumably to distinguish itself from the London or New York *Times*. This newspaper was founded in 1904 in Shanghai and continued its publication till 1939. This, however, is not a study in journalism. It is rather a study of the 'the print' as a 'mediated' medium. In the late 19th and early 20th century this meditation played a significant role in modernising Asian Societies. The people mostly responsible for this were those who belonged to *zhongdeng shehui* or 'middle level of society'. It is remarkable how much the same phenomenon is to be seen in the late 19th and early 20th century India. In fact, there was a daily newspaper in Pune which was called *Kal* the exact synonym of *Shibao*. One does not know if our historiography of the times has addressed itself to the problem of *zhongdeng shehui* as much as Chinese historiography has done. The continuities and the organic unity of the Chinese societies are rarely questioned. In India they usually are.

It is, however, not only the *zhongdeng* part which was important. It was its reformism that led to a lot of significant journalism in the early phase. It was a function of that reformism that the question of "reconciling China's cultural heritage with a new mode of politics, the one with which the late Qing publicists struggled in their editorials" acquired centrality. It is a continuing debate in China. As late as the 80s of this century, Joan Judge points out, intellectuals like Su Wei, for example, recommended "jettisoning the foreign idea of civil society altogether and encourage[d] Chinese intellectuals instead to search for 'new ideological sources' from China's own legacy" (p 203). In that sense the history of early Chinese journalism is the history of creation of ideas which seem to have had a remarkable enduring power in China.

Early Chinese journalism acquired this status not only because it advocated a set of ideas. It also stood by the common people and their struggles against oppressive economic and political policies. An article in *Shibao* published in 1910 made an interesting distinction between rioters (*luanmin*) and rebel bandits (*panzei*). It was customary to dismiss all opposition, often violent, to government policies as rioting of the bandits. In a sense *Shibao* was the first journal to have distinguished between (rebel) rioting and rebel banditry. The most fascinating chapter of the book is the one on 'The Common People's Causes' naturally reflected in *Shibao* (pp 120-39).

This book is divided in three sections. The first section (pp 1-75) discusses the rise of the new middle realm, a reference to which has already been made. The second section discusses the relationship between "the publicists and 'the people' " (pp 79-140). The publicists are presented as the Confucian noble men (*junzi*). These noble men worked on the assumption that "the people could be transformed...from the dependent subjects to the creators of their own destiny" (p 81). It is true, as the author points out, that who the people are was never made clear. The noble men went on articulating and at times shaping the demands and aspirations of the 'people'. These noble men were certain who the 'system' benefited. It was 'corrupt officials' who made "the lives of the people increasingly difficult". Most writers of *Shibao* seem to have taken for granted who the people were or who constituted the people. Joan Judge, however, has not pursued this line of enquiry. The third part discusses the publicists in their role versus the power holders (pp 143-204). This part naturally discusses the role of the press and the 1911-12 revolution in China, easily the most useful and perceptive section of the work.

The book is full of cartoons and illustrations, a major part of any lively journalism. Looking at these cartoons, I often wondered if Indian newspapers (in Indian languages that is) carried such lively cartoons in their pages. Probably not. The art of cartooning is new to India. Political cartooning is even more so. The Chinese calligraphy adds its own charm to the exercise. A good example of the same is the cartoon (dated August 8, 1908) giving us two views of the national assembly [*guohui*] by simply presenting the two characters *guo* and *hui* in thick or light strokes.

On the whole, therefore, this book is a significant addition to the Chinese Studies. It is weak on political analysis because quite often Joan Judge states a position without going into the political implications of the same. The fault must be of the times we live in. The post-modernist world is also a post-political world. Inadvertently, Judge has given a good example of it. In the introduction itself, she identifies Lenin as "the chief Bolshevik agitator" (p 4). Does one need to say more?

Marxism and The Postcolonial World

Footnotes to a Long March

Aditya Nigam

What is it that Marx can still offer us? Why hark back to him and his legacy? Why not abandon him altogether and construct our very own theories? Such queries can be answered by asserting simply, that the major resources that can provide even the starting points of a new emancipatory theory lie within the tradition of Marx. More importantly, just as the 'original Marx' is lost to us, so is the 'pre-marx' era of human thought. This essay attempts to open up the space for a reconstruction of a new emancipatory vision for the 'third world', which cannot but draw heavily on marxism, even if it is marxism reincarnated.

THIS paper is as much about the postcolonial world as it is about marxism. More importantly, it is about the relationship about the two. I use the term 'postcolonial'[1] here to refer to something more than a mere temporal marker – as more than something that comes after the end of colonialism. Rather, it refers to the entire region of the Three Continents[2] since the beginning of its encounter with colonialism, and through it, their encounter with modernity; it therefore points towards that whole range of conditions that mark it out as distinct from the first world – political, economic, psychological and cultural. If colonialism was the dominant agent of modernity in these societies, it was certainly no the only one. A certain marxism, particularly after the Russian revolution of 1917, became a potent force through which the emancipatory ideals of the secular-modern imagination entered this world. And yet there remains a continuous tension between the high discourse of modernity entailed in it and the existential situation of this world, which becomes complicated by the day.

The end of the 20th century marks the end of a gigantic emancipatory project, probably the largest ever in history that was carried out in the name of that marxism, which met its end with the collapse of 'actually existing socialism'. What I will henceforth refer to as 'canonical marxism' represents the demise of a certain vision of freedom, its rapid degeneration into its very obverse – a massive project of social engineering, of trying to fit the whole world into One Past and One Future. In its entirely misplaced effort to efface all difference, it ended up, in the process, effacing itself.[3]

The project of erasing difference began from within. In order to be able to cast the world in the single mould of the vision of the Third International and its inheritors, it was first necessary to erase difference from within its own ranks: its own self had to be reconstituted, in a manner of speaking. What I call the 'footnotes' to marxism are precisely those elements of its self, those currents of thought that comprised its rich variety before the onset of orthodoxy, that were waylaid and pushed to the margins. As a matter of fact, 'footnotes' still have some existence on the page of the text, some visibility within its overall existence. To that extent, the expunged parts of the communist self are more like 'endnotes' – pushed beyond the frontiers of visibility which we can see only after the chapter is closed (or the book?). They are what Javeed Alam has, in the context of the philosophical traditions of modernity, called the 'unembodied surplus' of the tradition [Alam forthcoming]. The communist/marxist self that was expunged and thus pushed outside the text, as it were, has kept reappearing in different ways in different times and places, always keeping the flame alive, though it has occasionally had to disguise itself in conventional modes of appearance. From the council movements of the early decades of the century in Europe, to the various shades of the New Left students' upsurge in the late 1960s, off and on, there has been a revival of some strands of the unorthodox traditions. Even after the collapse, the idea of a communist future continues to survive in very different ways and continues to inspire struggles in large parts of the world, especially the Three Continents, including India.

I do not intend here to recover all the lost voices – the 'endnotes' of marxism – for they were too context-specific and cannot help us in any significant way today, except of course, to highlight to us[4] our own history, to help us understand how one 'self' – the critical self – of marxism was killed. In this essay, I only wish to open up the space for a reconstruction of a new emancipatory vision for the 'third world', which cannot but draw heavily on marxism, even if it is marxism reincarnated. I am aware, in the manner of the Marx of the *Grundrisse* that the search for origins, for the 'real' Marx is a futile one. For one thing, he is inaccessible. For another, the world that has traversed a century and a half since then demands much more than he can offer. After all, it was Marx who constantly reminded us that ideas can never have transhistorical validity; that they arise within given socio-historical contexts and become meaningful within them.

What is it then that Marx can still offer us? Why hark back to him and his legacy? Why not abandon him altogether and construct our very own theories? One can respond to such a query by asserting simply, that the major resources that can provide even the starting points of a new emancipatory theory lie within the tradition of Marx. More importantly, just like the 'original Marx' is lost to us, so is the 'pre-marx' era of human thought. The tradition of Marx permeates the very world we live in and the very air we breathe, to borrow an expression from Castoriadis (1987). Any new vision must therefore be, can only be based on an immanent critique of 'actually existing marxism' and if Marx himself allows us the resources to build that critique, we can only welcome it.

An idea of the unprecedented theoretical and cultural diversity and richness of the tradition can be had from even a cursory look at the various streams of thought that have been influenced and inspired by the vision and the thought of Marx. Kolakowski's majestic *Main Currents of Marxism* provides a glimpse of that tradition. I say 'glimpse' because that account too is incomplete and fails to capture

the developments in the non-western world. Even Kolakowski's otherwise brilliant account that consciously tries to retrieve the lost currents within marxism falls prey to the widely held belief that theorising about Europe and the west is theory while theorising about the backward colonies must form part of some area-specific empirical/practical pursuit ('area studies' in the contemporary academic world). Nevertheless, the volume does give a sense of the ways in which marxism in its youth, as a revolutionary theory/vision was adapting itself to the conditions where it was taking roots, and thus engaging with the complicated variety of the situation.

In this essay, I wish to explore through an investigation of the fate of Marx's doctrine, two inter-related sets of questions. The first set of questions relates to the problem of the specificity of the postcolonial world and the problems of simply 'applying' theory born in the west to conditions so very different. This problem is further complicated, I will argue, because underlying the theory there was always the Eurocentric assumption of the invincibility of the west, thanks to its 'higher level of development'/ 'advanced mode of production' and its being possessed of the magical wand of Science and Reason – that is History (Future History?) embodied. The second set of questions has to do with the ways in which marxism's canonisation itself led to the destruction of the emancipatory potential – both in its theory and in the organisational forms mediating its practice.

Also related to the first set of questions is the entire Indian debate on secularism and modernity. I will not go into that debate here, but suffice it to note that so far it has been framed in terms of the state/community and tradition/modernity dichotomies. While the Indian debate reveals rich insights into the questions at issue, it remains caught within its own terms. So for instance, the entire body of writings deals with secularism (and modernity) being colonial impositions and therefore state-centric – for critics and supporters alike. The question then really hinges on the nature of colonial interventions in Indian society. Many critics of secularism would argue that the fact of colonial imposition should alert us to its inherent limitations, while many secularists have been arguing that as the colonial state merely built on processes (and resources) within precolonial society, it did not really introduce a fundamental rupture. I shall merely point out here that there was at least one more route through which the secular-modern imaginary entered societies like India's: this was the route of marxism which had neither the burden of the state nor the colonial legacy to shoulder and which should therefore have made it different in its approach form that other secularism. As it happens, the fate of left-secularism and state-secularism actually converged as the going became tough. This, I will argue, had something to do with the profound rupture – an epistemic rupture – introduced by the canonised versions of marxism.[5]

There is one more problem that lies somewhere between the first and the second. Marxism travelled eastwards through the agency of the Comintern – the codified canon embodied – or through its constituent 'sections' like the Communist Party of Great Britain (CPGB), in the case of countries like India. There is therefore, a complicated dynamic in the way the first problem is itself mediated by the second circumstance. One of the problems of 'applying theory' in this fashion is that not merely the cultural but also the politico-historical context and specificity of the countries where the 'application' is intended gets ignored. What happens if the application is undertaken through the mediation of a highly centralised and rigid structure like the Comintern, therefore, will form a part of the following discussion.

I

On the 150th anniversary of *The Communist Manifesto*, there is a fundamental question that needs to be asked. In order to pose the question I will first quote a passage from one Tricontinental marxist:

> In a book published by the Argentine historian Gustavo Beyhaut concerning the problem of race in Latin America, for example, we find a number of interesting references to Engels among others. In an article published on January 23, 1848 in the *Deutsche Zeitung* and another published in February 1849 in the *New Zeitung*, Engles discusses the war of 1847 between the United States and Mexico. He refers quite unambiguously, to the positive character of American expansion in Mexico, insofar as it represents the expansion of an advanced civilisation...This could be extended even, let us say, to cover Vietnam a cen ury later [Abdel-Malek 1981].

Abdel-Malek's ironic remark pointing to the fact that a century later the same could under no circumstances be extended to Vietnam says something about the profound change, the radical alteration of the terms of discourse that had already taken place in marxism during the intervening century. Was this simply because the nature of capitalism's expansion underwent a qualitative change with the appearance of imperialism? Or was it the case that with the appearance of Lenin's *Imperialism, The Highest Stage of Capitalism*, the basis was laid for the complete transformation of marxist discourse? There are any number of quotations that can be marshalled from the writings of the founders of marxism and Abdel-Malek (1981:81-82) has furnished some of them to show how 19th century marxism shared a common ground with Orientalist discourse – in fact was largely located within it.[6] What is relatively uninvestigated is the transformation referred to above.

In 1848, *The Communist Manifesto* proclaimed:

> The bourgeoisie has subjected the country to the rule of the towns. It has created enormous cities, has greatly increased urban population as compared with the rural, and has thus rescued a considerable part of the population from the idiocy of rural life. Just as it made the country dependent on the towns, so it has made barbarian and semi-barbarian countries dependent on the civilised ones, nations of peasants on the nations of bourgeois, the east on the west" [Marx and Engels 1982:39].

Notice that the terms 'rural population', 'country' 'barbaric and semi-barbaric countries' and the 'east' are all analogous categories – repositories of idiocy (the lack of Reason?), embodiments of a past that was unproblematically and unadulteratedly 'barbaric', which often enough, it undoubtedly was. Since then, things have changed significantly, so that today, if at all marxism survives it does so in the Three Continents. Its long march has traversed not merely one and a half centuries, it has moved from the west where it was born, to the east which it saw as the habitat of the barbarians and the irrational, and where it found its most enduring residence.[7]

If in the 1990s, the only hope of all shades of marxists resides in the Three Continents, I shall suggest, once again taking the cue from Abdel-Malek, that what happened in this period to marxist theory, crucially, was the displacement of the historical/economic determinist problematic and the centrality acquired by the 'specificity of the political'. If the celebratory tone of the *Manifesto* was predicated upon the 'higher technological and cultural/civilisational levels' of capitalism (that made it the 'unconscious tool of history'), the Leninist-Maoist moment of marxism's development privileged the

political – the revolutionary potential of the oppressed peoples and the peasantry of the colonial world and, in its later form, of the 'third world'. There are major tensions on this point in the writings of Lenin, whose initial faith rested on the west and subsequent to the October revolution, specifically on the European proletariat which would be the standard-bearer of world revolution. We shall encounter some of these later in the discussion. The Maoist movement, on the other hand, in the enunciation of the contradiction between 'national liberation struggles and imperialism' as the central and focal contradiction of the epoch, (at the time of the Great Proletarian Cultural Revolution), represents the complete displacement of the economistic problematic. The fact that the Chinese people were 'poor and blank' became the virtue, the source of their revolutionary energy. The subsequent, completely bizarre form in which this expressed itself in the so-called Three-Worlds Theory, also represents to an extent the extension of the same dynamic – though that has a lot to do with the specific nature of power-struggle within China and externally, with China's battle for supremacy within the international communist movement with the Soviet Union. The populism of the postulate of the 'convergence of interests of the US and the USSR' was probably meant to rally the movements in the Three Continents with pure rhetoric, unable as China was to compete with the USSR in supplying arms to them. That should not however detract us from assessing the theoretical significance of that rhetoric. Nor need that lead us to any concession in assessing the disaster that was the Cultural Revolution.

II

A Methodological Detour

Before going into the specific substantive issues of the problem, it is necessary to clear certain methodological points straightaway. From within the writings of Marx, it is possible to sift out passages and quotations supporting different methodological standpoints – from the extreme historicism and humanism of a Lukacs to the extreme anti-historicism, anti-humanism and structuralism of an Althusser; from the economism/economic determinism of the Second International and Stalin to the 'politics in command' of a Mao Zedong. As I indicated in the beginning, it is not possible to extricate 'the real Marx' from this bewildering array of interpretations. Since we always read texts from our own specific historical locations, it is simply necessary to specify my Marx. As will be seen, this Marx is closer to and influenced by Althusser's though, in some respects, very different. My main difference with Althusser here is that unlike him I do not consider the search for an authentic moment in Marx either fruitful or valid. There cannot be a neat periodisation that says that after one particular point there is a scientific and mature Marx, who alone we can look up to.

In the famous 1857 *Introduction*, subsequently published in the *Grundrisse*, Marx conducts an elaborate discussion on the 'method of political economy'. He says,

> Bourgeois society is the most developed and the most complex organisation of production. The categories which express its relations, the comprehension of its structure, thereby also allow insights into the structure and relations of production of all the vanished social formations out of whose ruins it built itself up, whose partly still unconquered remnants are carried along within it, whose mere nuances have developed explicit significance within it...*Human anatomy contains a key to the anatomy of the ape*. The intimations of higher development among the subordinate animal species, however, *can be understood only after the higher development is already known*. The bourgeois economy supplies the key to the ancient...But not in the manner of those economists who smudge over all historical differences and see bourgeois relations in all forms of society. One can understand tribute, tithe, etc., if one is acquainted with ground rent, but one must not identify them... [Marx 1973:105] (emphasis added)
>
> It would therefore, be unfeasible and wrong to let the economic categories follow one another in the same sequence as that in which they were historically decisive. Their sequence is determined, rather, *by their relation to one another in modern bourgeois society, which is precisely the opposite of that which seems to be their natural order*...[ibid:107] (emphasis added)

This is the premise that informs much of the *Grundrisse* and much later, Marx remarks once again that, "(I)n order to develop the laws of bourgeois economy...it is not necessary to write the real history of the relations of production" [ibid:460]. What Marx underlines here is that the past is always available only through the present: that it is only through the categories of thought produced in the present, through the language we inhabit that we can really make sense of the 'facts' that constitute the past. That therefore, the possibility of return to the origins is not only historically closed, it is also epistemologically absent. To elaborate, Marx is here anticipating the postmodernist/poststructuralist thesis that there is therefore a radical uncertainty about the past ('the myth of origin') for there will be as many pasts as there are presents; that at every turn of the present we rediscover and reconstruct our narratives of the past. The present, however, Marx himself tells us, is never available as Truth, for there is always the 'truth' of the proletariat against the 'truth' of the bourgeoisie. To a certain Marx of the 19th century, this problem of truth is resolved through the resort to a metaphysical teleology: the proletariat as the embodiment of the truth of universal history. If that recourse is not possible to our Marx, the problem of truth is destined to remain unresolved. There are bound to be contending claims of truth and correspondingly, contending constructions of the past. This is true as much of Marx himself for this way of reading Marx is also possible only in this present – the present of the decline of certainties of the universalist discourses of the past.

If the impossibility of knowing the past from an archimedean point was already evident to Marx, why did he not push his point further and become the first postmodernist? Marx himself would probably forbid such a question but let us venture a guess. It is interesting to see that he was aware of some of the uses to which his argument could have been put and grapples painfully with the possibility in later passages. Having demolished in no uncertain terms what Althusser would call 'the historicist fallacy', he is faced with the following dilemma: In the context of bourgeois society, would he not, even if by default, be playing into the hands of (the arguments of) bourgeois economists who considered its categories (and bourgeois economy itself) as eternal/natural? This is how he poses the question:

> Although it is true...that the categories of bourgeois economics possess a truth for all other forms of society, this is to be taken with a grain of salt. They contain them in a developed or stunted, or caricatured form, etc, *but always with an essential difference*. The so-called historical presentation of development is founded,...on the fact that the latest form regards the previous ones as steps leading up to itself, and since it is only rarely and only in quite specific conditions able to criticise itself...it always conceives them one-sidedly. The Christian religion was able to be of assistance in reaching an objective of earlier mythologies *only when it own self-criticism had been accomplished to a certain degree*...Likwise,

bourgeois economics arrived at an understanding of feudal, ancient, oriental economics *only after the self-criticism of bourgeois society had begun* [ibid:106]. (emphasis added)

The tension is evident: it is true that bourgeois economics holds a truth for all other forms, but how can that be? It must therefore be with an essential difference. Yet, is that the tension? Probably not. More likely, it is a tension between the Marx of our reading and the other Marx – the seeker of truth. There is therefore a conflation of two orders of truth. In the very first sentence of the passage, 'it is true' refers to a historical/contextual/contingent truth but in the same sentence, the reference that these categories possess "a truth for all other forms of society", appears as an eternal, transcendental truth that his own reflections show to be impossible. That is why he has to clumsily state that this is revealed in a one-sided and caricatured form.

The last passage however also reveals to us an important but relatively untheorised category of Marx that is of central importance in the production of knowledge. This is the categoryof 'self-criticism' or what can also be called the immanent critique What precisely is this 'self-criticism' and what does it help reveal? Surely this self-criticism cannot mean that suddenly, one fine day, Christianity or bourgeois economics became (through some change of heart?) more self-reflexive It makes more sense to see this self-criticism as the breakdown of the hegemonic discourse within which past forms had been constituted in specific ways that justified the hegemony of the hegemonic forces. If Christianity or bourgeois economics had to make room for accommodating more empathetic ways of understanding paganism or pre-bourgeois forms, it was precisely because of this breakdown of their hegemony. Charateristically, it is in these moments of break that spaces are created for re-assessing/re-apprehending objects/forms/categories rendered invisible by the structure of the hegemonic discourse

Now, what applies to the discourse of Christianity or bourgeois economics, must apply equally to any discourse including Marx's own, which in its subsequent transformations, became as theologically rigid as say, Christianity. I am especially thinking of the marxism of the Second and Third Internationals It must equally importantly, apply to the discourse of the Enlightenment, in which Marxism constituted a moment of self criticism. The present conjuncture, that of the postsoviet world and the collapse of the hegemony of canonical marxism and of Enlightenment discourse affords us precisely the opportunities of reconstituting the premodern/pre-capitalist forms within the new discourse of 'self-criticism'. Since every negation is always-already an affirmation, let there be no illusion that this self-criticism of the postmodern conjuncture would not also be bound to be predicated upon a series of repressions – of certainties of universalism, of self-transparent/transcendental subjectivities, of the search for origins, to name a few.

III

In 1848, when the *Manifesto* was published, the west was the centre of the world and the world revolution, and the east figured in the document – as in many other pronouncements of the founders of marxism – as a mere remnant of the past. I have already quoted some of the relevant passages above. Not only are they steeped in Orientalist common sense, they are also fully in line with the metaphor of darkness and light that is the central organising principle of the Enlightenment. I have however quoted these passages not to say that Marx was an Orientalist or racist. The point is precisely the reverse: Even for a revolutionary like Marx, it was not possible to apprehend these forms/formations by stepping outside the discursive horizon of his times.[8] What were different societies, different cultural configurations located outside the physical space of the Enlightenment, became transformed and constituted as temporally prior – as relics of the past whose dissolution had to be welcomed as they represented backwardness. The east was backward because of its superstitious beliefs in religion, magic, sorcery and the like; never mind if mathematics, print technology and gun powder the three major powers of modernity and colonialism were discovered/invented in the east. It had to wait for the west to civilise it, to bring it to light.

Fernando Claudin (1975) has, in his studied and extremely well documented account of the Communist movement, pointed to the degeneration of the marxist doctrine under Stalin. He has shown how, in country after country, it was the needs of the Soviet state and Stalin, that were responsible for turning the defence of marxism and the internal revolutionary struggles into a subordinate position to the defence of the Centre of World Revolution. This centre, according to him was once the Comintern that had already become the instrument of Soviet foreign policy interests but the problem was that even that entailed some mediatory forms like consultations with leaders of some of the important parties, particularly those who were represented in the executive committee of the Comintern (ECCI). Claudin argues convincingly that it was the need to do away with these minimum impediments to the complete annexation of the communist movements in different countries to Soviet interests that led to the Comintern's dissolution and its replacement by the Soviet state as the new centre. Claudin argues here as a marxist and his argument is radically different from the type of cold war writings that were once the staple of western marxology.

In the history of the Comintern, he shows how the problematic category of the 'east' appeared as a crucial one through successive struggles within. He shows that Lenin himself was till as late as 1912, a European at heart. In his article on the 'Awakening of Asia', written in the wake of Sun Yatsen's revolution in China, Lenin wrote welcoming the revolution:

> Does that mean ..that the materialist west has hopelessly decayed and that the light shines only from the mystic, religious east? No, quite the opposite It means that the east has definitely taken the western path, that new hundreds of millions of people will from now on share in the struggle for the ideals which the west has already worked out for itself" [Claudin 1975:50]

There is a long history to the way in which Lenin came to reappraise the situation and theorise the rise of imperialism, especially after the revolution and the formation of the Comintern, when he actually had to deal with the question of the 'backward nationalities' within Soviet Union and in the world at large. Much of that history is well documented and need not be recounted here. I shall merely recount some of the telling instances below. Claudin's account clearly maps the changes in the attitude of the Comintern. He claims that the First Congress almost completely ignored the question of the colonies and

> expressed very clearly the traditional ideas that were strongly rooted in the minds of the marxists: 'The emancipation of the colonies is possible only in conjunction with the emancipation of the metropolitan working class. The workers and peasants not only of Annam, Algiers and Bengal, but also of Persia and Armenia, will gain the opportunity of independent existence *only when the workers of England and France have overthrown Lloyd George and Clemenceau...*' [Claudin 1975:246]. (emphasis added)

Claudin argues that three things happened between the First and the Second Congresses that put the 'national and colonial question' on the agenda. First, the ebbing of the proletarian revolutionary tide in the west. Second the upsurge in the colonies and third, the sharp rise of the national and colonial question inside the Soviet Union [ibid].

The Second Congress, which was attended by many delegates from the colonies, saw the almost complete reversal of the above position in the stand taken by these representatives like M N Roy. Claudin quotes the report of the Congress Commission on the National and Colonial Question, which said that "Comrade Roy defends the idea that the fate of the revolutionary movement in Europe depends entirely on the course of the revolution in the east" [ibid:247]. Roy was, of course, basing his argument on the idea that as long as the imperialist powers continued to extract super-profits from the colonies they would never enter into a terminal crisis of capitalism. Lenin countered Roy by referring to the fact that "(I)n spite of the fact that the proletariat in India numbers five million and there are 37 million landless peasants, the Indian communists have not succeeded in creating a communist party.. *This fact alone shows that Com. Roy's views are to a large extent unfounded*" (emphasis added) [ibid-248] Clearly Lenin was hitting below the belt by putting forward this entirely non-theoretical argument. This fact really showed nothing so far as the question at issue was concerned.

The Third Congress, held a year later, completely bypassed the issue due to certain strategic requirements of the USSR I will not go into the details of these requirements but suffice it to note that Roy had to protest against it while making his report on India, where the mass movement was reaching unprecedented heights. I quote: "I have been allowed five minutes for my report. As this theme cannot be dealt with adequately even in an hour, I wish to employ these five minutes for an energetic protest." He went on to remark that "the way in which the eastern question has been dealt with at this Congress is purely opportunist and is worthy rather of a Congress of the Second International."[9] In the Fifth Congress, the issue was raised forcefully by the Japanese Communist Party delegate Sen Katayama and Ho Chi Minh (then Nguyen Ai Quoc).

It is interesting in this context, to note that at the Fourth Congress, Tan Malaka of the Indonesian CP narrated the story of the CP's collaboration with an oragani-sation called the Sarekat Islam. He said:

> ...We collaborate with the Islamists... Between 1912 and 1916, this union had one million members, perhaps it had three or even four million. It was a very large proletarian union which sprang up spontaneously and was very revolutionary. Until 1920 we collaborated with this union...In 1921 we succeeded in making Sarekat Islam adopt our programme and it went into the villages agitating for control of production and for the watchword: 'All power to the poor peasants and to the proletariat. However, a split occurred in 1921, owing to the tactless criticism of the leaders of the Sarekat Islam. The government and its agents made use of this split, and also of the decisions of the Second Congress of the Comintern, to fight against Pan-Islamism.

In the midst of this narration Marchlewski, who was at the Chair, interrupted: "Your time is up". To this Malaka replied, "I have come from India, it took me 40 days to come here" and continued amidst applause, to express what can only be described as the most crucial existential crisis of a communist of the colonial world: "*they (the Sarekat Islamists) are with us 'with their stomach' (to use a popular expression) but with their hearts they remain with the Sarekat Islam – with their heaven which we cannot give them.*"(emphasis added) [Claudin 1975:Note 87, Chapter 4]

If this was the situation in the colonies in the rest of the world, the situation inside the USSR was no different – in fact, it was more complicated. Claudin writes of the Muslim peoples of central Asia: "Tsarist colonisation had taken in these regions...an 'Algerian' form: settlement by Russian colonists [peasants and also some workers], who inevitably acquired a colonialist mentality. When Bolshevik power was established in the heartland of Russia, this Russian minority...at once became 'Soviet' and from its ranks were recruited many of the 'Bolsheviks' who were to take over the leading functions in the new institutions." In 1920, Lenin sent one of his closest collaborators, Safarov, to study the problem and Claudin remarks that Safarov was to write some years later tnat.

> It was inevitable that the Russian revolution should have a colonialist character in Turkestan. The Turkestani working class, numerically small, had neither leader, programme, party nor revolutionary tradition.. Under Tsarist colonialism, it was the privilege of the Russians to belong to the industrial proletariat. For this reason, *the dictatorship of the proletariat took on a typically colonalist character* [Claudin 1975:256-57]

At the famous Baku Congress of the Peoples of the East, Narbutabekov from Turkestan made the following impassioned plea:

> We...have faith in our ..leaders of the world proletariat – comrades Lenin, Trotsky, Zinoviev and others, but all the same we must state...what we want, and the voice of the Muslim workers and the peoples of the east must be heard...Everyone knows that the east is utterly different from the west and its interests are different – thus, rigid application of the ideas of Communism will meet with resistance in the east...They [the leaders] should come and see for themselves what is happening in *our country*, what exactly the local authorities, whose policies drive the working masses away from the Soviet power, are up to...(I)n shedding our blood on the Turkestan fronts against the enemies of Soviet power, we bound up our lives closely with the working masses of the whole of Russia and *the accusations of chauvinist tendencies made against Turkestani leaders must be dropped*. I tell you comrades, that our Turkestani masses have to fight on two fronts. On the one hand, against the evil mullahs at home, and *on the other against the narrow nationalist inclinations* of local Europeans (emphasis added) [ibid: Note 85, chapter 4].

Notice the use of terms like 'our country' and 'local Europeans'. Notice also the fact that already the complexity of conflict between local cultures and high theory was being played out - the latter talking the language of universalism while the former were asserting their ineradicable difference. In fact, Narbutaketov's speech shows how their idea of universalism was predicated precisely on the recognition of difference – otherwise the fear was that in the name of universalism, local European nationalism would ride roughshod over them. Hence, the fight on two fronts. Between him and Tan Malaka, we see the really repressed voices of marxism, the traces of which we would find difficult to retrieve. The long history of marxism's sojourn in the east in fact, can be seen as one of continuous struggle between these two imperatives, between the dictates of a theory which talked an abstract language but was steeped in European traditions and therefore dismissive of other traditions and, the imperatives of making their own revolution which could not afford to adopt an instrumentalist attitude, let alone be self-depreccatory about their own cultures.

Most of the time however, as Abdel-Malek (1981:86) rightly observes, the communists from the colonies "were less concerned to expound theses than to say: we exis ."[10] To some extent, Roy did try

to theorise but then, in his theoretical predelictions he was more European than most other colonial marxists. His theorisations therefore, were mainly confined to asserting the importance of the eastern question and to demonstrate that it could not be made politically subordinate to the tasks of the communists in the west. Of all the Tricontinental marxists, it was Mao Tsetung who went furthest in his effort to theorise though, as we shall see these efforts too fell far short of the requirements. It may be useful then to look at some of his forays into theory.

IV

Three concepts seem to be of crucial importance to Mao Tsetung's attempt at dealing with the application of marxism's predominantly European theoretical paraphernalia and the rigid imposition of the Comintern's code. First, the 'law of uneven development' as an absolute law. 'Nothing in the world develops absolutely evenly', he proclaims [Mao Tsetung 1997: Vol I, p 336] Through this assertion, Mao in an almost instinctive fashion subverts the metaphysical positivist desire of finding laws and regularities governing human societies – much of which baggage marxism had itself inherited through the Second and the Third Internationals. Second, he makes what is his central conceptual move through his enunciation of the 'particularity and universality of contradiction'. The universality of the contradiction is simply the idea that 'contradiction exists in the development of all things'; that 'it is precisely in the particularity of the contradiction that the universality resides' [Mao Tsetung 1977: Vol I, p 316]. Universality, says Mao, is easier to understand because 'it has been widely recognised' since Marx, Engels, Lenin and Stalin, but "the particularity of contradiction is still not clearly understood by many comrades, especially the dogmatists."[10]

Notice here the second major subversion: If universality of contradiction was to a certain marxism, the universal appearing, *a la* a certain marxist Hegel,[11] in each particular and each particular representing a mere moment of the universal, Mao in one stroke, completely reverses its meaning. The particular now becomes the only way in which the universal can appear. This is Mao's famous law of contradiction. This notion is the second universal truth. The two statements together constitute what Mao calls 'the universal truths' of Marxism, thus holding on the idea in words but interpreting it in a way that practically denies it. In his rendering then, this is universality, but one which has no attribute of its own; it acquires everywhere the attributes of the particularity. That is why Mao can ask: "Why is it that the Chinese revolution can avoid a capitalist future and be directly linked with socialism, without taking the old historical road of western countries..?" and answer: "The sole reason is the concrete conditions of the time" [Mao Tsetung 1977: Vol I, p 341].

By making these moves Mao is further able to complicate notions of subjectivity and agency handed down by the internationals. Contradictions exist, according to him, not only between the exploiters and the exploited, but equally importantly, 'among the people'. In the concrete conditions of China, he refers to "contradictions within the working class, contradictions within the peasantry, the contradictions within the intelligentsia, the contradictions between the working class and the peasantry", etc [Mao Tsetung 1977: Vol V, p 385].

It is true that Mao never theoretically follows through and works out the ideas of subjectivity and agency in the light of these formulations but all through his practice we can see that he is acutely aware of the implications of the above. It is easy to see that, put this way, simplistic notions like a 'class-in-itself' turning into a 'class-for-itself' – another specifically 19th century Europeanism – become impossible to conceive. For, having already posited the contradiction within the class, it is neither possible to simply derive class consciousness from class position, nor think of a single unified will of a class – expressed through a single party. Needless to say, attributing a 'telos' of History to that is well-nigh impossible.

In case we had any doubts, Mao goes further. True, he does put 'contradictions among the people' in the category of 'non-antagonistic contradictions' as opposed to 'antagonistic' ones among the exploiters and the exploited. Yet, these are not fixed categories which can only be resolved in one particular way, consonant with the larger telos. So he argues that one can easily turn into the other. "(T)his contradiction between the two classes (the national bourgeoisie and the working class), if properly handled can be transformed into a non-antagonistic one and be resolved by peaceful methods" [Mao Tsetung 1977: Vol V, p 386]. On the other hand, "(I)n ordinary circumstances, contradictions among the people are not antagonistic...but if they are not handled properly...antagonism may arise" [Mao Tsetung 1977: Vol V, p 391].

The phrase 'if handled properly' then leads us to the third concept of Mao's: politics in command. Nothing but the limiting conditions are provided by the economy and the logic of production. The rest depends upon politics, upon how forces are rallied, how alliances are struck, how struggles are conducted and what organisational forms mediate each of these.

We must however, be cautious while understanding the use to which Mao puts these concepts. He wanted to puncture the rigidly structured and codified canon of the Comintern and create the space for his own activity. The political task of accomplishing the Chinese revolution demanded a partial rejection of that canon but in the balance of world forces then existing he could not afford to become another Tito – excommunicated by the communist world. It was to create this space that the idea of a particularity that not just expressed the essence of the universal but was an entity in its own right, becme important. The theoretical/philosophical task that followed from Mao's initiative, at once bolder and more conservative than Lenin's, was never undertaken, either by him or by his successors. In many ways therefore, Mao remained a believer in 'the universal truths of Marxism-Leninism' even though he often enough chose to define them in the above manner. Today, we surely can read these conceptual moves made by him in a more radical way.

This caution is necessary in order to understand that because the theoretical/philosophical implications were never followed through into an alternative theorisation of the specificities of the colonial world/east, marxism even its Maoist incarnation, remained within the larger framework of post-Enlightenment, often positivist, thought. It was therefore easy for it to slip back into the canon and in the case of China, into the high modernist paradigm that rules it in the post-Mao phase.

It is important therefore to underline here that to create a space for a different practice and an alternative theorisation is no substitute for an alternative theory. In order to accomplish that latter task, a further step is required: It is not enough to say that 'our history' is different from theirs; we must move towards a reconstruction of this history on its own terms. However, that is not our concern in the present essay, but I wish to state here that when I say 'on its own terms' it is not once again a search for the pristine, precolonial histories that I am suggesting. Nor am I suggesting that all responses of the nationalist leaders and intelligentsia to colonial

modernity that were based on some sort of dialogue with it, were a priori illegitimate. The search, on the contrary, must be based on an effort to understand why they related to colonialism in the way that they did.

In this section I will briefly look at the formative history of the Indian communist movement, which presents an interesting counterpoint to the Chinese case, for it is a movement that remains essentially hegemonised by the Comintern and the classical paradigm. Yet, in a peculiar way Indian communism too reveals the existential angst of other colonial communists.

It needs to be underlined that by the time marxism came to India, it had already undergone its first major metamorphosis. To the hundreds of youth who joined the communist movement in the country in the second and third decades of this century, marxism was an anti-imperialist doctrine of liberation from colonialism. That much was already self-evident. Its hostility to colonialism was a logical extension of it hostility to capitalism as such. On this issue eastern marxism did not seem to suffer from any internal contradiction Many of the youth who felt attracted towards the communist movement were nationalists to begin with, driven by a passion for a new, free India. Others were believers in Islam and anti-British, who wanted to fight for the Khilafat. For many of them though, their religiosity does not seem to have been articulated with their nationalism. These are points that are often overlooked when, all too easily the communists today are accused of having been the carriers of an alienated, western oriented way of thinking. There seem to be many more layers of complication than are visible at first sight, as we shall see later There was certainly something internal to communism too, that happened in later years that also transformed Indian communism to its subsequent alienated form.

The first generation of Muslim youth who went and joined M N Roy and became the co-founders of the communist party in Tahskent, were in fact 'muhajirs' – self-exiled or on 'hijrat' Roy writes of them that 'they were not even nationalists'. He then goes on to add:

> My preliminary efforts with the educated minority produced *greater results than I expected and wanted* Most of them *transferred their fanatical allegiance from Islam to Communism*(emphasis added). I had not spoken to them at all about Communism. I had only told them that driving the British out of India would be no revolution, if it was succeeded by replacing foreign exploiters by native ones. I had to explain the social significance of a revolution: that, to be worthwhile, a revolution should liberate the toiling masses of India from their present economic position. Instinctively idealists, they readily agreed with my opinion and jumped to the conclusion that if the revolution had to liberate the toiling masses, it would have to be a Communist revolution [Roy 1984:464].

Note the significant expession here: The mohajirs 'transferred their allegiance to communism'. Let us just dwell on this for a moment. What had Roy expected and wanted from fanatical religious youth who, he was convinced were not even nationalists? All that he did was to explain to them that merely driving the British out would amount to nothing unless the toiling people were liberated from their exploited position. From this the mohajir youth concluded that this could only be through a communist revolution. Something is clearly missing from Roy's account. That the idea of a communist revolution was in the air; it was there already in the stories that were told in hushed tones, that narrated how the hated landowners and rulers had been overthrown in Russia, led by a larger-than-life messiah called Lenin. Only further scholarship can reveal the extent to which the story of the revolution was acquiring a mythological character. One thing seems certain: the stories of these early years did not yet reveal communism to be a godless, irreligious creed. And for the believers of Islam, to whom the world – the Creation – was greater than any nation, the idea of a revolution that sought to transcend national boundaries may have really seemed very attractive. How else do we make sense of the wholesale transfer of allegiance that Roy talks of? The story of Tan Malaka, of the initial collaboration between the Sarekat Islam and the communists, the tale of Narbutabekov – all of them point in the direction of a conclusion that at least in the early years, conversion to communism did not involve anything more than the adoption of a new political vision of how to recast the world. It certainly did not entail the epistemological rupture, the abandonment of old ways of making sense of the world and the adoption of the standpoint of High Rationalism.

If this was the frame of mind of the muhajir-turned-communists, those at home were not from 'western educated elite' either. Muzaffar Ahmed, one of the founders of the CPI at home, has described his own situation in his pre-communist days, in his autobiography:

> I would be suppressing the truth if I were to say that I was never involved in anything communal. I used to participate in meetings and organisations raising the specific demands of Muslims. I was also a religious Muslim at that time. Even if I did not offer namaz five times a day, I did fast throughout the entire month of Ramzan [Ahmed 1981:7].

In fact, Muzaffar Ahmed further explains that later, during the 1920s, given his "the state of mind... and the thrill that was associated with the terrorist movement" it was not entirely impossible that he joined a terrorist revolutionary group.

> But there were major hurdles in the way. The terrorist revolutionaries drew their inspiration from Bankimchandra's *'Anandamath'*. This book was full of communal hatred from the beginning to the end. Its basic mantra was the song Bandemataram... How could a monotheistic Islamic youth recite this mantra? [ibid:9].

Ahmed says this even as he records his deepest respect for the terrorists (this is the term he consciously uses). Notice here that even though the monotheistic Muslim youth found it difficult to chant the Hindu mantra, he did eventually become a communist subsequently – Islam did not stand in the way. I suspect that for leaders and political activists like him, communism would have been the first station in the route to Rationalism and atheism.

Saroj Mukherjee, one of the stalwarts of the Bengal communists who joined the CPI in the thirties, also begins his autobiography with the concerns that animated some of the youth who joined the communist movement at that time.

> We wanted the freedom of the country. We wanted to usher in an arrangement wherein the people could live in happiness after driving out the British rulers. In what misery do the workers, peasants, the people of the villages and industrial areas live! We wanted an end to that state of affairs and to build a happy and prosperous country...This was the thought that we were obsessed with [Mukhopadhyay 1985: Vol I, p 7]

Clearly, the concerns that brought these youth of diverse persuasions to the communist movement were similar. They were nationalists in a different way – in the sense that they wanted the happiness of the people who constituted the majority of the 'nation', namely, the poor, toilng people. Their nationalism had nothing to with any prior 'Indian essence'. And a precondition to this happiness was the

freedom from foreign rule. Alternatively, they were religiousy inclined 'internationalists' - the Khilafatists - who once again wanted the 'revolution of the toiling masses' and therefore managed to free themselves of the narrow religious concerns for the sake of the larger cause. In other words, to them also, their Islamic allegiance presented no barrier in the transition to communism

How do we understand this transformation – an epistemological leap – from nationalism/religiosity to communism? I would suggest that in the early years, the transition from nationalism and religion did not involve any rupture. The rupture is located precisely in the transition from communism to Rationalism. As a political imaginary, communism provided the buffer between two worlds: as a self-proclaimed weltanschauung, it became the agent of High Reason and of the ideology of Progress.[12] For the moment I shall use 'communism' (with lower case c) to denote the former and 'Communism' (with capital C) to denote the philosophy.

I do not think that the straightforward dichotomy of tradition/modernity is very helpful here. For, as late as the turn of the 20th century, colonial modernity was already the condition of existence and everything, nationalism and religion included, was marked by its presence. There was no longer any 'innocent precolonial self' in existence any more. And yet there is a crucial leap involved here The communist (that is, pre-Communist) ideas of nationalism and religiosity were deeply engaged in a dialogue with tradition and the past. In a manner of speaking, they represented attempts to cope with colonial modernity from within the ground of a tradition that was already ineradicably lodged within it and therefore conditioned by it The rupture or leap to Communism meant a closure of that dialogue – a move to a ground that was firmly located within the epistemological world of western, post-Enlightenment rationalism. The communists in India, probably, did not just encounter the shift in the Comintern's position that Tan Malaka had experienced with all his being. To them the exciting story of the workers' revolution in Russia presented a picture that was very different from the one that the 'backward peoples' of Turkestan and Soviet central Asia were beginning to experience. The meaning of the revolution was differently felt within and without I am not suggesting that to the people of Soviet central Asia the revolution brought only disaster. Far from it. I am only suggesting that the different story that was beginning to unfold there was at that time not accessible to those who later became communists in India. To them the dream of a happy, prosperous and exploitation-free nation was at hand and the USSR showed them the way to it. Since the question of Pan-Islamism had already been 'resolved' by the comintern, to the Indian communists it – and the religious question in general – was already handed down as received wisdom, unlike Malaka, for whom it remained an open question having the backing of a different experience. The leap for the Indian communists therefore, was one into this worldview – not the one being defended by Malaka or Narbutabekov. How this leap became possible is a matter of further research and investigation.

I will tentatively suggest that a part of the explanation may be rooted in the ontological condition of the colonial subject – a condition shaped by a colonial modernity that was both oppressor as well as the mirror that revealed to him/her the pathologies of the precolonial past. It is within that general ontological condition that we can situate the immense appeal of a modern emancipatory project like socialism or communism which simultaneously declared its hostility to colonialism/imperialism and to the oppressions of the past. It is probably within this larger canvas that the transition to the comintern-led communism becomes possible, even though the actualisation of that possibility is a more complex process

According to Tunisian writer Albert Memmi (1965), the constitution of colonial subjectivity is marked by (a) the social and historical mutilation of the colonised and (b) what I will call after him, her cultural schizophrenia. He delineates two moments of the constitution of this subject, when he talks of two historically possible ways of realising this subjectivity. The first moment of this constitution is mimetic, for the colonised native here mimics and emulates the colonial master. For Memmi, of course, the mimicry is of a different kind, taking place as it does in the violent context of the assimilation of colonised populations under French colonialism. This may also happen, I will suggest, by way of the colonised subject defining her political project of emancipation in terms of the larger theoretical and epistemological criteria of the west, in terms of its philosophy and its achievements as the embodiment of progress and modernity – what Partha Chatterjee has called the Thematic of nationalism. It may also happen in a second, more subtle way of the native/colonised subject recasting her/his own religious/spiritual apparatus in order to summon it to provide the ethical and therefore epistemic, justifications for redefinitions of Selfhood and enable it to play a new political role.

The second moment of this constitution is actually already beginning to emerge in the above description – that of the assertion of their difference. For, this could never be based on the complete rejection of the Self. Even the former category of responses, represented by the modernists who celebrated the idea of the eventual triumph of Reason and Science, were responses from the same ground as that of those who seemed to entirely reject the west. What attracted them to ideas of socialism/liberalism was the idea of a modern India that was not merely politically independent but also free of social oppression. Where the two differed and parted ways was the way in which they assessed the strengths of the colonial power and what they considered crucial to their sense of Selfhood – in other words, what they considered the indispensable and the relatively discardable aspects of their tradition. For those who privileged the west's achievements in material, scientific and modern terms, the road to salvation lay to a large extent, in the first option pointed out by Memmi. The communists clearly, would fall in this category On the other hand, those who thought that the west's political and armed might was the key to its strength, also sought to masculinise and militarise their own 'religion' (like a Vivekananda or in a different way, a Savarkar or a Golwalkar), while holding on to the notion that it was still spiritually superior to the Europeans The reasons why different social groups and sections made different choices have deeper historical reasons, which we can hardly go into here. Suffice it to note that there was no essential Indian Self and different people understood their 'Indianness' in radically different ways. One of the key mediating factors was the attitude the players held towards the violence and oppression of the old order and the stake each of them had in precolonial social arrangements. The caste oppression of the brahminical order for instance, ensured that the entire range of backward caste and dalit leaders did not take the second option. To them the old order was an unmitigated evil that had to go. This circumstance itself was what made all the difference. In Europe and the west, the ideas of the philosophes of the Enlightenment were rooted in the struggles within their respective societies and so the choice was a more straightforward one between the old and the new. In India and much of the colonial world, the rejections of past

violences went along with the need to redefine the Self in relation to a set of new ideas that were tied to the west that was actually colonising it.

In the context of Indian communism, it is this that provides the key link. The assertion of the universal condition – "All men [without markers] are born free and equal" – becomes the basis for challenging the indigenists/revivalists who claim a special status in the name of their difference and who seem to be wanting the freedom to revive a hated past. The transition from communism to communism takes place in this context. It may be worthwhile to study the specific contexts in which the early communists, much like the early social reformers and the leaders of the 'backward classes', found a more secure ally in the modern liberal/socialist doctrines coming from the west

What further complicated the situation in the context of the Indian communist movement was that it became totally unreflexive by virtue of its complete dependence on the Comintern and the Soviet Union, not merely for its ideological-theoretical nourishment but also its organisational co-ordination. The problem, it seems, is not where a particular idea is born but whether it has the capability to adapt to different conditions which, I have been arguing so far, was the case with marxism but which was precisely the casualty of its canonisation.

Muzaffar Ahmed narrates how the work of the CPI began at four different places – Calcutta, Madras, Bombay and Lahore – in the country around the same time. "It was not as if the initiators met and decided to start work ..In each place it started independently. They did not even know each other." He goes on to explain how in these circumstances, and given the large distances within India, each of these four groups maintained separate/independent contact with the Comintern [Ahmed 1981:62].

Symptomatic of the control of the Comintern over the Indian Communist Party was the first Manifesto of the Party – titled "Manifesto to The Delegates of the XXXVI Indian National Congress". The document was written and printed in Moscow by M N Roy and approved by Lenin and Stalin. It is interesting that the people who drafted and approved the document had no day to day touch with the movement in the country. Mikhail Borodin had gone to Madrid to attend a conference and brought with him a pile of Indian papers for Roy, who submerged himself in them to eventually produce the document. The Manifesto is full of unsought advice to the Congress. It further displays the most elementary lack of political sense in that it shows no appreciation of the dynamics of political dialogue: why should the delegate to the Congress session take this unasked for bit of advice seriously when they do not even know, let alone trust those who are handing it out? The tone of the advice is often derisive in the extreme. For instance, it says: "Several thousand of noisy, irresponsible students and a number of middle class intellectuals followed by an ignorant mob momentarily incited by fanaticism, cannot be the social basis of the political organ of a nation."[13]

On the positive side, the document does try to expose the 'freedom first' argument by emphasising that there can be no genuine freedom without the toiling people and their demands figuring centrally in the movement. But then the document proceeds:

> How can the Congress expect to arouse lasting popular enthusiasm in the name of the Khilafat and by demanding the revision of the treaty of Sivres? The high politics behind such slogans may be easy for the learned intellectuals...but it is beyond the comprehension of the masses of the Indian people who have been steeped in ignorance not only by the foreign ruler, but by our own religious and social institutions...Their consciousness must be aroused first of all. They must know what they are fighting for.

In the event, of course, it was clear what the masses understood and what they did not, who in their perception, was talking 'high politics' and who was not? The document is therefore, more important because it completely failed to understand the meaning of what it called 'high politics' and 'abstract idealism'. For instance, it says:

> The programme of the Congress has to be denuded of all sentimental trimmings; it has to be dragged down from the height of abstract idealism; it must talk of the things indispensable for mortal life of the common human being.. the object for which the Indian people will fight should not be looked for somewhere in the unknown regions of Mesopotamia or Arabia or Constantinople...

Recall Malaka's lament that "with their hearts they remain with the Sarekat Islam – with their heaven which we cannot give them". The inability to understand the meaning of the peoples' heaven, the construal of all spirituality/religiosity as ignorance is centrally linked to the epistemological leap into the world of post-enlightenment rationalism. I must emphasise that I am not talking of communists not being religious but simply of being unable to understand the world of those who are religious. In other words, I am talking of the closure, the diremption entailed in this leap. If they could not understand the religious mind, nor could they understand the force of nationalism. I will not go into the details of that aspect as that has been written about in fair amount of detail.[14] It is also idle to argue about whether involving the Khilafat sentiment was a correct or an incorrect move on Gandhi's part. Surely its correctness or otherwise cannot be judged on the basis of purported outcomes. In any case, what I am underlining is the crossing of a particular epistemological threshold on the part of the communists.

That the influence of the Comintern was not simply ideological, made matters worse. The minimum autonomy that the Indian communists displayed was also repeatedly undermined. Muzaffar Ahmed, a devoted follower of the Comintern line narrates an incident which is illustrative. In a conference held in 1926, one of the items on the agenda was the change in name of the Labour Swaraj Party. In his words: " It was decided in the deliberations of the conference that the name of the Labour Swaraj Party would be changed to 'The Bengal Peasants' and Workers' Party'. Some of us present in the Krishnanagar Conference did not however, raise the issue that as a class the workers' name should come first. There would have been no use raising the issue before the 'praja' and 'krishak' [tenant and peasant] representatives. We said that in the tradition of usage of words in English, Workers' should come first, as there are less letters in this word. .Our argument was not accepted by a majority of the delegates" [Ahmad 1981:340]. The frivolity of the argument reveals the pathetic state of mind in which this proposal may have been put forward. In the third conference of the PWP of Bengal, held in Bhatpara in March 1928, the Communists managed to get the English name of the party changed to Workers' and Peasants' Party but the Bengali name remained what it was [ibid:348].

There can be no other explanation for this desperate behaviour except fear – the fear of ridicule and disciplinary action by the Comintern. If Ahmed himself did not feel compelled to press for a change of name at the Krishnanagar conference because it would not have cut ice with the peasant delegates, what else was the desperation about? Marxist orthodoxy decreed that there could be only one party

to a class. Only the Communist Party could represent the working class and only one class could be represented by any party. What then was this business of two-class parties? The mystery is uncovered many many years later, in 1960, when Muzaffar Ahmed writes to Clemens Palme Dutt, through his brother, Rajni Palme Dutt to seek some clarification regarding the expulsion of M N Roy from the Comintern. "As regards Roy's expulsion..." replies C P Dutt, "(B)y the end of 1927, Roy had already come under heavy criticism for his policy in China...Then came his discrediting in connection with India. Apart from the decolonisation theory, he was attacked, firstly because he had given exaggerated reports about the strength of the Communist Party of India and his influence there and, secondly, because he was attempting to build a Workers and Peasants Party as a kind of alternative to the Communist Party...Roy answered the criticism that it was wrong to form a political party on a 2-class basis by saying that what was required in India was not merely a 2-class party but a multi-class party" [ibid: 402].

Characteristically, Ahmed, even while publishing this damning letter refused to draw the conclusion that he ought to have in his memoirs. After all, it is abundantly clear from his accounts that the formation of the PWPs and the WPPs were no conspiracies hatched by Roy; all of them, including Ahmed believed in the need for forming them and in my view, rightly so. The subsequent dissolution of the WPPs can now be seen in perspective. It may not be entirely out of place to mention that with the accession to power by Hitler and the turn in the Comintern's line in 1935, in its Seventh Congress, when the world-wide tactical shift was towards formation of United Fronts, Indian communists were to see sermonising in a very different direction. The well-known 'Dutt-Bradley Thesis' authored by R P Dutt and Ben Bradley of the CPGB, directed the formation of a mass anti-imperialist front – in fact of the transformation of the Congress itself into a multi-class party!

The glimpse of the Indian communist movement that we see here gives a diametrically opposite picture from the Chinese one, particularly the phase after the ascent of Mao. The history of the Chinese Communist Party before that phase is also of course replete with instances of sharp struggle against the disastrous attempts to impose the Comintern's line. The struggle against what was known as the group of 28 Bolsheviks or the 'Returned students' (i e, returned from Moscow) *has been officially recognised by the CCP. Mao himself has said on occasion that the CCP could make the Chinese revolution successful by going against the* wishes of Stalin.

What the above discussion highlights then is something more than mere centralisation of command within the Comintern. The suppression of local initiative goes hand in hand with the hard choice that the communists of the colonial world were presented with: a choice between two epistemological worlds. It was a choice within which is located the final leap of Indian communists. It would however, be an oversimplification to say that force alone was responsible for this transformation. There is an elaborate mythology through which the hegemony of the Comintern is established. This mythology has a peculiarly theological structure where the world is divided between believers and non-believers: "Those who are not with us are against us". The fear of excommunication is as strong within this world as it is in any other religion. In the event, the canonisation of faith has all the other attributes that go with religion: a set of sacred texts, a pantheon of gods, a Papal authority and the mythology that sustains the faith. Reason is finally sublated into its opposite and in a typically Hegelian 'auhfebung', if there ever was any, a synthesis of the rationalist religion occurs. It is the stranglehold of this mythology to which even Mao submits in the end, when he makes his existential choice of remaining within the fold of believers – his constant fear of becoming another Tito, recurrent in so many of his writings and speeches ensures this choice.

VI

In conclusion, I would like to draw attention to one of the first footnotes of Marx's doctrine – written by Marx himself and all but erased by his followers. I am referring to Marx's correspondence with Vera Zasulich – the Russian Narodnik-turned-Marxist. In 1881, Teodor Shanin tells us, Marx spent three weeks agonising over a reply to Zasulich's letter, during which he wrote four drafts puzzling over the issue of the Russian peasant commune. He tried to understand the decline of the peasant commune not as an absolute law of history but as a historical contingency [Shanin 1983:13-147]. Recovered after his death, it was sent by Engels to the Group for the Emancipation of Labour (of which luminaries like Plekhanov and Zasulich were members) for publication. After a long silence of seven months, they replied to Engels saying that they would publish it once they got it translated into Russian. They never did. Finally it was published in 1886, in *Vestnik Norodnoi Voli* (Vol 5). The only positive response to the letter, the Japanese scholar Haruki Wada informs us, was from among the Populists (Narodniks). They were discovered, according to Wada, in 1911 by D B Riazanov who with Bukharin's help managed to decipher them in 1913. One full decade later they were again discovered accidentally by a Menshevik called B I Nikolaevskii and published in 1924. In 1926, Riazanov published them separately [ibid:41-42]. Writing as the defender of what was already a canon, Riazanov said that the letter and its drafts represented a decline in Marx's scholastic capability [ibid:42]. Both Wada and Shanin have documented in detail, the turmoil that Marx was undergoing and the small but significant changes he was making in fresh editions of his earlier writings. In the French edition of *Capital* published in 1875, for instance, he deletes one paragraph on primitive accumulation that says that in different ways, the same process is going on in different countries everywhere. The new passage restricts the scope of his theoretical generalisations to western Europe [ibid:48-49].

It is this passage from the French edition that Marx quotes from in the letter to Zasulich and remarks: "Hence the 'historical inevitability' of this movement is expressly limited to the countries of western Europe" [McLellan 1977:576]. Following the outbreak of the Russo-Turkish War sometime in 1877, Marx wrote to F A Sorge:

> This crisis is a new turning point for the history of Europe. Russia...has for a long period been on the brink of revolution. All the factors for this are already present...The revolution this time starts from the east, that same east which we have so far regarded as the invincible support and reserve of counter-revolution" [Quoted by Wada in Shanin 1983:55-56].

In other words, the canonisation of Marx deprived later marxists of the most crucial insights that could be had from the way in which he was grappling with 'the problem of the east' – for which we had to wait for the Leninist and Maoist moments of reformulation of theory. The critical spirit of Marx that is repeatedly in evidence throughout his life and seen in this dramatic episode, was the first to be killed. In order to preserve the canon and the icon Marx, the critical philosopher had to be killed first. The reconstitution of the com-munist self began with the (re)construction of Marx.

Notes

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1 As will be seen, my use of the term is very different from certain fashionable usages in the vast and burgeoning literature on 'postcoloniality' in literary and cultural studies, which valorise so-called hybridity and the domain of the third world diasporic intellectual - the 'migrant-as-exile'.

2 I take the expression from Abdel-Malek *Nation and Revolution: Volume 2 of Social Dialectics*, The Macmillan Press, London and Basingstoke, 1981, whose work I will keep referring to in this essay. This idea has also been used by Cuban communists in their notion of the 'Tricontinental'. The three continents are of course, Asia, Africa and Latin America.

3 I must state that in saying this I do not mean to reduce the entire history of marxism to this phenomenon, but that it is this aspect of this marxism, that concerns us here.

4 There is need to define the subject 'us' here. There are two senses in which I use the word. To the extent that my examination of marxist ideology is both, a specific way of interrogating the larger universalistic radical project as well as the ideological project of modernity whithin which we are all willy nilly implicated, this we/us represents both the modern subject in its abstractest sense and the radical dissenting currents within it. As I will argue, I believe that no radical vision in contemporary society can pretend to be untouched and unshaped by marxism. Hence also, the unabashed use of the terms 'we' and 'us'.

5 I am aware that the canonised versions built on certain resources that already existed within 19th century marxism. However, this was not the inevitable direction marxism ought to have taken – after all, at any point, there are multiple possibilities of future advance.

6 It is not my intention to go into the type of argument that Aijaz Ahmed (*In Theory – Classes, Nations, Literatures*, Oxford University Press, Delhi, 1994) makes against Edward Said, in defense of Marx. Ahmed's project is, I believe, fundamentally different from mine, for he seeks to reaffirm the purity of marxism and defend the Orthodoxy against all kinds of perceived 'attacks'. The purpose of his strident defense is the mere reiteration of faith among a fast dwindling sect, the shrillness of whose rhetoric is in direct proportion to the shrinking of its ground outside. In his polemic with Said and others, Ahmed repeatedly underlines that this assertion of the Oreintalist trappings of Marx's writings are 'based almost always on that same passage...' (p 14, for instance). The passage in question is from Marx's articles on India – "his journalistic observations" as Ahmed puts it, about colonialism being the unconscious tool of history. I have therefore, used very different passages and quoted from scholars who too, do not depend on a single isolated passage.

7 The disparaging tone in which a defender of orthodoxy like Ahmed talks of the 'metropolitan Left' can surely leave no doubt that marxism (the pure and pristine one) is passe there. The hopes of many western marxists too rest on the marxists of the Three Continents.

8 This, one would have thought, is historical materialism at its best.

9 Ibid, p 249. Claudin depends for most of the documentary evidences on the best source so far available on the issue, namely, Carr'e re d'Encausse and Stuart Schram (1965) *Marxism and Asia*, Allen Lane The Penguin Press. I have used both but most references here are to Claudin.

10 Ibid, pp 315-16. The reference to the dogmatists is to the section within the Chinese Communist Party which wanted to mechanically replicate the Comintern's line.

11 Rajeev Bhargav has drawn my attention to the fact that this too was not the 'real' Hegel, but the Hegel seen through the lens of 19th century marxism.

12 I am emboldened to make this provocative claim drawing on the very contemporary experiences also. The lived marxism espoused by the millions of cadres and followers of the communist parties in India even today, is no more than the political imaginary of communism, which they believe was wrecked due to wrong practices but which still retains its attraction, precisely as an imagined future. This has nothing to do with the High Theory of marxism propagated as 'weltanschauung' and as philosophy, in party journals.

13 The document is reproduced in Muzaffar Ahmed, op cit, all quotations from CPI documents, unless other wise mentioned, are from this text.

14 For a recent account, the interested reader may see Sanjay Seth, *Marxist Theory and Nationalist Politics – The Case of Colonial India*, Sage Publications, New Delhi, 1995.

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Urdu in India since Independence

Ralph Russell

What ails Urdu in India today? It is government apathy as much as lack of private, non-government action. While the elite proponents of Urdu wait for somebody else to do something about the promotion of Urdu, there are many things which individuals or small groups can do. Those who love Urdu need to shake off the feeling of persecution and use the factors that work in favour of Urdu.

THE link language of everyday communication in India continues to be, as it was before independence, one which is as much Hindi as it is Urdu. It is true that since independence the government has shown apathy and worse towards Urdu. But the proponents of Urdu focus almost exclusively on the injustices done to Urdu. They too often call upon somebody else – such as the government – to do something instead of doing it themselves. They have failed to take advantage of factors that favour Urdu. The defence of Urdu requires an increase in the number of people who have a command of it. The first step is education. But one need not depend on government-run Urdu medium schools. Those who have a command of Urdu can start teaching it in their own neighbourhoods. Confining Urdu to the Persian script also works against its spread. There is a large readership for Urdu works written in Devanagari script and also for Urdu works introduced through English.

In 1949-50 I spent the greater part of my study leave at Aligarh.* In those days, in the area regarded as the heartland of Urdu, UP and to a lesser extent Bihar, the state governments were doing everything possible to destroy it. This was achieved by an absurd interpretation of the 'three language formula' devised by the government of India. This recommended that in every state three languages should be taught in the schools - (1) the language of the state (which would normally be the mother tongue of the majority of its inhabitants) (2) another modern Indian language (Hindi would often be chosen where the first language was not Hindi), and (3) one other language. A good deal of elasticity was envisaged in the implementation of this formula, and in UP Urdu, the language of most inhabitants of UP after Hindi, could, and should, have been chosen. The UP government decided instead to declare Sanskrit a modern language, and the teaching of Urdu in the schools – it had been taught in all UP schools before independence – was discontinued. On the whole that situation has continued ever since, at any rate until fairly recent times, when I understand some minor changes have taken place in the situation. In the first years of independence the main reliance of those people in the Urdu field who wanted to preserve Urdu as far as it could be preserved, to allow for its development and to counter the policies being pursued against it was to rely upon the sympathies for Urdu that existed at the level of the government of India. Nehru, who spoke Urdu well, was in favour of doing something to support it and was opposed to the policies of the UP government; but the centre was not in any position to dictate the course which UP government should follow, and the best it could do was to provide funds and other support for organisations manned by the supporters of Urdu.

Let me consider the measures taken by central government over the last two decades or so. The government of India, at any rate from Indira Gandhi's time onward, had its own reasons for doing something to support Urdu. There were political considerations motivating this, which did not necessarily have much to do with sympathy for Urdu. A committee was set up in 1972, headed by I K Gujral, to consider how the cause of Urdu could be advanced. The report of the committee, which amounted to more than 250 pages, was presented in 1975 and 187 recommendations were made. This report was 'put on ice' and the main reason for this was the vigorous opposition of Jagjivan Ram to anything being done for the cause of Urdu and Indira Gandhi's desire not to alienate him in the political situation which obtained at that time. However, in due course the Gujral report was laid before parliament. Then, successively, two committees were set up to look once more at the situation of Urdu – one headed by Ale Ahmad Suroor "a sub-committee to examine the recommendations of the...Gujral Committee" (set up in 1979; reported in 1983) and one headed by Ali Sardar Jafari (set up in February 1990; reported, with unusual promptness, in September 1990). The Jafari committee discovered that 95 per cent of the recommendations made in the Gujral report had not been adopted. The state government of Bihar, and shortly afterwards that of UP, recognised – on paper – Urdu as an official language of their respective states.

Som Anand, in an article written in 1992 says that quite substantial financial support was given to Urdu, but that the situation in the Urdu-speaking community was such that it had not been able to make proper use of the support which was given. He says the government of India makes considerable efforts to help the Urdu press, but the Urdu newspapers are in no position to derive any benefit from this. The United News of India (UNI), at the instance of the government of India, decided to start an Urdu teleprinter service for the newspapers with a grant of several lakh rupees from the government. The UNI offered this service to 40 Urdu newspapers, but this offer has not yet been taken up. But this is not the only difficulty. To get such a service operating, you need good translators, and these are not available. The fact is that the new generation of Urdu speakers has grown up at a time when Urdu is not taught, so how could you expect to find young people who know Urdu well? And on top of that, in the so-called Hindi area of northern India, the standard of education in English has also declined very considerably. The result is that Urdu translators who are employed by the Urdu newspapers know neither good English nor good Urdu.

What could individual Urdu speakers or small voluntary organisations formed by them have acted to combat the dangers that Urdu was facing? One thing that they could have done was ensured that their own children learnt to read and write Urdu. If the schools were not providing for their education, the parents themselves could have provided it, and by and large they did not. Even in Urdu-speaking families people who were generally devoted to Urdu and whose children were also interested in Urdu, had not taught their children to read and write it. Urdu for them was simply the language of the home. Many of them enjoyed Urdu poetry; they would go to mushairas and most of them could

* I am a lecturer in Urdu at the School of Oriental and African Studies in the University of London. I have been in India on one-year study leave three times, the last of which was in 1965. During these I had an opportunity to observe at close quarters what was going on in the world of Urdu. My other sources are newspaper articles and correspondence with people connected with the promotion of Urdu.

understand what was being said. I remember seeing a young relative of the late Habibur Rahman writing down in Devanagari script Urdu verses which appealed to her. On another occasion I met Ismat Chughtai. She told me that her daughter could not read and write Urdu. So one asks the question, why not? Why didn't the parents make sure that their children could read and write Urdu? It seems to me that whatever the difficulties, it was, and is, primarily the responsibility of people who love Urdu and Urdu literature to arrange for the teaching of Urdu and Urdu literature themselves. They could and they should do that; and if I am not mistaken, they are not doing it.

It should be obvious that the basic thing that needs to be achieved for the defence of Urdu is a considerable increase in the numbers of people who have a command of it, not simply Urdu colloquial speech, but the Urdu which enables one to read and appreciate Urdu literature. Anyone who is concerned with increasing the numbers of people who are competent in Urdu can do something practical about it without any external support at all. In many immigrant communities in countries like Britain people want their children to acquire a much better knowledge of what some people call their heritage language than is provided for in any official provision in the schools and the educational system. They act accordingly. That is, they themselves set up classes, hire rooms or meet in suitably sized rooms in their own houses and impart some instruction to their children. And there is absolutely no reason why Urdu speakers in India shouldn't do the same.

Obviously, there are some spheres in which nothing very substantial can be done by individuals or small-scale voluntary organisations. There are bodies established in the states and at the all-India level to promote the cause of Urdu.

It seems to me that in order to make a fair assessment of what these bodies have done – or failed to do – we need to know a great deal more about them. The questions I would like to ask are: what is the extent of government funding; what is the constitution/terms of reference; who are the members of its governing body, and how are they chosen; does it issue regular reports of its activities, if so, how often, if not, are there informal accounts of its work available.

I learnt through correspondence in 1996 with the chancellor of Jamia Millia that "[Anjuman i Taraqqi i Urdu] is not entirely dependent on government funding. It gets a government grant of Rs 1.30 lakh annually from the Delhi Administration Its income from rent of its own multistoried 'Urdu-Ghar' is more than sufficient for its needs. It has a general body of 40 members and elections are held every five years. I doubt if they have any regular system of reporting to government." He also wrote that the "[Taraqqi Urdu Bureau] is entirely dependent on government funding. Reporting to government does not appear to be regular. The Bureau is passing through a 'retiring' phase."

As I wrote in an article in the *Indian Review of Books* (September 15-November 15, 1995), one of the most disappointing features of the picture is the idleness and ineffectiveness displayed by those who have seen themselves as the trustees and leaders of the Urdu-speaking community. Substantial resources were from very early days made available by the central government to organisations established to support and promote the interests of Urdu. But the record of these organisations is a far from impressive one. In 1949-50 I spoke personally to some of those who sat on the governing body of the Anjuman i Taraqqi i Urdu and urged them to draw up a coherent plan of activity and proceed to implement it.

One thing I drew attention to was the fact that we did not have good, accurate texts of even the greatest Urdu classics. I gave them the example of the Oxford Classical Texts of the great Latin and Greek authors, saying that the sole aim of those who prepared these texts was to publish as accurate a text of each author as it was possible to establish. If the Anjuman i Taraqqi i Urdu did nothing but that, it would be an enormously valuable service to the cause of Urdu. Twenty years later its total achievement in this field was the publication of one such text, Imtiyaz Ali Arshi's edition of Ghalib's Urdu verse. There were other ambitious projects allegedly started but never proceeded with, or, if proceeded with, never completed: and work done in connection with these projects which could and should have been published without impairing the success of the projects as a whole, never appeared.

I well remember a conversation I had with Ale Ahmad Suroor in 1965. I urged that a plan to publish all of Ghalib's writings in good, reliable texts should be initiated at once so that these could appear in the centenary year, 1969. All that did appear was a disgracefully produced reissue of a volume of Ghalib's letters first published in the 1930s. In the same conversation he told me that he had received a glossary of the vocabulary of Nazir Akbarabadi, which he had asked Maikash Akbarabadi to prepare. I said, "Publish it now. It can still be used as material for the full-scale Urdu-Urdu dictionary you are planning". He rejected the idea. And 30 years later we have neither a full-scale dictionary nor the glossary. I was told in later years that Maikash's glossary had been lost.

Rashid Hasan Khan, in an interview with Ather Farouqui says:

> The Taraqqi Urdu Board [Bureau] long ago planned to produce a comprehensive Urdu dictionary in four or five volumes. Some extremely famous people...[who?] were chosen for this task and one volume was allotted to each. For years together regular payment was made to these people, and each was given an assistant. Years later it was learnt that work on the dictionary had not been completed. When the time came for them to render account of what they had done, these revered gentlemen returned their materials in the same state as they had received them...no work is now being done. There is an urgent need for an Urdu dictionary, but after 10 years of continuous effort the Taraqqi Urdu Board has to this day not been able to compile one...Granted, a concise dictionary has been printed. I read it...and found not a single page in which there were not one or two mistakes of one kind or another. The University Grants Commission made a plan for a history of Urdu literature in four substantial volumes. An appropriate grant for this purpose was given to Aligarh Muslim University. At first the University prepared an excellent plan, and the details they presented convinced me that this history of Urdu literature would be a work of really high quality. Nine writers, all of them very well-known and highly regarded, were involved in the project. The first volume was to cover the period from the 12th to the 17th century AD. When the first volume appeared I read it – and you cannot imagine my astonishment...All its references were completely unreliable, nor could one rely on the accuracy of the passages quoted. I wrote a detailed review of it at the time...This was reproduced in a number of periodicals and was much talked about. As a result all copies of this first volume were taken off the market and piled up in Aligarh, and a statement was issued that it would be corrected and then re-issued. To this day no corrected edition of the first volume has appeared, and neither have the remaining volumes (*Akhbar i Nau*, December 2-8, 1988).

Atiq Ahmad Siddiqi tells us in his article 'Status of Urdu in India' "the [Taraqqi] Bureau for the Promotion of Urdu set up by the central government has brought out about 700 useless books; most of them are translations. Similarly, Sahitya Academy and National Book Trust, both government organisations, have brought out a large number of useless Urdu books (*The Nation*, Lahore, October 4, 1993). Later in the article he is similarly critical of the

Urdu academies that were established in many states and which have been "rendering so-called useful services".

Shamsur Rahman Faruqi in his interview with Ather Farouqui says that teachers at the university level started a retrograde strategy to save their jobs. Urdu teachers convinced university authorities that since enrolment in Urdu was dwindling seriously, it was necessary that even those students who did not read Urdu at any level whatsoever, or inferior students, should be granted admission if they wished to study Urdu as a subject in BA or MA This resulted in the intake of incompetent candidates as Urdu students. These incompetent people, having obtained their degrees, joined the Urdu departments as teachers. "Then followed the illiterate line of students taught by these illiterate teachers. It seems that now this phenomenon of generations of illiterates after illiterates will never come to an end" (*The Nation*, Lahore, July 8, 1994).

Not only did the champions of Urdu fail to do what they should have done on their own initiative, they failed to do what they had promised – and what they had been paid – to do. To crown it all they themselves took active steps which in Shamsur Rahman Faruqi's words "proved very harmful for Urdu". I think it regrettable that Rashid Hasan Khan does not name all the distinguished people whom he characterises in harsh (and fully justified) words. These people do not deserve the protection of anonymity – they need to be thoroughly exposed.

I am well aware that dissatisfaction with the role played by bodies like the Anjuman i Taraqqi Urdu and the Taraqqi Urdu Bureau commonly leads people to wash their hands of them In that this leads to the formation of organisations that make it a policy to refuse to accept government funding and free themselves of all obligation to governments and their policies. This dissatisfaction is welcome. Such completely independent organisations are indeed necessary The Maulana Azad Research and Educational Foundation was one such. I learnt from a letter that "the Maulana Azad Foundation was registered in 1989...From the very first day it has been our policy not to accept any kind of help from the government of India, so that government policies cannot influence us either directly or indirectly To continue the work of an organisation run on these principles is extremely difficult, but we are putting up with all such difficulties... The Muslims of Sikandarabad are the sole source of our funding" Another letter said, "From the very outset it was resolved that the members of the Foundation would not accept employment by the government of India, would not accept membership of any governmental or non-governmental committee and would not establish any relationship, direct or indirect, with the government of India. Members would not accept any financial assistance from the government of India, or any grant, or any prize. They would also as far as possible try to abstain from taking part in any seminar or mushaira connected in any way with the government of India. As far as possible they would refrain from publishing anything they write in Urdu periodicals partly funded by the government."

The foundation has also been running two Urdu medium junior high schools in Sikandarabad. The only other Urdu schools in UP are run by the Aligarh Muslim University. In these two schools both Urdu and English are available as the medium of instruction, and most parents choose the English medium for their children, although the level of proficiency in English of these children is such that this is an intolerable burden for them, even though the level of English used is extremely low. In short, Urdu medium is at its last gasp in both these schools and within a few years this so-called Urdu medium will cease to be used.

Ather Farouqui writes in an article in the *Economic and Political Weekly*: "At a few places Urdu medium primary schools are run by local bodies where teachers were appointed...Most of the people appointed...the so-called Urdu teachers, generally do not even understand what is meant by the term Urdu medium... Therefore, in UP, Urdu education means teaching Urdu as a subject. It is unfortunate that few of the so-called Urdu teachers in UP can even read the books in Urdu script meant for primary classes. It has also been observed that the Urdu teachers in UP are engaged in their family occupations like agriculture and milk dairies and go to the school once or twice a month."

Dissatisfaction with government-sponsored organisations is justified, and the setting up of independent bodies to defend Urdu and assert and campaign for its rights is a welcome development. But it should by no means follow that no further interest should be taken in government-sponsored initiatives. If associations and bureaus and academies set up to advance the cause of Urdu are not doing so satisfactory, this needs to be said in organised public criticism of them, and, even more important, plans of activities which they should be carrying out need to be worked out, and widespread campaigning initiated and sustained to press these bodies to adopt these plans. It follows that bodies like the Maulana Azad Foundation should similarly have a coherent programme of activities which they should publicise, and for which they should enlist practical support on as large a scale as possible. The same applies to approaches to the government of India.

The protagonists of Urdu seem to me all too often to call upon somebody else to do something instead of doing it themselves, and that there is a historical background to this attitude, formed in the centuries when Muslims constituted the ruling elite of India. Shamsur Rahman Faruqi, who is himself a member of the UP Urdu-speaking elite strikes a rare – and welcome – note when he says in his interview (in English) with Ather Farouqui published in the Lahore paper *The Nation* on July 8, 1994: "The Muslims of Uttar Pradesh...have a sense of superiority, which I consider quite stupid really...The UP *sharifzada* will never do for himself anything that he can command, persuade or cajole anyone else to do for him."

There is a proposal that the teaching of Urdu should be taken on as one of the main tasks of the religious foundations, the madrassas and so on, which are primarily established for the imparting of Islamic learning. I do not think that there is any point in this at all. In the first place, why should the job be handed over to other people. The champions of Urdu are looking for someone else to do work which they ought to be doing themselves and which they are not doing. In the second place, there never has been the least evidence that these organisations are interested in the teaching of Urdu, or at any rate in teaching it to any very worthwhile level. These madrassas have functioned continuously both before independence and throughout the whole period since independence and not one of them has ever shown the least interest in teaching Urdu to the level which would introduce their students to Urdu literature. They are concerned with religious questions and only with religious questions It is not in the least likely that they will undertake this task on anything like a large scale. As far as my experience goes there is no reason to assume that the attitude of the teachers in religious institutions has changed much since the time of Ashraf Ali Thanavi when, almost a hundred years ago now, he wrote *Bahishti Zevar*. He has a chapter in Part Ten in which he lists all the kinds of books which women should not read. But two things have to be said about that. Firstly that we want women to be able to read everything that men can read. Secondly, the disapproval of the kind of literature which Ashraf Ali Thanavi, censures obviously extends to the literature which men read. In *Bahishti Zevar*, he lists among other books that should not

be read: "divan aur ghazalon ki kitaben" "divans and books of ghazals" – in other words, virtually the whole of Urdu poetry and certainly that part of Urdu poetry which is the most valuable; the *Indar Sabha*; the story of Badr i Munir, that is the story of the masnavi of Mir Hasan; *Dastan i Amir Hamza, Gul i Bakavali* and other books. To expect people who are dedicated to religious teaching to teach people to read some of these best works of Urdu literature seems to me quite unrealistic.

I come now to what I think the protagonists of Urdu should do. I do not object to them saying that other people, like the government of India, state governments and so on, ought to be doing this, that or the other, and should be pressed to do so. I do not object to them saying that we should try and get teachers in religious institutions to take up Urdu. I do not object to these things, but they should pay far more attention to what they themselves should do, regardless of what other people are or are not doing. There are some important activities in which all protagonists of Urdu need to engage themselves and all others whose support they can obtain. One such is the production of Urdu materials in the Devanagari script. It would be extremely helpful to people who know Urdu but who cannot read the Urdu script and to the cause of Urdu generally if Urdu teaching materials and works of Urdu literature were published in the Devanagari script.

All organisations – government-sponsored and voluntary – ought to consider the implications for them of the fact that many Urdu speakers know Urdu but do not know the Urdu script. They are anxious to read Urdu, but they can only read it if Urdu literature is presented in the Devanagari script. In my opinion it should be entirely within the remit of the government-funded organisations to produce texts of important and popular Urdu authors in Devanagari script. They should not wait for other people to do this. If they are concerned with the advancement and promotion of Urdu they should provide for the needs of those Urdu lovers who know Urdu and want to know more about it and to be able to read more of its literature, but do not know the Urdu script.

Publications of Urdu works in the Devanagari script, of course, serve a wider audience than that which I have just described. They serve the audience of Hindi speakers who do not know Urdu but are interested in what Urdu literature has to offer. I think that Hindi speakers offer the next most favourable audience for Urdu literature after that of Urdu speakers themselves. True that there are people – *some* people – in the Hindi speaking community who are the most vociferous opponents of Urdu, but it would be a great mistake to think that all Hindi speakers share their attitude. There are among Hindi speakers substantial numbers of people who do not want to make Urdu their first language, but are nevertheless interested in getting access to what Urdu literature has to offer. This is proved by the number of publications of Urdu works issued by Hindi publishers in the Devanagari script. Quite numerous selections from popular Urdu poets are being published by Hindi publishers. I know that in her later years, according to what she herself told me, Ismat Chughtai could always find a publisher for her stories in Devanagari before any Urdu script version was published. And Muhammad Umar Memon of the University of Wisconsin, US, tells me that almost all of Manto's works are now available in Devanagari. My experience is that champions of Urdu are for the most part simply unaware that this is going on and even if they are aware they take an attitude towards it more or less of indifference – and they certainly should not.

Already in the early 1950s there was a multi-volume publication called *Sher-o-Sukhan*. This was a comprehensive selection of Urdu poetry presented in the Devanagari script with, at the bottom of the page, explanations in Hindi of the meanings of Urdu words which the editors thought their readers would not otherwise understand. A periodical published in Allahabad, *Urdu Sahitya*, presented contemporary writing in Urdu in the Devanagari script and with explanations of difficult words. An anthology of Urdu verse in English was published in 1995. This is a bilingual book with Urdu text on the left-hand page and the English translation on the right-hand page. At the suggestion of the publishers Urdu text is presented in the Devanagari script. Again this is clear evidence that there are more people who want to read Urdu poetry in Devanagari script than in the Urdu script. *Masterpieces of Urdu Ghazal from the Seventeenth to the Twentieth Century* published in 1990 gives the Urdu text in the Urdu script on the left-hand page and on the right-hand page an English translation and then a transliteration or transcription of the Urdu text written in roman letters. There are two other collections – *Masterpieces of Urdu Rubaiyat* and *Masterpieces of Urdu Nazm*.

Rahi Masum Rasa in a stimulating interview in *Akhbar i Nau* (February 9-15, 1990) said that unless the classics of Urdu literature were published in the Devanagari script they would cease to exist for future generations. He also said that Urdu speakers should discard their traditional script and adopt Devanagari instead. My own view is that there should be no compulsion to adopt the Devanagari script, but equally there should be no opposition to those who choose to do so. Every support should be given for publication of Urdu works in Devanagari as well as in Urdu script editions.

Adoption of Devanagari was also one of the recommendations of the Gujral Committee report: "There is a strong case for publishing Urdu books in Devanagari script...The *diwans* of Urdu poets and the anthologies of Urdu poetry in Devanagari script have sold in thousands. In our opinion, the experiment should be extended to cover fiction and humour also." The Suroor sub-Committee repeated this recommendation adding that "the government should earmark some funds" for this purpose (Recommendation no 84). And the Jafari Committee reiterated all this. These recommendations were very welcome ones. What one would like to know is whether the government, or the organisations established to promote Urdu, have taken any notice of them. Ali Sardar Jafari, the chairman of the third of the three committees, had already taken an admirable initiative many years ago in producing Devanagari editions of Ghalib and Mir.

One important, and much to be desired, consequence of making as much Urdu literature as possible available in Devanagari is that it would do something to hinder the efforts of Hindi chauvinists to expel from contemporary Hindi what they falsely call 'un-Indian' elements. Urdu in Devanagari script will help to maintain in Hindi the use of much vocabulary which is still, despite all the efforts of the Hindi chauvinists, common to the two languages.

There is another constituency of Urdu literature, that of those who can only approach Urdu literature through the medium of English. My own two books written in collaboration with Khurshidul Islam, *Three Mughal Poets* (1968) and *Ghalib, Life and Letters* (1969) were meant for people in the English speaking world. When they were a year or two ago, they sold quite well, obviously here in India. The publishing firm Rupa is anxious to publish English translations of works of Urdu literature.

It is not only publishers' realisation of the existence of this wider audience for Urdu literature in English that has made them ready to publish books like these. Since the rise of the women's movement and since the emergence of a strong anti-racist movement in the west, respectable publishers are frightened of being seen as in any way conforming to the values of racism or anti-feminism and one of the interesting results of this has been that

Asian woman who has translated from Urdu, stands a very good chance of having your translations accepted for publication in the UK and the US especially if it is women's writing that she has translated. This is a digression, but I wanted to make the point because even if there are quite fortuitous reasons which have not got anything to do with the value of Urdu literature, but which nevertheless make it possible for Urdu literature to be presented to a wider audience, we should not hesitate to take advantage of such factors

There is another, I think increasingly important, audience for Urdu literature presented in English in the second and third generation immigrants from Urdu speaking areas into the English speaking and the English knowing world and there are substantial numbers of such people both in North America and in Britain, and to a lesser extent in other European countries. In short, there is a much wider audience for books presenting Urdu literature in English than there was, say, 30 or 40 years ago. There was published in England, *The Penguin Book of Modern Urdu Poetry*, selected and translated by Mahmood Jamal (1986), and in India a Penguin book on Ghalib (Pavan K Varma, *Ghalib: The Man, The Times*, 1989) and numbers of translations of Faiz, including *The Rebel's Silhouette: Selected Poems*, translated by Agha Shahid Ali.

Those organisations which are concerned with the promotion of Urdu need to be concerned with all these audiences and not simply with the audience of those who are already able to read the Urdu script. For example, the Anjuman i Taraqqi i Urdu or the Taraqqi Urdu Bureau, needs to give support, including if necessary financial support, to any of those bodies, voluntary bodies, publishers, others, in this country and in other countries who are doing things which help the advancement of Urdu.

In my readings I have noticed that the extracts from the English and Urdu press are full of all the injustices done to Urdu, and there is very little else The account they give is perfectly accurate, and the greater part of this paper too has been devoted to them. But that is not the full picture. There are factors which are working in favour of Urdu and these too need to be described if an accurate, full picture is to be presented.

Waheed ud-Din Khan says in an article:

> My complaint is not against the national press, but against the Muslim press. At present all Muslim newspapers are trading in protests, complaints and the community suffering. It is a fact that the present Muslim journalism is protest journalism, not constructive journalism in any way This is the main problem. I may be allowed to say that the Muslim intellectual class itself is devoid of any positive thinking. Then, how can they work to promote positive thinking among ordinary Muslims? What are the Muslim newspapers doing? They are indulging in convincing the Muslims that they are an oppressed and deprived minority for whom all avenues of living and progress are closed. The reality is that problems and opportunities are always there in the world. The correct approach, therefore, is to find out the opportunities lurking among the problems and urge the people to utilise them while overlooking the problems. The correct formula is to 'starve the problems, feed the opportunities' (*The Nation*, Lahore, July 9, 1993).

Then there are distortions – dishonesty, to be quite blunt -- in the picture presented of the historical context within which the problems facing Urdu have to be seen. Perhaps because Ather Farouqui's thesis is the longest sustained treatment of these problems that I have read, I find him more guilty of these than most. His attacks on Hindu and Hindi chauvinists are fully warranted, but he greatly exaggerates the weight they carry on the Indian political and cultural scene. On the other hand he (and most other writers) are silent about the equally pernicious (and much more long-standing) Muslim chauvinism which is widely prevalent in the Urdu speaking community. Writers correctly assail the Uttar Pradesh government for declaring Hindi as the sole official language of the state. By exactly the same logic they should assail the government of Jammu and Kashmir for making Urdu its sole official language, when, as Syed Shahabuddin points out in his article in *Mainstream Annual 1988*: "Urdu is the official language of the state and the medium of instruction and yet declared as mother-tongue in 1971 or in 1981 as a household language by a very small proportion of the population who regard Kashmiri or Dogri or Hindi as their language". But I have never heard of any Muslim who takes the proper stand on this question.

Ather Farouqui argues, sometimes openly, and sometimes by implication, that Urdu speakers who have supported Congress or have consented to serve in government-financed organisations have 'sold out' to the enemies of Urdu. No doubt some of them have, but again this is much too simplified a picture. In particular his attacks on those Muslims who, long before independence was won, were with the Congress, are quite unwarranted. To describe Hayatullah Ansari as one "who raised the slogan of Urdu but who in fact had no interest in the welfare of Urdu and Muslims" (*The Nation*, Lahore, July 15, 1994), is completely unjust. He writes, "I consider the 20-lakh-signatures movement started by Dr Zakir Husain as an extremely unrealistic, escapist movement. Naturally, it did not yield any result". In what way "extremely unrealistic, escapist"? And why "naturally"? It is quite fair to say that the signatures campaign did not achieve the result it aimed at, but this does not mean that it was of no significance.

Waheed-ud-Din Khan's advice is to 'starve the problems, feed the opportunities', or, in other words, build upon the factors which help the cause of Urdu. Three of these have great significance. First, despite the efforts of the Hindi chauvinists the lingua franca, the 'link language' of everyday communication, continues to be, as it was before independence, one which is just as much Hindi as it is Urdu. This is evidenced by *Teach Yourself Hindi* (1989). On a typical page of the vocabulary provided at the end of the book, out of 73 entries 54 are words of this kind and there are only 18 words at the most which would perhaps not be understood by Urdu speakers. Secondly, the immensely popular Hindi films could equally accurately be called Urdu films. The Gujral Committee in para 140 of its summary of its conclusions rightly says that "the major contribution of films is that they have not allowed any barriers to grow between Urdu and Hindi". These two factors alone indicate that spoken Urdu is a language widely understood by millions of Indians, many of whom are not Muslims. Thirdly, interest in Urdu and its literature (especially its poetry) is widespread among very large numbers of people who do not know the Urdu script and have only a partial understanding of the literary language. I therefore quarrel with Ather Farouqui's view that Urdu is now essentially the language of the Muslims. And this is nothing new; Urdu always was essentially the language of the Muslims, notwithstanding that before independence it was also the language of much greater numbers of non-Muslims than it is now. I do not fundamentally disagree with Ather Farouqui on this point, but in the light of the positive factors I have spoken of, what is the point of constantly stressing that the Urdu speaking community and the Muslim community are virtually one and the same? Such a stress obscures the important point that the defence of the rights of Muslims and the defence and promotion of Urdu is not the concern of Muslims alone. These things are the concern of all those who uphold the declared ideals of independent India, and Urdu speakers need to reach out to all of them and work in harmony with them for these common ideals.

Courts, Civil Society and Public Sphere

Environmental Litigation in Calcutta

Hans Dembowski

With the help of public interest litigation cases regarding environmental problems of Calcutta, the article locates the city's problems of governance not so much in civil society as in the public sphere. Though the city does possess a criss-crossing structure of social web independent of the state, its citizens lack democratic trust in government agencies which remain inaccessible and unaccountable to their grievances. In such circumstances, the judiciary happens to be the only arm of government, providing rudimentary relief to citizens. Given the intransparency of the doings of other government agencies, the judiciary remains the only recourse to compel these agencies to function responsibly and thus stage a semblance of public sphere.

THIS is an essay in the sociology of governance. It deals with the division of power between the administrative and the judicial branches of government and their interaction with society at large. My findings are based on empirical cases of public interest litigation concerning environmental issues in the Calcutta area.

These cases, of course, must be seen in the context of 'judicial activism'. This phenomenon has, in the words of Upendra Baxi (1994:143) "transformed the Supreme Court OF INDIA into a Supreme Court FOR INDIANS". Scholarship generally regards judicial activism as a reaction to government lawlessness [Baxi 1994, 1996; Beteille 1997]. This fits in with a general notion of 'state erosion' in India [Rudolph and Rudolph 1988; Kothari 1989, 1995; Kohli 1990; Sudarshan 1990].

Indeed, the policy arena of urban and environmental affairs in Calcutta is ridden by a striking lack of trust. Citizens do not trust bureaucrats, petitioners have little faith in the judiciary, various NGOs eye one another with suspicion. Charges of corruption and incompetence are rampant. If a sense of trust does evolve, it is in individual persons. Unlike in Germany, my home country, there seems to be no trust in institutions or organisations *per se*. Of course, this has historical roots in colonialism. However, this diagnosis is not of much help when dealing with current problems of governance.

The theorem of 'Indian Communitarianism' [Joseph 1997] attempts to tackle this phenomenon as a consequence of the multi-religious, multilingual, multi-caste and multicultural fabric of south Asian society. Authors as Sudipta Kaviraj (1991), Partha Chatterjee (1995, 1997) or T N Madan argue that a notion of civil society and national citizenship can hardly arise in such a diverse setting. In a nutshell, their argument is that senses of loyalty are with one's immediate community which, in turn, is perceived to be competing with other communities in an all out struggle for dominance and even survival. This makes it unlikely to reach compromise as the result of reasoned deliberation.

My findings do not support this theorem. In the context of environmental litigation in Calcutta, problems of governance do not so much arise in 'civil society' as in the 'public sphere'. As these terms are often used interchangeably [Chandhoke 1995], the distinction needs some elaboration.

The core meaning of 'civil society' according Ralf Dahrendorf (1996:237) is the "criss-crossing network" of various non-state institutions: Families, religious groups, trade unions, clubs, market boards, etc. Civil society depends on civil liberties such as the freedoms of speech, of assembly, of association, of the press. The emphasis is on this social web's independence of the state. In Calcutta, such a criss-crossing structure does exist.

According to Craig Calhoun (1993:273), "public sphere" stands for an "arena of deliberate exchange in which rational-critical arguments rather than mere inherited ideals or personal statuses could determine agreements and actions". By definition, this has to involve the state. Government data must be available and reliable for the public sphere to operate, there must be ways to make the authorities accountable. Without a minimum of governmental transparency and responsiveness, there can be no effective public sphere, and civil society must remain politically impotent. The inclusion of government agencies in the bargaining and negotiating networks of civil society is so typical of western countries, that the distinction of public sphere and civil society has become blurred.

In Calcutta, however, these preconditions for democratic trust in a public sphere hardly exist. While there is freedom of press and open public debate, government agencies remain inaccessible and unaccountable. Legislations are not enacted, vital data remain classified, policy statements are not followed up by actions. In this context, civil society remains fragmented. I will argue that – to a limited, but not irrelevant extent – high court and Supreme Court have been giving citizens some leverage over the administration and are thus providing a rudimentary sense of public sphere. Public interest litigation inspires hope for relief but, so far, does not warrant trust in democratic governance.

The judiciary is itself bedevilled by the same phenomena of 'state erosion' as the administrative branch of government. Proceedings are slow and appear to be erratic. There is a generalised suspicion of corruption and collusion, exacerbated by intransparency. On November 24, 1997, the local pages of the *Asian Age* carried a report according to which the Supreme Court was investigating charges of corruption in the Calcutta High Court. Particularly its administration was said to regularly demand bribes in order to list cases.

The Calcutta metropolitan area faces tremendous environmental challenges. Air and water pollution, sanitation, drainage, noise, traffic congestion and waste disposal are all issues of serious concern. This has been amply documented on behalf of the state government [CMDA 1990, 1992, 1996; State Planning Board 1990; Ghosh 1991; CEMSAP 1995]. The undisputed cause of these problems has been unplanned growth over three centuries. In 1990, the assessment of the Calcutta Metropolitan Development Authority (CMDA) (page 9.1) read: "The chaotic sprawl that had plagued the metropolis during the last four decades will have to be checked with determination."

The CMDA must itself shoulder some of the responsibility. It had already been

established for two decades when this statement went into print. Nonetheless, the CMDA had not been successful in devising and implementing rational urban planning. According to Chinmoy Mozumdar (1998), politicians and bureaucrats had turned the CMDA into an "ideal environment for open corruption". The result was that "the Master Plan for the CMD area is still not charted even though the CMDA was statutorily established 27 years ago to do the same".

Systematic outline development plans are also required by the West Bengal Town and Country Planning Act of 1979. Urban planning is too fundamental an issue and the CMDA is too powerful and well equipped an institution to excuse this serious shortcoming with straits of staff and finance. Rather, this is an obvious example of governmental mismanagement.

This assessment sets the stage for the first two sections of my essay. They will present summarised assessments of two major complexes of environmental litigation in the Calcutta area. These are not comprehensive accounts of all relevant aspects. Rather, I will only attempt to highlight the most striking features. The third, concluding section will return to the more general issues of civil society, public sphere and urban governance in Calcutta.

I
The Howrah Matter

Howrah is the oldest industrial town in Asia. It tops the official list of "critically polluted areas" in India (*Asian Age*, March 17, 1998). Unlike Calcutta, the colonial era's "city of palaces", Howrah has always been a town of bleak workshops and dismal huts. After a century and a half of industrialisation, life in Howrah is still no better than what Friedrich Engels described in his 1844 classic, *Condition of the Working Class in England*.

The West Bengal State Planning Board (1990) reckoned there were over 570 large units of metal- and steel-based industries in Howrah. Other important industries included plastics, paints and jute. The estimated number of basically unregulated, small-scale industrial units was 32,000 (compared to only 42,000 in the much larger Calcutta Corporation area and a total of 1,50,000 in the metropolitan district).

Many of these industries are polluting. This is exacerbated by the fact, that there is no systematic zoning of residential, commercial and industrial quarters in this city of at least one million people Howrah's history is one of unplanned growth. According to local bureaucrats, Howrah has less than 5 per cent roadspace (compared to 6 per cent in Calcutta and an international standard of around 20 per cent). Roads are congested and full of pot holes. Garbage piles up along the roadsides. There is hardly any underground sewerage. Wastewaters are channelled through open drains that frequently clog and overflow. Howrah has very few public parks and hardly any open space. Recently, there has been a building spree. Many new residential high-rises in central Howrah add to the general sense of congestion.

As early as 1966, the Howrah Improvement Trust (page xi) declared the city to be "a town planner's headache". The reasons were "acute congestion, lack of adequate drainage system, housing shortage, absence of proper road alignments and other deficiencies in the matter of water supply, sewerage and community facilities". Twenty-six years later, the CMDA stated categorically that the city had "been deprived of the basic facilities and infrastructure from very early days". All measures taken so far had been "utterly inadequate". Accordingly, the CMDA called for stringent and enforced urban planning:

> If the growth is allowed to occur without any planned intervention it is likely that the spatial structure will be distorted with major deduction of open space, green areas and wetland. This would have very serious effect on environment. This should be prevented by all means. Unplanned urban growth in future would also aggravate the present damages that are being created by unscrupulous promoters in permitting high rise development with consequential densification of already congested parts of the city. This trend should be stopped to save the city [CMDA 1992:9].

The CMDA demanded massive infrastructure investment. Measures should include

- conservation of greeneries, parks, open spaces and water fronts;
- tree plantations;
- nature and wetland conservation;
- ecologically balanced waste water disposal;
- safe and hygienic disposal of all solid wastes; and
- environmental impact assessments for all major projects.

Such policy statements were not followed up by action. Rather, even in 1997, the 'Land Use and Development Control Plan for the Howrah Municipal Corporation' only existed as an unpublished draft.

This urban malaise is the setting of the 'Howrah Matter', a legal case which resulted from a writ petition by an NGO called, Howrah Ganatantrik Nagarik Samiti (GNS). The association had been started after Indira Gandhi's emergency rule by founder secretary Subhas Datta, a chartered accountant. Members include lower middle class Bengalis as well as Hindi speaking migrant labourers.

The GNS is rooted in the non-marxist, socialist tradition of the Jayaprakash Narayan movement. From its very beginning, it campaigned for better civic amenities but also against police atrocities, bad conditions in the local jail or poor postal services. It also took up foreign issues with rallies in support of Tasleema Nasreen or the Chinese students' democracy movement. Basically the GNS is a civil rights organisation that got involved in environmental issues because of immediate, every day exposure to grievances.

For almost two decades, the GNS relied mostly on rallies, memoranda and seminars. There were also incidents of civil disobedience in the tradition of the freedom movement. But until the GNS turned to the Supreme Court in April 1995, these campaigns had resulted in little else than paper and occasional police beatings and arrests.

The writ petition in the Supreme Court was not the first GNS attempt to move the judiciary. There had been several cases of public interest litigation in the Calcutta High Court. Most of these had been frustrating experiences. For instance, the high court had stayed plans to build a commercial complex in Bellilious Park in the late 1980s. The case was never settled. The private investor eventually shied away from the project during the long-drawn proceedings. Subsequently the local authorities had allowed the once beautiful park to decay and become an informal garbage dump.

The most spectacular GNS case in the high court concerned the Howrah Maidan, the city's central park. The GNS had, in early 1989, filed a petition against the construction of a massive auditorium at this location, arguing that the maidan served social and environmental needs. The high court stayed the project. In 1991 it ruled that there could be no permission to build the auditorium as long as a civil defence remained on the maidan's eastern end. This camp should be removed and its space be made a public park again. This was what an expert report by the All India Institute of Hygiene and Public Health had suggested.

The authorities ignored the judgment. Construction work went on with the civil defence camp still in place. In early 1995,

a high court judge therefore found the mayor and the district magistrate of Howrah guilty of contempt of court. Again this had no consequence. Both officials appealed to a division bench. The case did not come up for hearing and construction continued.

For Subhas Datta's GNS, taking state authorities to the high court had thus proved a futile exercise. In 1995, the GNS secretary decided to go to the Supreme Court. In the writ petition, he stated that the earlier GNS matters had been "delayed by the usual process of the high court" with the result that the civic authorities had in the meantime caused "permanent obstruction". The petition suggested that the high court needed a specialised 'public interest litigation bench' to guarantee 'speedy trial'.

The writ petition itself was a massive piece of work. It listed many complaints concerning Howrah's lack of civic amenities. These issues were argued on 81 pages. Including evidence provided in the annexures, this document filled 439 pages. The petition asked the Supreme Court to order the authorities.

- to restore all greeneries,
- to stop the felling of trees,
- to systematically monitor and prevent pollution,
- to cancel illegal allotments of public property to private firms,
- to clear garbage in Howrah (particularly from the fish market),
- to provide wholesome drinking water,
- to stop disposal of untreated sewage in the Hoogly river,
- to maintain all public parks (including the Maidan) properly,
- to keep the police morgue in a clean and hygienic manner,
- to stop the unplanned growth of high-rise buildings, and
- to submit all documents relating to urban development.

The Supreme Court accepted the matter (Howrah Ganatantrik Nagarik Samiti vs the State of West Bengal). It soon passed another stay order concerning the – by now almost finished – construction of the Maidan auditorium. This time, the authorities obeyed – apparently fearing the apex court might hold officers guilty for contempt of court.

On April 4, 1996, the Supreme Court passed a judgment based on the notion that environmental issues were "to be given utmost priority by the courts" in India. The Supreme Court itself claimed to be overburdened with such matters. This resulted from the fact that specific legislation was hardly implemented on either central or state levels. Concerning Howrah, the order stated that this complex matter would better be dealt with by the Calcutta High Court "because of the distance and various other problems". The high court was directed to establish a special bench which would "consider and deal with environmental and pollution control matters including the present petition".

Two months later, the new division bench (soon to be called the 'green bench') took up work in the high court. In September, its two judges paid an official visit to Howrah. On site, they found most of the claims made by the GNS to be correct. Since then, proceedings have been going on slowly but continuously. Unlike earlier GNS cases in the high court, they have led to visible results on the ground floor level. The most striking single issue of the Howrah Matter was the terrible condition of the police morgue. For years, dead bodies had simply been piling up in the backyard of a police station in central Howrah. In the early 1990s, up to several hundred corpses could be found rotting under the open sky. Occasionally, vultures would carry limbs from the compound and even drop dead flesh on city streets. Newspapers had reported, neighbours had staged rallies, the GNS had tried to pressurise the administration. Nevertheless the scandal had continued.

In the summer of 1996, the two judges of the green bench visited the morgue. Many court sessions later, in early 1997, they passed a comprehensive judgment. They ruled that the dead bodies would have to be cremated at least weekly. There would have to be an airconditioned room to store the dead instead of leaving them to rot under the open sky. Cremations have since taken place regularly. By November 1997 there was a new morgue building. In the summer of 1998, it finally had an operational ac system.

Undeniable progress was also made in the case of Howrah's fish and betel markets. These had for decades been held on a provisional site close to Howrah station. India's biggest wholesale market for seafood had neither an adequate system of garbage clearance nor of drainage and waste water disposal. Accumulating waste had blocked an entire road to traffic. An earlier high court order to open it had been of no avail. Daily floods, caused by melting ice, exacerbated the dirty mess. Vendors use ice to cool the fish.

This situation seemed all the more scandalous as a new market complex had been built years before. But it had never been used because of several pending litigations concerning stall allotments. The green bench took up this matter, settled the legal disputes and ordered the fish market to relocate and clean up the area. By late 1997, the vast majority of fish vendors had moved to the new complex. The formerly blocked street was open to traffic again. There were still problems with drainage but they were not as severe as they had been at the provisional site. A small fraction of the fish stalls and the betel market had yet to relocate to a completely new site.

The green bench also took up the question of the auditorium on the Howrah Maidan. In early 1997, it argued that this project should be finished because much money had already been invested. The judges did not punish anyone for contempt of court. Even though they would have had perfect reason to do so, they did not assert the authority of the judiciary. Rather they legalised facts which had been accomplished against explicit orders of the high court. The judges did, nonetheless, insist on the removal of the civil defence camp – which subsequently occurred. Also they strictly outruled any commercial use of the auditorium or its conversion into a cinema hall as had happened with an earlier corporation-run auditorium.

On another large part of the Maidan, a stadium had come up. Subhas Datta had also challenged this scheme in the writ petition, emphasising that the outer side of the galleries had been rented out as commercial shops. There was reason to believe that these businesses had bribed officers. The green bench did not hear this matter in its first 18 months. Nonetheless the city authorities had – on their own initiative – unlocked the gate to the playing field. By the summer of 1997, this area and the plot of the civil defence camp were accessible again. Before the green bench took up work, the entire Maidan had been closed to the public.

The green bench further interfered to some effect with two informal, large-scale garbage dumps. Bellilious park and a vast space underneath the second Hoogly bridge had been systematically abused as landfills by city contractors. After respective orders of the green bench, this practice was discontinued in 1997. However, these places were not turned into well-maintained public parks as had also been demanded by the judges.

For the GNS, such successes are undeniable. However, moving the court is no easy road to relief. All locations need constant monitoring. While court orders are now normally adhered to in at least symbolical way, they are rarely enacted in a literal sense. Taking the state to court remains a repetitive, cumbersome and

piecemeal process. Ground floor success tends to be of an only partial nature.

Moreover, the green bench did not tackle several serious issues during its first 18 months. These included

- the uncontrolled growth of high-rise housing in the city centre,
- everything relating to waste water disposal through open drains,
- the provision of safe drinking water,
- dust, air and noise pollution due to traffic on ill-maintained, narrow roads.

More generally speaking, the green bench had not dealt with the issue of urban planning. It had not tackled the core problem of Howrah's (and the entire agglomeration's) environmental crisis as diagnosed by the CMDA itself in 1990 and 1992.

Progress in the Howrah Matter may remain slow – but it is not limited to this city. After the case of the Howrah morgue was dealt with, the similarly terrible conditions of other morgues in West Bengal were brought to the attention of the high court. In the summer of 1998, court sessions concerning the comprehensive number of almost 50 morgues in the state were being prepared. The green bench had set a precedent in Howrah on what was no longer to be considered acceptable and now seemed ready to apply the new standards to all of West Bengal

Another effect of the Howrah Matter has been that more and more citizens approach the green bench, often after seeking advice and support from Subhas Datta. They have discovered that the mere threat of going to court may now set the local administration in motion. In Howrah, where citizens had hardly ever seen the local government as anything but a corrupt network of self-serving thieves, the green bench has introduced the principle that the government has duties to perform. Today, several dozen major cases (many of which argued by Subhas Datta) are pending before this judicial body. They tell of the rising interest in using public interest litigation to establish a sense of public sphere in West Bengal

Nevertheless, efforts to sue the government or polluting industries may still be in vain. Some cases were not accepted by the green bench. Others, simply were not listed in spite of having been accepted. Even for regular observers, the decisions of the green bench seem unpredictable and almost erratic.

Summarily, it will have become evident that the green bench has given citizens and their organisations some leverage over the local government. This is the place were high-ranking officials may be forced to publicly elaborate on their bureaucracies' doings. While public interest litigation still does not inspire trust in the branches of government, it does give rise to hope for relief from grievances. This will also become apparent in the second major complex of environmental court activism.

II
The Disputes over the East Calcutta Wetlands

Calcutta is located on the western end of the Ganges delta. The landscape to the city's east and south-east is dominated by ponds, swamps and low lying, flood-prone land. In a general sense, all this territory consists of wetland area. It is not fit for urbanisation. Briefly summarised, the main reasons are:

Water: Most of the land is flooded in the rainy season. Effective drainage would be difficult and very expensive. On the other hand, provision of drinking water would also be problematic. Groundwater is scarce. Should too much be extracted, the aquifiers are likely to become saline [Sinha 1985, 1988].

Biodiversity: There are many varieties of birds that breed in the east Calcutta wetlands. They depend on these biotopes [Ghosh 1991]. The multilateral Ramsar Convention (to which India adheres) calls for their protection. Environmentalists are campaigning for this goal internationally.

Waste recycling: A massive waste recycling scheme has informally come up in large parts of the wetlands. Vegetable farms have been using composted garbage as fertiliser since the end of the last century. In the 1930s local pisciculturists began growing fish in urban waste waters. The schemes basically serve as a giant biological treatment plant for organically contaminated garbage and waste water [Furedy 1987; Ghosh and Sen 1987; Ghosh 1991; Ghosh 1993, 1996]. While experts acknowledge some problems of food contamination (for instance with heavy metals), they in principle believe this system to be a very good solution for a mega-city in a developing country [CEMSAP 1997].

Livelihood: The wetlands have a two-fold relevance for poor people's livelihood. One: they provide employment for 10,000 of villagers involved in agriculture and pisciculture. Two: fish and vegetables from the wetlands are among the cheapest in Calcutta's markets. Transport costs are minimal as production takes place on the city limits [Ghosh 1993; IWMED 1995].

Accordingly, government plans outruled eastern and south-eastern expansion of the metropolis for decades [CMDA 1990; State Planning Board 1990, Dasgupta et al 1991]. Nontheless, the state government had also pursued one project that did not confirm to this policy. The township of Salt Lake City had been built on reclaimed wetlands. With ample space and good commercial facilities, it is now one of the agglomeration's fancier neighbourhoods.

However, the experience of this township also shows that the above-mentioned concerns are to be taken seriously [Chattopadhyaya 1990]. There are problems of flooding as well as that of provision of drinking water. The growth of Salt Lake City has led to a loss of fish ponds and agricultural land. Villagers were uprooted and dislocated [Chattopadhyaya 1990; Kundu 1994].

With the exception of Salt Lake City, the West Bengal authorities have generally protected the wetlands. However, the government is not organised in a way that would allow it to deal with the issue efficiently. In 1988, seven departments of the state government, along with its wastelands development board and four bodies of the central government had stakes in these wetlands. They covered areas in the Calcutta corporation and two neighbouring districts. Large sections, but not all, fell within the competence of the CMDA.

This fragmentation of governmental jurisdiction led to serious management problems as assessed by the Institute of Wetland Management and Ecological Design [IWMED 1988:9]. This expert body was set up by the state in the early 1980s, but it never obtained the statutory powers needed to fulfil the tasks defined by its name. It basically remains a research institute.

In the late 1980s, it was becoming obvious that official governmental policies concerning east Calcutta were no longer to be taken at face value. By 1991, the list of newspaper reports about development projects on Calcutta's east side had become quite long. The construction of the eastern metropolitan bypass had made the area easily accessible. It had become attractive for real estate speculation. This was in stark contrast to the well-argued (and documented) reasons not to urbanise this territory.

A network of environmentally minded bureaucrats began to feel that they were loosing the inner-governmental struggle to protect the wetlands. They briefed urban NGOs and motivated them to start a campaign to raise awareness. These NGOs, however, could not mobilise a mass movement. In the wetland area, social strife and labour unrest made concerted grass root opposition to development schemes unlikely. With both overt and

covert support from individual bureaucrats, the urban NGOs finally decided to take the matter to court. In early 1992, a pressure group called PUBLIC (People United for Better Living in Calcutta) filed a writ petition in the high court.

Public vs the State of West Bengal

PUBLIC based its demands on the expertise of its bureaucrat allies. Several photocopies of governmental documents were annexed to the petition, most of which were not normally available in public. The court was asked to direct the authorities to protect the wetlands. They should set up an institution for this purpose. The petition included a map of the 'waste recycling region' which had been drafted by the IWMED some years before. For the first time, the term 'east Calcutta wetlands' was legally equated with the 'waste recycling region'. This use of the term is confusing as not all wetland areas are covered by the 'waste recycling region'.

The high court accepted the case (PUBLIC vs the State of West Bengal) and began to look into the matter. Proceedings went on fast. It became evident that the petition was in tune with central government's wetland protection policy and the international Ramsar convention. It also turned out that the state government had not finalised any development plans for the mooted projects. These included (among others) a world trade centre, a permanent ground for trade fairs and exhibitions, a new zoo and a south-ward expansion of Salt Lake City.

On September 24, 1992, high court justice Umesh Chandra Banerjee delivered the first major judgment on the matter. He ruled that the wetlands were "a gift of nature". He defined it as the court's job to "strike a balance between development and environment". According to him, wetlands could only be reclaimed for development projects that would benefit society at large. In principle, a world trade centre and a permanent fair ground would fall in this category. Both were likely to serve as motors for eastern India's industrial and commercial development. The wetlands, on the other hand, were stated to be too precious to be sacrificed for a mere township.

The ruling did not simply permit any projects. Rather it stressed that the authorities had not come up with any detailed plans. This meant that the proposals were still in "a state of fluidity". The judgment also emphasised that the CMDA itself had not approved of eastern urban expansion in its 1990 document. This was considered to be crucial as the CMDA was the responsible planning authority.

The judge decided to give the state one year's time to return to the high court with detailed plans concerning a world trade centre and an exhibition ground. For these two schemes, an area of almost 190 acres could in principle be earmarked in the wetlands. However, no other development projects would be permitted in the area of 5,500 hectars outlined by the map of the waste recycling region. For PUBLIC, this was a major success.

In retrospect, however, it is clear that this judgment opened all the other areas on Calcutta's eastern fringes to development which, as stated above, also qualify as wetlands. The judgment also failed to provide an authority with encompassing powers to manage the wetlands. Finally, the high court had not paid attention to urban planning as defined by the West Bengal Town and Country Planning Act (1979) with its emphasis on outline development plans.

Within the next 12 months, the private company, Development Consultants Ltd (DCL), approached the high court with detailed plans for a world trade centre. It was acting on behalf of the state government. Another year later, on November 30, 1994, justice Banerjee passed a second judgment concerning the world trade centre. It repeated the notion of "striking a balance between environment and development" and alotted 73 acres of wetland territory south of Salt Lake City for the world trade centre. As there had been no further application to build a permanent exhibition site, this aspect was disposed of for good.

PUBLIC, however, immediately appealed against the world trade centre decision. Procedings have since been dragging on slowly. In early 1998, the core facility was being built on the borders of the disputed area with DCL prepared to extend the complex into the waste recycling region as soon as so permitted by the court. The area in dispute amounts to less than 1 per cent of the protected area. Its relevance for the ecological balance should not be exaggerated. Rather, it is important to stress that the high court rulings have remained consistent since the very beginning. Rumours among Calcutta's environmentalists accuse the high court of having reversed its initial anti-government stance by later permitting the project.

M C Mehta vs the Union of India

In the mean time, another case affecting the east Calcutta wetlands was being dealt with in the Supreme Court. This was the 'Ganga Matter', filed by Delhi-based environmental lawyer Mahesh Chandra Mehta in 1985 (M C Mehta vs the Union of India). Initially, this case had concerned the tanneries in Kanpur. Later, the scope was extended to cover all industrial pollution of the Ganges.

On December 12, 1996, the Supreme Court passed a comprehensive judgment concerning the Calcutta tanneries. Their case had been dealt with in the Supreme Court for a period of almost four years. Apparently, both the state government and the tannery owners had been dragging their feet. After all, the tanneries are an important factor of Calcutta's economy. They employed some 10-15,000 workers. At least another 1,00,000 jobs in the leather trades depended on them. Neither employers nor employed were in favour of moving.

Nonetheless, in 1992 the state government had proposed to set up a new leather complex at Karaidanga, roughly 20 km east of the city centre. In its final judgment, the Supreme Court ordered to do so by September 1997. As there was no space to set up adequate effluent treatment schemes in the traditional tannery neighbourhoods of Tangra, Tapsia and Tiljala, these businesses could no longer be allowed to operate there. The new leather complex would be equipped with a common treatment plant. The state government would bear some of the costs and the tanneries would later pay for its services so that this solution was considered to be financially viable.

The Supreme Court was dealing with the issue of pollution. It did not delve systematically into questions of urban planning and of wetland protection. The result is that, according to PUBLIC and others, the leather complex location at Karaidanga is within the waste recycling region. The tannery owners had brought up the argument of the high court ruling in the Supreme Court. The state government denied that the protected area would be affected. However, individual members of the bureaucracy still claim that the place is indeed judicially protected territory.

The Supreme Court's decision was not implemented in time. By Christmas 1997, only a half dozen businesses had shifted to Karaidanga. However, large-scale construction works were underway and progressing fast. The road to Karaidanga was being widened. While some people in the leather industries believed relocation would take another ten years, the recent developments did suggest that the state government was eager to get ahead with the project.

with concern to the general wetland problematic, this is highly ambivalent. On the one hand, tannery effluents are contaminated with toxic heavy metals. They will no longer be channelled into the wetlands. This practice has long since affected the safety of food production in the waste recycling region. In this sense, the relocation of the tanneries seems desirable.

On the other hand, there has been no environmental impact assessment deserving the term. The leather complex will need water. It is unknown how this will affect the delicate ecological balance of the waste recycling region. Additional traffic on a by now widened road through this protected area is, of course, also no blessing for a fragile environment.

Most disturbingly, the question has not been legally resolved whether the leather complex and waste recycling region overlap or not. The map used in the high court judgment is of inadequate scale to determine this. PUBLIC approached the high court in 1995 for a clarification. The NGO made the serious charge that state agents were guilty of contempt of court. One might expect the high court to assert its powers by dealing with PUBLIC's accusations after having assumed the authority to protect a certain area of the wetlands in repeated judgments. Nonetheless, the matter was kept pending.

The Supreme Court, on the other hand, had only dealt with the wetland question briefly and was apparently shown a different map rather than the one used in the high court. Neither map is publically available. They are included somewhere in unpublished court files. Even the Geographical Survey of India maps of the area have been unavailable throughout the 1990s. Therefore, the issue remains totally intransparent. This undermines the authority of the judiciary. The situation inspires rumours and speculations but not trust in any branch of government. The general public is deprived of verifiable information.

This does not mean that the high court's protective ruling had been totally uneffective. With the possible (and noteworthy) exception of the leather complex, all other new construction projects in the waste recycling region have been discontinued. In spite of rampant rumours about massive real estate speculation going on in the waste recycling region, the area seemed fairly well protected in the winter of 1997-98. This had, however, required constant monitoring by PUBLIC. The NGO had brought several projects to the high court's attention which were then abandoned without further judgments.

Such success may well be related to the fact that wetland protection was always also the goal of some people within the government. In a certain sense, PUBLIC had been representing them in court. They could not be involved themselves in a litigation against their employer, the state government.

Indeed, after the high court ruling of 1992, the environmentalist network in the bureaucracy was making some headway again. The state government officially proposed to the central government to declare some wetland areas in east Calcutta

as being of both 'national' and 'international importance'. This would legally imply conservation. However, neither proposal has so far been finalised.

Surojit Srimani vs the State of West Bengal

The exclusive protection of the waste recycling region has one major drawback. Those eastern fringes of the city not covered by the high court's order have since been exposed to rapid, inadequately planned urbanisation. This was highlighted by a third case of public interest litigation (Surojit Srimani vs the state of West Bengal).

In May 1995, an informal group of 22 friends wrote a letter to the chief justice of India begging the Supreme Court to control Calcutta's eastern sprawl. This appeal again mentioned several state government documents as evidence. The Supreme Court did not take up the matter but referred it to the high court. Here it was first heard by a single bench in the first half of 1996 and then transferred to the new green bench in the summer of that year

The petitioners listed a series of projects coming up near the eastern metropolitan bypass. These included a convention centre and exhibition hall ('Science City'), a craft's village, a film training centre, new townships and industrial estates, a hospital, a five-star-hotel and an energy park. The petitioners also pointed out that the CMDA itself had not published the outline development plan demanded by the West Bengal Town and Country Planning Act (1979). The CMDA itself had not recommended the area around the eastern metropolitan bypass for urban growth in its programmatic document of 1990. According to the petitioners, the authorities were thus 'systematically violating' state norms.

The green bench did not pay much attention to these arguments. This is remarkable. Justice Umesh Banerjee, its senior member, had in his 1992 ruling regarded the CMDA document of 1990 as legally binding This paper had not referred to the waste recycling region but had found all of Calcutta's east unfit for urbanisation. Now, this paper was declared a policy statement rather than a planning document of binding nature.

The petitioners demanded that the authorities elaborate on why their assessment of the geographical conditions had changed, but the green bench did not hear the matter anymore. Rather, it accepted an unpublished CMDA paper as legally adequate plan. This had apparently been drafted in haste (and quite likely too late, when construction was already going on). Shortcomings of urban planning, so crucial for the agglomerations environmental crisis, again stayed untackled by the judiciary.

What caught the judges' attention was something else. 'Science City', by then almost completed, had been built on a former garbage dump. There was a risk of methane accumulating and catching fire. To deal with this danger, the green bench ruled on October 11, 1996 that the levels of methane in the air of the compound would have to be measured every six months. Sadly, this is useless from an engineering point of view. Methane is dangerous when accumulating underground but not when dispersed in the air. The green bench had thus passed an order which only symbolically tackled the risk involved. The green bench paid less attention to the science city than its senior member, sitting alone, had paid to the environmentally less problematic world trade centre.

As in the Howrah matter, positive consequences of public litigation are undeniable in the case of the east Calcutta wetlands. The waste recycling region has been quite effectively protected. The tanneries are being forced to do something about their effluents. However, the geographically incorrect, legal equation of 'wetlands' with 'Waste Recycling Region' diverted attention from the issues of urban planning. The possible conflict between the judgments of the high court and the Supreme Court remains irritatingly unresolved.

IV
Conclusion

The case studies suggest that the judiciary as a whole is muddling through rather than applying an overarching, consistent body of law. This is exacerbated by the fact (not elaborated on here) that changes of judges may radically change the course of proceedings. Individual bench members dealt thoroughly with some issues and seemed eager to dispose of other questions quickly.

Even aspects of strictly procedural nature are surprise-prone. Appeals to the Supreme Court resulted in session before a new environmental bench in the high court which, in itself, was a radical innovation of the normally not specialised higher Indian judiciary. Neither judicial tier has been overactive. They did not assert their authority by punishing officers for contempt of court, even though both occasionally (with good reason) threatened to do so. Enforcement of judgments remains unpredictable and erratic.

It would be wrong to simply blame individual judges for this state of affairs. Their task of setting administrative shortcomings straight is daunting. As has been scholarly discussed, environmental legislation is often not realistic in India, consisting more of propagandist promises than of pragmatically implementable programmes [Khator 1991; Gadgil and Guha 1995].

In this context, it is worth keeping in mind that environmental challenges are always among the most difficult any polity faces. This is the reason why they are good test cases to investigate questions of governance in general. Environmental matters affect economy, culture, social habits and security, traditions and the distribution of incomes. Even in countries much richer than India (Germany for instance), the policy arenas are haunted by fancy rhetoric followed up by merely symbolical, ineffective measures.

However, the gap between what is official legislation and what occurs on the ground floor level seems to be particularly wide in India. This is related to the shortcomings of the public sphere. For the citizens of the Calcutta metropolis, both the judiciary and the administration appear as two almost-absolute powers which occasionally compete for dominance. For non-governmental activists, it is all but impossible to check either of them. They remain beyond reach and highly intransparent.

This has many aspects. One is the fact that both commonly use a foreign language, English. Moreover, administrative as well as judicial files are kept secret. Only the most innovative judgments are reported in the law journals. Many important court documents remain publically inaccessible. The same is true of relevant government reports and papers relating to urban planning and environment. Occasionally, they may leak out. In this context, it becomes a personal favour if bureaucrats or judges take up any particular cause. In everyday life, it is not an inalienable, reliable right of the people to be heard by the authorities.

Just as legislations or policy statements are not always followed up by action, so court rulings are not necessarily implemented. This is again not simply the consequence of personal wrong-doing or incompetence. Many government agencies are inadequately staffed, equipped and organised to do their jobs properly.

For instance, the West Bengal Pollution Control Board only has a technical staff of 25 to check pollution in a state with almost as many people as reunited Germany

ınd with the oldest industrial base in Asia. Nevertheless, the green bench relies on his agency's reports. By trying to make he state Pollution Control Board its nvestigating agency, the high court judges ıave increased its workload and added to ts already overburdened agenda. Consequently, Pollution Control Board reports ıre often of a rather dubious quality.

As far as the CMDA is concerned, a nuch more powerful institution, there are other systematic problems. It is not responsible to the democratically elected municipal bodies it is supposed to plan for. Rather, the CMDA reports directly to the chief minister who is dealing with a much vaster electorate than the municipal bodies concerned. The CMDA is thus removed from its immediate political constituency.

Moreover, the CMDA is entrusted with both devising and implementing urban planning. This eliminates an important stage of control. Consequently, the CMDA s not performing either task satisfyingly. For the citizens of the metropolitan district, he CMDA is not so much a democratic nstitution serving the public as an authority weilding arbitrary, almost absolutist, powers.

This sense of intransparency in what should be an element of the public sphere s reflected by a lack of trust and cooperation among the various NGOs. Stereotypically, other NGOs are accused of being incompetent and corrupt, of not having any grass roots contacts and not seriously caring about the environment. Different groups eye one another with suspicion. Others might only be trying to gain an unproportionate claim to fame or be angling for foreign funds. This weakens civil society in confrontation with the government and further reduces the sense of public sphere. Closer co-operation for instance in order to monitor the implementation of court orders) would lessen the NGOs' workload.

Of course, it is difficult to bridge all gaps stemming from divisions of caste, religion, language, etc. But there is a serious argument against explaining the problematic aspects of Calcutta's civil society along the lines of Indian communitarianism: the people involved in public interest litigations are almost exclusively upper caste, English speaking, educated, middle class Bengalis. Most judges and government officers share this background. Apparently, they face tremendous problems of co-operation within their own social stratum. Perhaps there would be a stronger sense of trust in civil society if interaction with government bodies was more reliable.

Strengthening the public sphere would, in any case, enhance the political potential of civil society. The empirical evidence of Calcutta thus supports the programmatic approach of the Berlin-based network 'transparency International', which, after the model of Amnesty International, wants to tackle corruption and criminal governmental negligence. To put it another way, the undeniable problems of (at least formally) democratic governance in Calcutta seem to be typical of an arrogant, post-colonial attitude displayed by state agencies. They do not simply derive from the problems of a multicultural social fabric.

In this sense, my modest advice to individual judges who want to improve governance by using their considerable personal power would be to make bureaucracies more transparent. They could order officers to publicly elaborate on the doings of their agencies and then take them by their word. The judiciary can not solve all technical, economic, social and other questions related to environmental problems. But it has scope to provide more transparency and more responsibility – in the very literal sense of making those in charge respond. If successful, this might over the long run not only inspire hope but also encourage trust in the democratic state.

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New Fertiliser Policy: A Practical Approach

Sanjay Kumar

The fertiliser industry rejected the report of the Hanumantha Rao Committee on pricing of fertilisers on the ground that a uniform pricing policy cannot be applied to an industry that is so heterogeneous in its structure due to various factors which were exogenous to the industry. This article examines the arguments of the industry. It also examines the recommendations of the committee and tries to meet some of the valid criticisms of the industry and work out a modified price following the long-range marginal costing principle. The new price will improve the acceptability of the report and encourage new capacity addition.

IN the light of the recommendations of the Hanumantha Rao Committee on fertiliser pricing policy and reactions of the fertiliser industry, there are some questions which need further discussion. The discussion is imperative because fertiliser is a key industry having large investments and use of fertiliser is key to increasing foodgrain production. But large subsidy on fertiliser may not be sustainable for a resource-starved government. The following questions are relevant in this respect:

- Can there be a uniform price for a heterogeneous urea industry? Is the heterogeneity of the industry not a product of the RPS? Does LRMC pricing address issues relating to efficiency and viability?
- Should there be an exit policy? What can be the elements of an exit policy?
- Study of resource cost of the fertiliser industry indicates absence of comparative advantage. Does this imply that India should adopt a pragmatic approach to the objective of assured supply by reducing its domestic production and import either through long term buy-back arrangements or set up joint ventures abroad for buy-backs? But given the uncertain external political conditions, how sustainable can this be?
- The committee recommended structuring of the existing and the future industry on natural gas and, in its absence, on LNG. But so far there has not been any progress in the work relating to making LNG available. Is LNG the feedstock for a distant future? What steps should be taken to mobilise the huge funds and backward/forward linkages required for setting up LNG facility? Is naphtha a better option than LNG, given a marginal difference in the energy efficiency between the two and the additional huge investment required for setting up LNG facility? What are the comparative trade-offs between the two?

In this paper an attempt has been made to understand the implications of the Hanumantha Rao Committee's report for the domestic production of urea, which at present is under the administered price regime. The paper also analyses some of the criticisms of the report by the industry and suggests changes that may be needed to take care of some of the valid criticisms.

Overview of Fertilizer Industry

The Indian fertiliser industry has grown rapidly over the years. It has supplied the bulk of the growing demand for fertilisers. From a very high level of 80 per cent of import in 1966-67, imports have gone down during the last few years. At present, the self-sufficiency level in fertiliser production is 86 per cent. Production of urea in 1951-52 was 63,000 tonnes, which increased to 194 lakh tonnes in 1997-98. The NPK consumption in the country in 1950-51 was only 69,000 tonnes, which increased to roughly 14.5 million tonnes in 1996-97. High level of domestic production and consumption has enabled the country to achieve substantial increase in foodgrain production. From 74 million tonnes of foodgrain production in 1966-67, production in 1997-98 was close to 195 million tonnes.

Large increase in consumption as well as production of fertilisers has largely been possible through concerted policy push by the government to subsidise consumption. The producer pricing system in 1977 based on cost-plus approach called Retention Price-cum-Subsidy Scheme (RPS) encouraged indigenous production and made it possible for the government to provide fertilisers to the farmers at affordable price.[1] Availability of fertilisers to the farmers was ensured through a system of reimbursement of incurred freight cost. Though the freight cost reimbursement system is considered concomitant with the RPS, it is a separate scheme called equated freight scheme. Though laudable in terms of achievement of goals, the subsidy outgo on account of fertilisers increased from Rs 170 crore in 1980-81 to Rs 8,350 crore in 1997-98.

The economic reforms started in 1991 called for review of industrialisation policy in the country. The regulatory system, which hitherto prevailed in the fertiliser sector, needed it to be replaced by a policy based on evaluating make-buy options based on relative costs of imports and domestic production of urea. Further the budgetary subsidy over a period of time since introduction of the Retention Price Scheme had grown to more than half of the central government spending on agriculture and to about 1 per cent of GDP. This put the government budget under unacceptable strain.

A start was made by the government in August 1992 to move away from the highly regulated system and reduce the subsidy by decontrolling phosphatic and potassic fertilisers. Partial decontrol of fertiliser sector led to sharp increase in the prices of P and K fertilisers. Since nitrogenous fertilisers became relatively cheaper, a sharp fall in consumption of P and K fertilisers further skewed the none-too-favourable NPK balance prevailing before the decontrol. The NPK ratio prior to decontrol was 5.9:2.4:1 (the accepted ideal ratio being 4:2:1). This became 9.5:3.2:1 after the decontrol. Freeing of imports brought down the prices of DAP, but made the domestic industry unviable. The government was forced to introduce a system of subsidisation on the basis of sales, called ad hoc concession scheme. This scheme was aimed at reducing the prices paid by the farmers. The scheme was to be initially for one year with a provision of Rs 340 crore. Later on it was extended and its scope was also widened to introduce differential subsidy on domestic production and imports.

The above changes did not result into containment of fertiliser subsidy – in 1991-92, the subsidy on P and K fertilisers was Rs 1,326 crore and the same in 1997-98 was Rs 2,052 crore. Halting, contradictory and incoherent changes resulted in policy uncertainty impairing further growth and investment in the sector. To take a fresh look at the problems of the fertiliser sector, the government instituted an Expert Committee under C H Hanumantha Rao, former member, Planning Commission, to suggest either an alternative pricing mechanism or corrections for removing some of

the deficiencies of the existing pricing system. The committee submitted its report in April 1998 and recommended far-reaching changes.

RPS In Existing Urea Units

The committee, while noting the positive aspects of the RPS system in providing secure environment for investment and production, found a number of deficiencies in the cost-plus approach and recommended discontinuation of the same. The committee felt that some units had been understating their nameplate capacity to take undue advantage of the pricing system. The basis for suspecting such a possibility lay in the exceptionally high rates of capacity utilisation achieved by the units.[2] The incentive was that if a unit achieved a higher capacity utilisation it could substantially raise its return on net worth as the capital charges receivable by the units were fixed at 12 per cent post-tax ROR on net worth at 90 per cent of capacity utilisation. Though there was no justification for CRC (capital related charges) payments above the assessed level as the plant recovered its full investment at this point, the committee concluded that the present system of CRC conferred a differential return. It rewarded high cost units with high CRC even if they were inefficient in other terms so long as they produced above assessed levels of production.

The committee observed that the scheme relied on claiming and proving the costs and there was no approach for adopting a normative basis for pricing which could lead to an energy efficient industry. There was no incentive for innovation or incentive to encourage energy efficiency.[3] The discouragement to adopting energy efficiency measures arose because the producers' price was calculated on the basis of historical cost data. If historical data for consumption of feedstock or fuel were high, the unit's price was higher. Any gain of innovation or adoption of energy efficiency measures were mopped up eventually, discouraging such measures.

The committee also felt that the cost-plus content of the RPS affected the decision-making process of the government for fixing prices also. Since the cost-plus approach resulted in an ever-increasing subsidy bill with no possibility of a cap, most of the decisions were taken with a view to containing the subsidy in an arbitrary and ad hoc manner. This style of decision-making put industry to undue hardship and resulted in cases of under-recovery. The committee felt that the cases of underrecovery were only to the extent of 2 to 3 per cent. But the industry felt that the underrecovery was much more than that, coupled with delayed payments.[4] It is therefore to be understood that the distortions pointed out by the committee were inherent in a cost-plus approach and it may not exactly be worthwhile to establish cause and effect relationship.

RPS did not envisage any exit policy for inefficient units. The emphasis was on production, rather on the cost of production. A study[5] of the resource cost of the industry suggests that about 10 per cent of the current urea production is uneconomical at import parity price[6] of US $ 163 per MT and should therefore be replaced. Most of the units, which are uneconomical, are based on naphtha and coal. (In fact all coal-based units are uneconomical, their retention prices being more than Rs 10,000 per MT but the total quantum of production from these units are very low; the units being sick.)

Unrestricted entry of high cost producers and inability of old or sick units to generate surpluses to modernise themselves led to creation of a heterogeneous industry. The committee also felt that "RPS militates against economic efficiency" and there was need for adoption of normative project costs and operational efficiency norms to bring about significant gains in productivity and competitive fertiliser prices which encourages cost reduction efforts. The committee therefore recommended a uniform producer's price on the basis of long range marginal costing (LRMC) principle for the urea units and calculated producer's price of Rs 6,050 per MT for all the existing gas based units. The committee also established that the most efficient feedstock for production of urea is natural gas and in its absence liquefied natural gas (LNG). For the existing fuel oil, naphtha and coal based units, it recommended a fuel based compensation called feedstock differential cost reimbursement (FDCR) for a period of five years. In this period the committee expected these units to restructure themselves. In a way, this was an exit policy for the non-gas-based units.

For the new units, the committee was of the view that only gas-based and LNG-based units should be set up. Since the cost of production from these units was to be in the range of Rs 7,000 per MT for gas, and Rs 8,300 per MT for LNG, the committee suggested that the government should review its policy from time to time. In case it wanted to attain a particular self-sufficiency level of production, it could give appropriate incentive for setting up of plants.

Response of FAI

The Fertiliser Association of India (FAI) rejected the recommendations of the committee.[7] The association felt that the committee gave a simple solution to a rather complex industry. The complexity of the industry arose from usage of different feedstocks made available to the industry at various points of time during its growth. Feedstock sources determined the location choices of the plants. These factors were largely exogenous to the industry. The industry felt that the government, which so far had a major role in guiding the growth of the industry, should not abdicate its role without providing a viable alternative. The FAI contended that the recommendations, if accepted, would hurt 65 to 70 per cent existing domestic production. On the recommended prices this production would become unviable. This may not be appropriate given the huge outgo of foreign exchange required to make good the shortage from the international market. Reduction in fertiliser consumption due to disturbance in production would also have an adverse effect on foodgrain production, the FAI argued.

Industry felt that there was no flaw in the RPS. The problem was in the way it was implemented. The FAI stated that the committee misjudged the problem of implementation as a flaw in the system and recommended its dismantling.[8] If however some of the problems of the existing RPS are corrected to bring in proper implementation to minimise delays and arbitrariness, RPS could still be the right system, the FAI suggested. The FAI also demanded returns as available in other industries, particularly in power, for the objective of attracting investment and creating an efficient industry

Heterogeneous Structure of Urea Industry

The industry rejected the uniform pricing mechanism for urea on the grounds that it disregarded the heterogeneous character of the urea fertiliser industry with plants differing widely in respect of feedstock, vintage, location, technology, investment cost, financing pattern, etc.[9] The industry argued that it was these factors of feedstock, vintage, location, technology, etc, which led to differences in the cost of production. But then the sector had some very modern plants also whose consumption ratio was comparable to any world class production facility. These are some of the recently commissioned plants, like Tata Chemicals at Babrala, Chambal

Fertilisers at Gadepan and Oswal Fertilisers at Shahjahanpur.

While existence of efficient units cannot be overlooked, it is some of the very old plants, like Duncan's plant at Kanpur, FACT's plant at Cochin, coal-based plants of FCI and plants of HFC (HFC and FCI are two sick PSUs in the fertiliser sector), which are cause for worry. These are almost fully depreciated plants with very low capital related charges, in the range of 5-7 per cent of the retention price. Their retention prices are in the range of Rs 9,000 per MT to Rs 10,000 per MT. Thus most of the costs of these plants are going towards variable cost and conversion charges, leaving little to generate surplus for carrying out investment which can be used to bring about energy efficiency. These plants would not have survived in a market system. They survived because the RPS did not envisage any exit policy. Any cost of production was supported in this cost-plus pricing regime, so long as the unit could produce fertilisers. This dispensation therefore has resulted in a number of plants having wide diversity in the feedstock choices, energy efficiency, etc. A market system or a uniform pricing system in some manner would have enforced a self-correction. The question, which now becomes relevant in this context is whether we should continue a system which has created a heterogeneous industry and let inefficient units survive.

Exit Policy for Fertilizer Units

The retention price scheme (RPS) has a unitwise focus. Emphasis in the scheme is on production and not on the cost of production. Absence of an exit policy let high cost units be part of the sector and put a premium on inefficiency. An appropriate exit policy would have kept check on units with high cost of production and made the sector efficient. High cost of production is due to the following one or more reasons:

- high consumption ratio,
- use of energy inefficient feedstock,
- existence of very old vintage plants, and
- large workforce.

In RPS urea fertiliser units are given normative life period of 15 years. An exit policy in the scheme should have had a mechanism whereby units which are above 15 years and are producing at high costs, have to go out particularly if their production is not significant. A quick study of retention price data shows that the capital related charges in respect of old units are very low as compared to the new units. However because of their old technology and vintage, their variable cost is very high. The old technology has also contributed to the excessive deployment of workforce in these units. Though there is inefficient utilisation of energy, the retention prices of these units are still comparable with the corresponding retention price of a prospective new plant because of lower CRC. The question in this context therefore is of trade off between an old inefficient plant and an efficient new plant. The incremental cost consideration may be an answer in this respect, as continuation of such units leads to avoidable wastage of natural resources. Since a replacement plant of an old plant will normally have gestation period of three years before production can be expected, such old plants should be allowed only for that period leading to eventual exit.

One of the important reasons for introduction of exit policy is to have energy efficient production. The committee concluded that gas based production is the most energy-efficient, followed by units based on naphtha, FO/LSHS and coal in that order. It also stated that, "existing plants based on naphtha and FO should be encouraged to restructure themselves to move over to the cheaper feedstock". The committee also stated that " future production should be appropriately based on domestic natural gas and LNG". Based on this premise it recommended feedstock differential cost reimbursement (FDCR) for naphtha, fuel oil and coal-based units for a period of five years. The reason for introducing this was to bring an exit policy for high cost units based on inefficient feedstock. The committee did recognise the difficulty for units to abruptly switch over to gas or LNG, for the reasons of mobilisation of requisite investments and also due to inadequate availability of gas. Giving FDCR for five years was to accommodate this difficulty. FDCR, therefore, is an enabling arrangement to bring a semblance of homogeneity in a highly heterogeneous sector.

The DOF had restricted the off-take of urea for production at Rs 7,000 per MT and above in 1997-98.[10] This was to discourage high cost of production. Through this measure the government reserved the right to buy urea beyond 115 per cent of the annual installed capacity of the plant. This had two implications. One that it showed that government would have an option to not take any urea beyond a particular level of production. Second, those units which showed a very high level of capacity utilisation were discouraged to resort to gold-plating. A similar arrangement can also be made part of an exit policy, where the off-take is linked with international price of urea.

Joint Venture Participation Abroad

At present India has a self-sufficiency level of 86 per cent. If the consumption of urea at the end of the Ninth Plan is 326 lakh tonnes (without price correction),[11] the present production of 197 lakh tonnes (1998-99 Est) will be able to meet only 61 per cent of the demand. To maintain a reasonable level, say 70 per cent, of self-sufficiency, domestic supply needs to be augmented to 220 lakh tonnes from the present level of 197 lakh tonnes. The balance 30 per cent can be procured from JVs (10 per cent) and imports (20 per cent). The Hanumantha Rao Committee recommended in its report that "imports should not be viewed merely as a residuary element to bridge the gap between requirement and indigenous production". The committee further recommended that, "initiatives to set up joint ventures abroad near sources of abundant availability of feedstock be encouraged as a matter of policy in the coming years, given the shortage of gas in India and growing demand of fertilisers".

Concessional price of gas is no more available to the fertiliser sector. After the implementation of the T L Shankar Committee report, demand-side pricing is being progressively adopted. This is further going to increase the cost of production. The government should therefore encourage Indian companies as a matter of strategy for increase the aggregate supply of fertilisers by setting up joint ventures in those countries where gas is abundantly and cheaply available. Estimates[12] of cash costs (in $ per MT) of production based on natural gas in some countries are as shown in Table 1.

The costs do not include cost of capital services. But interest rates are lower in these countries as compared to the Indian cost of capital.

From Table 1 it is clear that India has best cost advantage in forming JVs in west Asia, Bangladesh and south-east Asia (Indonesia, etc). Three joint venture projects for production of urea in the west Asia are already on the anvil. These projects are the Oman India Fertiliser project in

Table 1

	Cash Cost	Loading	Freight	Total
Ukraine	117	5	32	154
Former SU	124	5	40	169
West Asia	68	5	15	88
Indonesia/ Bangladesh	65	-	-	-

Oman (14.5 lakh tonnes capacity), IFFCO project in Iran (7.26 lakh tonnes capacity) and SPIC's 3.26 lakh tonnes production capacity in Dubai. The choice of west Asia is particularly better because of its vast proven reserves of gas and minimal transportation cost to India. All the three joint ventures have buy-back arrangements. Of the above, the Oman project has just concluded its financial closure and the project is expected to go in production by the beginning of 2001.

As stated above 10 per cent of demand fulfillment through JVs will amount to procuring 32.6 lakh tonnes from JVs. Oman-India project is likely to give 14.5 lakh tonnes of urea by 2001 (assuming the project goes on the anvil now). Further gap can be filled by the SPIC (4 lakh tonnes) and IFFCO-Iran (7.26 lakh tonnes) projects. But their dates of commissioning are not as yet known. Taking these two projects also as committed projects, the gap can be bridged by setting up another plant of 7 lakh tonnes (a normal sized plant) in a suitable place with buy-back arrangement by 2001-02.

If however price correction is effected between the three nutrients N, P and K, then according to the Ninth Plan working group report demand of urea by 2001-02 (at the end of the Plan) will be 245 lakh tonnes This demand with the present production of 197 lakh MTs will leave a supply gap of 45 lakh tonnes only. In case 10 per cent of the demand is to be met through JVs, production from the three projects, Oman-India, SPIC and IFFCO-Iran, will be sufficient.

A relevant question in this regard, however, is that if there are investment opportunities in the gas abundant areas, is it important that supply by JVs should be from those formed by Indian companies only? One can always arrange to buy from any producer through forward contracts. This becomes particularly relevant as the long term buy-back arrangements from Indian JVs are not at any concessional price but at the prevalent international price. Some of the perceived advantages of Indian JVs are:

(a) certainty of supply by creating national involvement,
(b) forex inflow on account of export of equipment, technical services, construction material etc,
(c) reduced risk of wide price fluctuation and flow of profit from the purchase back to the country as dividends on investment.

But risks of political uncertainty and softening of international demand due to increase in aggregate supply through revival or start of idle capacity[13] in the world may make the JVs unviable.

The committee felt that if long-term contracts for higher level of imports were made, it would not lead to hardening of the international price of urea on a long-term basis. An NCAER study done in 1994 also suggested the same.[14] In fact long term supply arrangement reduce wide price fluctuations and do not put pressure on port capacity which otherwise in the event of bunching of supplies leads to mismanagement. Arrangement for procuring assured supply could also be based on forward contracting. Since need for efficient pricing and risk management is felt by both suppliers and consumers, forward contracting would minimise the risks of supply and volatile price fluctuations. Standardisation of contract terms can be a step in helping this arrangement and would also help in averting the risks associated with such trades. So far Indian buying is not based on forward contracting. They are mostly from spot markets. This in a way firms up the international price if large quantities are to be purchased. But if a schedule of supplies required is made known in advance, future contracting will not be difficult. It will also be efficient.

LNG Availability

India is short of natural gas. The Hanumantha Rao Committee recommended that in the light of the current relative pricing of different feedstock and cost of production of urea, future fertiliser production should be based on domestic natural gas and LNG. Existing plants on naphtha and FO should be encouraged to move to cheaper feedstock. But so far LNG is not available in India.[15] Total investment in setting up LNG facility is Rs 6,050 crore. Minimum economic size for LNG imports at present is 2.5 million tonnes per year, which is equivalent to 10 million cubic Mts of gas per day. This volume of gas is sufficient to provide gas for six urea plants (feedstock and fuel) with a total capacity of 4.6 million tonnes of urea.

Capital costs of LNG facility in the exporting country are estimated to be Rs 4,050 crore which includes purification, liquefaction, transport, export terminal and shipping. This will be equivalent to gas price of $ 2.6 per MMBTU. If natural gas is available at $ 1 per MMBTU, the minimum price of LNG on Indian shore will be $ 3.6 per MMBTU. Capital cost of receiving terminal and regassification is Rs 2,000 crore. Since this supports six urea plants, unit capital charge is Rs 750 PMT of urea. Price of LNG is also dependent on price of its substitutes. A rough estimate suggests that if price of naphtha is $ 170 PMT, the equivalent price of LNG will $ 4.2 per MMBTU.

Total investment as stated above for creating an LNG facility is Rs 6,050 crore. Such huge investment is difficult to commit for one particular company given the resource position in the country and also due to the risks associated with the LNG facility. LNG needs committed and assured forward and backward linkages. Any breakdown in the linkages can jeopardise the facility. Given the problems and the fact that LNG for power sector is in the offing in near future, there are two options available: (a) fertiliser plants become partners with power plants in creating the LNG facility; (b) fertiliser plants themselves from a conglomerate for setting up LNG. The second option has the advantage of being a dedicated facility for fertiliser companies. But given the implications for overall national resources, a detailed study needs to be done on this.

Since setting up LNG facility requires a large investment, government should take the lead and consider setting up a fund or giving one-time capital subsidy for LNG facility. One view can be that funds for LNG facility can come out of the savings of not setting up naphtha plants and instead importing the equivalent quantity of urea. This assumes that imports are cheaper than domestic production. (This is so in reality.) Total payout for naphtha based production every year is normally Rs 400 crore (7.26 lakh MT X Rs 5,500 PMT). Cost of importing 7.26 lakh MT at $ 163 PMT is Rs 475 crore ($ 163 per MT is the long-term price of urea adopted by the Planning Commission). So there are savings in a year out of not setting up naphtha-based production.

Since location of LNG plants, coastal or inland, would have cost implication for the gas at factory gate, cost of pipelines become important. The question of who should bear the pipeline cost, assumes importance in considering whether the pipeline will be a public facility or a private facility. It is learnt that the HBJ pipeline has presently 50 per cent unutilised capacity. If that is so, cost of transport of gas will be Rs 200 per thousand cubic Mts as the existing pipelines are depreciated assets. It would be in the interest of overall national resource use that unutilised HBJ line is used for gas transportation for the fertiliser companies. This will also reduce the gestation period for availability of LNG and may facilitate some of the FO-based companies of NFL in Punjab to switch to gas. This will be in keeping with

the Hanumantha Rao Committee recommendations. But cost implications can be the deciding factor in such switches.

Uniform Pricing System

The Hanumantha Rao Committee recommended uniform pricing system based on LRMC principle. But the industry debunked it on the ground that the fertiliser is a heterogeneous industry and so applying uniform pricing system would not be appropriate. But the basic idea behind any pricing principle is that the prices cover capital and current costs of efficient production in a new plant. Marginal cost pricing in this context is a good solution as it achieves the objective of reasonable return, comfortable liquidity and a bearable price for the consumers, besides being welfare maximising. This also achieves economic efficiency because every good or service meets its long-run marginal cost. LRMC-based prices are also sustainable in contestable markets and are incentive compatible as prices are external to regulated firms. A committee,[16] appointed by the BICP in 1988 to evaluate the LRMC concept, had also recommended applying LRMC concept for price calculations for products, which are homogeneous like fertilisers, cement, petroleum, etc. The discussion paper on 'Administered Price Policy' presented to the Parliament in August 1986 had also stated that in the normal context the level of administered prices should be determined on the basis of the long-run marginal cost principle. It can be argued that for jobbing type of work it may be difficult to apply the LRMC concept because product and product specifications vary which lead to different market conditions. This is also so because it is difficult to forecast the demand of jobbing type of work over a long period. This poses the problem of allocation of investment costs, making it difficult to apply the concept of LRMC with reasonable accuracy.

It is against this background that the recommendations of the Hanumantha Rao Committee to replace the cost-plus approach by LRMC-based prices should be examined. The committee worked out the LRMC price for the new units on the basis of the following parameters:

(a) The committee took the capital cost of the new gas and LNG based units at Rs 1,425.21 crore. The capital cost of Naphtha and FO/LSHS based units was taken at Rs 1,473.67 crore and Rs 1,976.00 crore, respectively.

(b) The committee adopted debt-equity ratio of 2:1 for the new projects. Interest on long-term loans was taken 15 per cent and interest on short-term loans and post-tax return at 16.5 per cent and 12 per cent, respectively. Weighted average cost of capital, therefore, worked out to be 18 per cent.

(c) Repayment of long-term loans was taken by the committee to be eight years.

(d) The committee considered production to be based on 330-stream days and capacity utilisation in the first year to be 80 per cent and in the subsequent years at 100 per cent. Based on this, the annual production for the first year was worked out to be 6.15 lakh MTs and 7.689 lakh MTs during the subsequent years. This assessed level of production is 6 per cent higher than the nameplate capacity of 7.26 lakh MTs.

Based on the above parameters the committee recommended the following LRMC price as the producer's price for the new fertiliser units (in Rs per MT):

	CRC	Operating Costs	LRMC
Gas	3968	3015	6983
LNG	4060	4239	8299
Naphtha	4171	5022	9193
FO/LSHS	5482	4845	10327

For the existing units of urea production, the committee recommended LRMC price taking into account two recently set-up grass roots plants and two expansion plants. On the basis of the price suggested by the committee, it found that only 80 per cent of the existing production would be viable. The viability criterion was however comparison with the existing retention price, which may not be really depicting appropriate cost given the distortions in the RPS. Since in this paper the main focus is on the prospective growth scenario of the fertiliser industry, the discussion will be confined mainly to the recommendations of the committee for new units.

The reason for the industry rejecting the recommendation of the committee was its assessment that the parameters adopted by the committee were unrealistic. It was felt that the norms with regard to new units were tight and could not be considered really achievable if they were compared with the present actual ratios. If these are brought to achievable norms, the modified producer prices may be acceptable to the industry. Some of such unrealistic parameters are:

(a) One example of the adoption of tight norms is that the committee adopted 0.549 (in '000SM^3) per MT of urea as the consumption norm for LNG and gas-based production. This is considerably lower than even the consumption norm of TCL, Babrala (0.60669), which is the most energy efficient plant in India with modern energy saving devices.

(b) Another example is that the committee apparently kept the working capital requirement constant. The impact of increase in operating costs on the working capital requirements was not taken into account.

(c) The committee considered LNG as the most preferred feedstock in the long term given the present insufficient availability of gas and bleak prospect of gas availability in future. It did not detail itself to the question of availability of LNG, which was so central to the recommendation of the preferred feedstock. Further it considered the price of LNG at port locations only and did not give pipe transportation cost for the projects in the hinterland.

(d) The committee did not make any provision for dual feedstock, even though the gas is not adequately available for the existing units and the government has of late been encouraging the units to have dual feedstock facility.

(e) It appears that the committee did not include provision for increase in normal repairs and maintenance with aging of the plant or for normal capital additions, which are needed to keep the plant in a robust condition.

(f) The committee ignored the issues of input sales tax, ceiling on selling expenses, need of captive power plants (CPP), etc in the calculations of the LRMC price.

Other major criticisms of the recommended LRMC price for new units were that it would not be able to generate adequate cash for servicing the loans in the initial years of the project. The recommended LRMC resulted in cash deficit in the initial period because of the high capital cost of the project. The committee also ignored the need for higher rate of return for which the industry had long been clamouring, even under the RPS. Given the above inadequacies in the recommendation of the committee, it is imperative to modify the LRMC price to meet some of the valid criticisms while being in the LRMC framework.

Modification of LRMC Price

Some of the alternatives, which can be suggested for modifying the LRMC price are:

(a) Fixing the capacity utilisation at 90 per cent from the 2nd year to the end of the project life.

(b) Changing the consumption norms.

(c) Changing the rate of return on capital to 20 per cent.

(d) Increasing the operating cost as the operating expenses to cover packing expenses, salary and wages,

consumables and stores, repairs and maintenance and selling and distribution expenses seems to be on the lower side.

(e) Readjusting the price so that adequate cash is generated for servicing the loan (interest and repayment) in the initial years of the project.

Capacity utilisation at 90 per cent: The committee had taken capacity utilisation of new units at 80 per cent in the first year and 100 per cent in the subsequent years. The assumed level of production was taken at 7.68 lakh MTs. This assumed level of production is 6 per cent higher than the nameplate capacity of 7.26 lakh MTs. Since the assumed level of production is itself higher and the expected number of stream days is on the normative basis, capacity utilisation of 90 per cent from second year onwards can be proposed. This will give some cushion to those units whose capacity utilisation is more than 90 per cent on the assumed level of production of 7.68 lakh MTs. In absolute terms, any unit producing more than 6.912 lakh tonnes annually gets the benefit. Further since the basis of calculation of the LRMC price itself undergoes a change, the unit gets higher producer's price.

A calculation taking capacity utilisation to be 90 per cent and using the same parameters as adopted by the committee shows the results shown in Table 2.

Changing consumption norms: One of the reasons for low cash generation and therefore the viability of new projects in the recommendations of the committee was adoption of very tight consumption norms. If we adopt the same consumption norm as that of TCL, Babrala, which is the most recent plant with energy saving devices and thus the most energy efficient plant in India, the results are as shown in Table 3.

Changing the rate of return to 20 per cent: The committee had adopted 18 per cent as the weighted average cost of capital. If this is changed to 20 per cent without changing the other parameters, the variation in CRC for the two options – assuming capacity utilisation at 100 per cent from second year onwards and at 90 per cent – as shown in Table 4.

Increasing operating cost: If the operating expenses are changed suitably to cover packing expenses, salary and wages, consumables and stores, repairs and maintenance and selling and distribution expenses, etc, the variation will be as shown in Table 5.

Rearranging the LRMC payoff: In the LRMC price methodology, the unit gets the same price throughout the project life.

TABLE 2

(Rs per MT)

Unit	At 100 Per Cent Capacity Utilisation			At 90 Per Cent Capacity Utilisation			Percentage Variation
	CRC	Operating Costs	LRMC	CRC	Operating Costs	LRMC	
Gas	3968	3015	6983	4322	3017	7339	5.1
LNG	4060	4239	8299	4414	4241	8655	4.3
Naphtha	4171	5022	9193	4536	5024	9560	4.0
FO/LSHS	5482	4845	10327	5972	4847	10820	5.8

TABLE 3

(In '000SM^3 per MT of urea)

	Existing Norms	Changed Norms
Gas	0.54900	0.61000
LNG	0.54900	0.61000
Naphtha#	0.48300	0.57000
FO/LSHS	0.66332	0.66332

The norms for naphtha are that of IFFCO Phulpur-II.

(Rs per MT)

Unit	At 100 Per Cent Capacity Utilisation			At 90 Per Cent Capacity Utilisation			Percentage Variation
	CRC	Operating Costs	LRMC	CRC	Operating Costs	LRMC	
Gas	3986	3255	7241	4340	3257	7597	4.9
LNG	4088	4615	8704	4442	4617	9059	4.1
Naphtha	4215	5760	9975	4581	5762	10342	0.1
FO*	5482	4845	10327	5972	4847	10820	4.8

* No change has been suggested in the FO/LSHS plants, as the committee considered FO/LSHS as the least preferred feedstock

TABLE 4

(Rs per MT)

Unit	18 Per Cent ROR and 100 Per Cent Capacity Utilisation		18 Per Cent ROR and 90 Per Cent Capacity Utilisation		20 Per Cent ROR and 100 Per Cent Capacity Utilisation		20 Per Cent ROR and 90 Per Cent Capacity Utilisation	
	CRC	LRMC	CRC	LRMC	CRC	LRMC	CRC	LRMC
Gas	3968	6983	4322	7338	4342	7359	4724	7742
LNG	4060	8299	4414	8655	4444	8685	4826	9068
Naphtha	4171	9193	4536	9560	4565	9589	4960	9985
FO/LSHS	5482	10328	5972	10820	5998	10845	6527	11376

Note: There is no change in the operating cost

TABLE 5

(Rs per MT)

Unit	Existing Norms			Changed Norm/100 Per Cent Capacity Utilisation			Changed Norm/90 Per Cent Capacity Utilisation		
	CRC	Op Ct	LRMC	CRC	Op Ct	LRMC	CRC	Op Ct	LRMC
Gas	3968	3015	6983	3998	3405	7403	4351	3407	7758
LNG	4060	4239	8299	4100	4765	8865	4453	4767	9220
Naphtha	4171	5022	9193	4224	5910	10134	4590	5912	10501
FO/LSHS	5482	4845	10328	5491	4995	10487	5981	4997	10979

Note: The consumption norm has been changed as given above.

TABLE 6

(Rs per MT)

Unit	100 Per Cent Capacity Utilisation			90 Per Cent Capacity Utilisation		
	CRC	Operating Cost	LRMC	CRC	Operating Cost	LRMC
Gas	4762	3015	7777	5707	3408	9116
LNG	4872	4239	9111	5843	4769	10612
Naphtha	5005	5022	10027	6022	5913	11936
FO/LSHS	6579	4845	11424	7844	4999	12843

which may not be enough to meet the cash requirement during the initial years of the project. There is normally larger requirement of cash in the initial years of the project due to high project cost, due to large cash outflow on account of interest on long-term loan and repayment of loan. But this requirement is on a diminishing balance and is over at the end of the long-term loan repayment period, which was taken by the committee to be eight years. Therefore the LRMC price can be rearranged such that the cash flow problem is taken care of during this period. This does not increase the overall cash outgo, as NPV of the project over 15 years is kept constant.

But if we change average capital cost, consumption norms and operating ratios to the level suggested above there will not be any need to rearrange the new LRMC price which will be as shown in Table 6. This new LRMC price will make the cash position positive – in five years' time if 100 per cent capacity utilisation is adopted from second year of operation, and in three years' time in the other case if 90 per cent capacity utilisation from second year of operation is adopted. This cash flow would take care of loan repayment, short-term and long-term, dividends and dividend tax, corporate tax, etc. This will also generate enough surpluses at the end of the project lifetime, i e, 15 years, which will finance expansion or add new capacity.

Apart from the above increase in the LRMC price, there are certain other benefits, which have not been quantified here but are available to the units even otherwise, which should encourage new capacity addition. For example, the committee adopted provision for tax by taking depreciation on straight-line basis, based on 15 years life. But income tax law provides for depreciation on written down value (WDV) basis. This would help in saving tax payment and thereby help in generating additional funds during the initial years. Further, the LRMC price itself would require periodical review depending upon change that may take place in the input prices from time to time. The committee has recommended that no compensation up to 5 per cent increase in input prices need be given and the unit should absorb the increase. But this limit seems to be high and may put the industry in liquidity problems. Thus a suitable limit for review can be considered.

Conclusion

An attempt has been made above to explain and remove some of the deficiencies of the recommendations of the Hanumantha Rao Committee. The above suggestion of modified LRMC price is likely to remove some of the valid criticisms of the report by the industry. But it in no way suggests that the country should maintain the existing high level of self-sufficiency in fertiliser production. The argument that import should not be viewed merely as a residuary element to bridge the gap between demand and supply on year-to-year basis is still valid. The recommendation of the committee that joint ventures with buy-back arrangements should be encouraged to take advantage of the low cost of production in Gulf countries is another means of augmenting supply in an assured manner. But if marginal production is needed to be set up in the country for some reason, the new LRMC price will encourage entrepreneurs to set up new plants which will ensure a guaranteed price for a period of 15 years. This price will ensure operation of the plants on attainable efficiency norms and give positive signals for future growth of the industry. The new capacity should be based on natural gas and in its absence on LNG. But before LNG is available, many steps are needed to tie up funding, backward and forward linkages of procurement and supply, etc.

Notes

1 Between 1982 and 1990, the prices of inputs for fertiliser production increased substantially, but there was no increase in fertiliser prices (see Table A). If one compares the increase in fertiliser prices with those in foodgrain prices, one finds that the growth in foodgrain prices have far exceeded that in fertiliser prices. In a sense therefore, the real cost of fertilisers to farmers has declined over time (see Table B)

Table A: Increase in Prices of Fertiliser Inputs, 1982-90

	Per Cent Increase in Prices
Natural gas	300
Railway freight	200
Power	148
Coal	130
Imported phosphoric acid	74

Table B: Growth in Prices of Foodgrains and Fertilisers

	Price (Rs per quintal) 1980-81	1990-91	Per Cent Increase
Foodgrains			
Paddy	105	230	119.0
Wheat	117	225	92.3
Gram	145	450	210.3
Sugarcane	13	24	84.5
Coarse cereals	105	205	95.3
	Retail Price (Rs per tonne) 1980-81	1990-91	Per Cent Increase
Fertilisers			
Urea	2000	2350	17.5
DAP	3050	3600	18.0
MOP	1100	1300	18.2

2 Kirit Parikh had argued that exceptionally high rates of capacity utilisation in some of the urea units is a clear evidence of gold-plating (*Economic Times*, May 26, 1997) But a report of ING Bearing ('Retention Prices for Fertilisers: Failing to Catalyse New Investment', November 1996) had noted that the capital cost of a urea plant in west Asia is about the same as that of the same capacity plant in India.

3 The Planning commission stated before the Joint Committee on Fertiliser Pricing that, "...The system does not provide enough incentive for continued improvement in technological norms and energy consumption" See Report of the Joint Committee on Fertiliser Pricing, August 1992.

4 The industry feels that the committee did not take a holistic and objective view of the various pluses and minuses. Huge under recoveries due to heavy disallowance in initially fixing investment for pricing, repairs and maintenance and other operating costs made a deep dent into the profitability and even led to losses at normative production levels See 'Comments and Observations Report of the High Powered Fertilisers Pricing Policy Review Committee', *Fertiliser Marketing News*, May 1998

5 'Pricing Policy for Urea Manufacture', a study of pricing system, make-buy options and feedstock and location choices by a group of economists for the Hanumantha Rao Committee, September 1997 (unpublished).

6 Import price of US $ 163 per MT was adopted as the long-term price of urea by the Planning Commission in the Working Group report for the Ninth Five-Year Plan on fertilisers.

7 'Comments and Observations', *Fertiliser Marketing News*, May 1998

8 Ibid

9 Ibid.

10 Vide Notification No 12012/12/97-FPP-II, October 13, 1998

11 Working Group Report of the Planning Commission on Fertilisers for the Ninth Five-Year Plan.

12 CRU International, 1996, and *World Nitrogen Survey*, 1994.

13 Idle capacity in the world as per the FERTECON report on 'The Outlook for Ammonia and Urea Prices' is about 13 per cent.

14 NCAER study, 1994

15 Energy consumption for production of one MT of urea are LNG and Natural Gas 5.07 G Cal, Naphtha 5.10 G Cal and FO 6.57 G Cal Cost of feedstock for production of one tonne of urea are natural gas Rs 2,161, LNG Rs 3,285, naphtha Rs 4,057, FO Rs 3,921

16 S N Chattopadhyay Committee, BICP, August 1988

On Education Guarantee Scheme in Madhya Pradesh

Rahul

GOPALAKRISHNAN and Sharma (G and S) have made tall claims in favour of the Education Guarantee Scheme (EGS) being run by the government of Madhya Pradesh (GOMP) (*EPW*, September 26, 1998). They assert that this scheme has gone a long way towards universalising primary education in tribal areas at a very low cost without compromising on quality, while at the same time empowering local communities to demand and get education for their children. The reality, however, is considerably more dismal and so the record needs to be set straight so as to ensure that the poor tribals of Madhya Pradesh (MP) are not short-changed by a typically publicity hungry administration.

Even though G and S have harped continuously that the EGS has not compromised on quality, they have not bothered to define exactly what they mean by quality education. Since they have situated themselves in a practical rather than an idealistic context and have spoken of rights and equality, we can assume that quality education would be that which can give the poor, especially tribals, the expertise to compete and get into elite professions like engineering, medicine, computers, management and the like at the end of their schooling. At the primary level this would mean a sound grounding in language and numeracy skills to start with and comfortable proficiency in scientific reasoning techniques by the time they reach class five.

Unfortunately, this is non-existent throughout the thousands of government schools in the state. The reason is that the teachers at the primary level are not competent or committed enough and are also hopelessly outnumbered by the students. An NGO Eklavya has, for the past decade or so, been trying to innovate both with syllabi and teaching methods at the middle school and primary levels to bring about some improvement. Despite some very good work, they have not succeeded much. The main reason is that most of the teachers, after being trained in the new methods, do not follow them once they go back to teaching the children in school. Good teaching is painstaking work and the average teacher is a government servant who does not like to take pains. In fact what he does is conduct private tuitions instead. The net result is that over the years the quality of teaching in government schools has become abysmal. It is not for nothing that costly private schools, to which a considerable number of parents send their children, including G and S, have mushroomed all over MP.

The responsibility for education in tribal areas in MP lies with the tribal department. The teaching of tribal children is more difficult because their mother tongue is not a dialect of Hindi and they reside in remote areas. So the teachers are given an increase in the salary as on incentive. Nevertheless, the level of absenteeism among teachers is horrifying. Not surprisingly, the schools in the tribal areas are in an even worse shape than those run by the education department. The teachers recruited for the EGS are mostly local boys or girls who have been forced to drop out of the malfunctioning formal government school system at the secondary or higher secondary levels because that was as far as they could get by parroting examination guides. To say that such people can provide quality primary education after an induction training of just 12 days at a cost of a paltry Rs 610 and on a monthly salary of a measly Rs 500 is to ask *EPW* readers to willingly suspend their disbelief.

Contrary to what G and S claim, panchayati raj in Madhya Pradesh has not empowered the local people but has formally extended the arm of the state into the villages. The sarpanch has effectively become the representative of the state, both for implementing the numerous pseudo-developmental schemes of the government and also to suppress any genuine protest against its anti-people policies. Local leaders see the posts of sarpanch, janpad adhyaksha and jiladhyaksha as training grounds for becoming legislators and parliamentarians. This is not the place for a detailed criticism of panchayati raj in MP, and so suffice it to say that the panchayats are in reality not free of the bureaucracy as claimed by G and S. So, like many other schemes being implemented by the panchayats, the EGS too has emanated from the chief minister's secretariat. The sarpanches were told to get going and find suitable boys or girls to take on the onerous responsibility of providing quality education to those deprived of it in remote areas of MP. These selected persons then went round a hamlet collecting the names of those children who would attend the schools and thus sprang up the thousands of schools and lakhs of students of the glorified EGS. A far cry indeed from the picture of an enlightened government responding to the conscious demand for education from empowered parents of deprived children that G and S paint.

What is happening in these EGS schools, if they are at all running, is that children are learning the Devanagari alphabet and counting up to hundred. Insofar as previously even this was not happening, the EGS is indeed an improvement. But to infer from this that this is a revolutionary new development that is going to finally solve the vexatious problem of universalising primary education is to grossly exaggerate its potential and underestimate the hurdles that lie ahead. It is one thing to teach children the alphabet and counting at just Rs 8,500 a year per school and quite another to equip them with a solid grounding in language, mathematical and scientific skills for the future. Like the total literacy campaign and the non-formal education scheme, the EGS too has begun to falter after the initial stages. A fact that G and S have not seen fit to disclose in their article.

The EGS in fact is yet another disturbing manifestation of the GOMP's decreasing commitment towards providing true quality education to the people. From 1995-96 onwards all recruitment of school teachers has stopped and instead a Shikshakarmi scheme has been started in which initially teachers were recruited by the block level panchayats at a salary of Rs 600 a month. The recruited people went all the way to the Supreme Court demanding better service conditions. Subsequently, on the direction of the Supreme Court, slightly better salaries have been provided for those recruited recently in the newer version of the scheme. But there is going to be a vast gulf between them and the existing government teachers who will get paid in accordance with the recommendations of the Fifth Pay Commission. By palming off the responsibility of education up to the secondary level to the panchayat system, the GOMP is killing two birds with one stone. It is saving immensely on the cost of education while at the same time gaining kudos for having decentralised its functioning. The EGS has recently been awarded the prestigious Commonwealth prize.

These are expensive times in which even onions are selling at Rs 50 a kilo. Quality education requires a lot of resources in terms of time, money and genuine innovation. There has been a sad lack of these throughout more than five decades of independent governance in India. Now things have taken a more sinister turn with the government not only washing its hands off providing formal quality education to the poor but declaring that ripoffs like the EGS are harbingers of a new educational dawn for the deprived and downtrodden masses in the approaching millennium.

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The Sir Ratan Tata Fellowship

The Sir Ratan Tata Foundation at the London School of Economics & Political Science (LSE) invites applications for the third 'Sir Ratan Tata Fellowship'. Applicants should be established scholars in the social science discipline with experience of research on the Indian sub-continent. The Fellowship is not intended for students registered for a degree or diploma.

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3. The Fellow will be expected to engage in research on a topic under the following themes:
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   - Comparative Studies with a South Asian perspective
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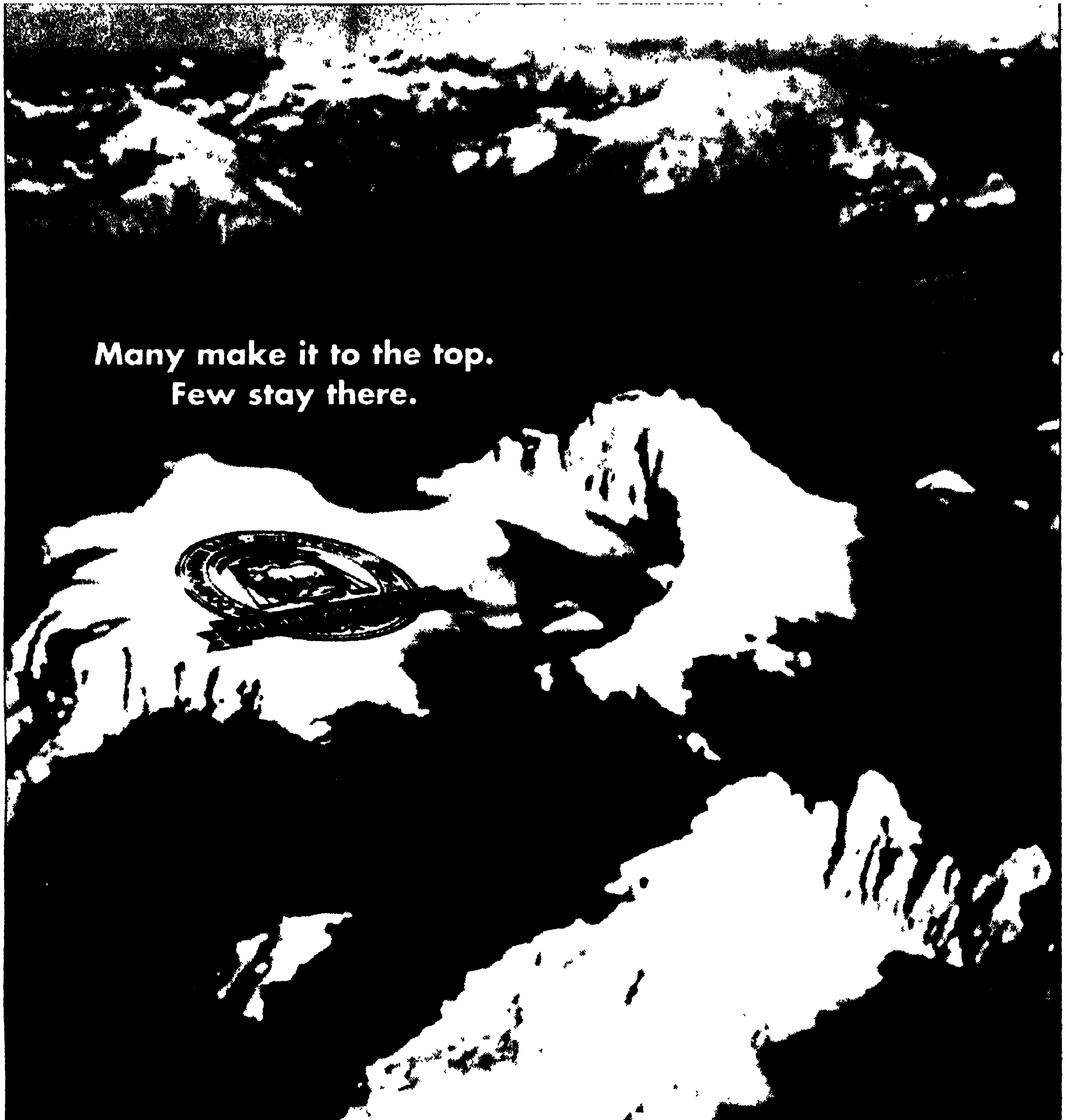

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Money, Banking and Finance

Discussion of the real and monetary aspects of short-run structural adjustment using a flow-of-funds methodology and, based on such a framework, specification of an analytical basis for integrating the financial programming model of the IMF with the financial requirements approach of the World Bank in a manner which removes the existing dichotomies between the real and the financial sectors of the economy. **99** Successful inflation targeting requires credibility of the enforcing agencies and credibility in turn requires that the target be chosen carefully. A review of the inflation targeting experience so far and its lessons for India. **115** With the progressive market orientation of the financial system and growing international capital flows, it needs to be considered whether the monetary targeting approach is likely to ensure internal and external stability when the avowed objective of policy is to de-emphasise reserve requirements as an active instrument of policy. **123** Discussion of the potentially stabilising role of monetary policy in two cases: in the first, the monetary authority operating the discount window and in the second, entering as a player with the interest rate on government paper as a strategy. Relative merits of the two policy regimes. **133** While the RBI has sought to correct the distortions in the yield rates on government debt, it has not addressed the question of high interest rates on commercial sector bonds. **74** RBI data bring out the endogenous nature of money supply in India where a paradigm of mixed portfolio loan model is in operation, implying the importance of the policy stances of the monetary authority and private initiatives of banks in money supply determination. **139** An efficiently functioning Treasury bills market sets the tone for transmission of policy signals to decision-making agents in the economy. A preliminary attempt to model the cut-off yield for T-Bills. **145** Narrowly interpreting a sound banking system to mean prevention of bank failures, regulators examine the riskiness of banks' assets and the adequacy of their capital. But do rigid capital adequacy ratios ensure adequate bank capitalisation in reality? **155** The Indian commercial banking sector is characterised by both a high average non-performing share in total bank advances and a high dispersion among banks. An attempt to explain inter-bank variations in NPAs for 1996-97. **161** Transformation of the rural branches of public sector banks may be an alternative to their closure or gradual substitution by private banks. The Indonesian experience may hold useful lessons for India in this context. **169** The focus of strategies to develop the rural credit delivery system has to be on sustainability and viability, operational efficiency, recovery performance, small farmer coverage and balanced sectoral development. **175** Between 1993 and 1996 state intervention had a profound impact on the quality of the Indian equity market. The two central questions in the reforms agenda for the equity market now concern the initiation and expansion of exchange-traded derivatives and a complete transition to rolling settlement. Going beyond the equity market, the principles of market design and the institutional arrangements which have proved successful for the equity market can be fruitfully applied in three other areas: the market for government debt, the currency market and commodity markets. **183** A comparative study of price dynamics in the Bombay Stock Exchange and the National Stock Exchange. **195** In the international financial system, following rapid consolidation and institutional changes, we are witnessing the highly concentrated power of a progressively smaller number of market participants, making the financial system a perennial breeder of systemic risks. **95** The experience of the east Asian countries has underscored the dangers of unregulated capital mobility so long as a country does not have the institutions to handle these flows efficiently. **213** Overview of life insurance operations in India and the emerging strategic issues in the light of liberalisation and the impending private sector entry into insurance. **203** Money, banking and finance: Special Statistics. **218**

Attacks on Christian Community in Dangs

THE eruption of violence in Dangs on December 25, 1998 which has caught the attention of the national and international media is not a spontaneous or sudden development. During the last one year there were 20 instances of attacks on tribal Christians and their prayer halls carried out by the Hindu Jagran Manch (HJM), Vishwa Hindu Parishad (VHP) and Bajrang Dal (BD) combine and backed by the BJP. But the government and the local administration had refused to take any action. These attacks were accompanied by systematic, virulent and malicious propaganda through handbills and series of meetings in and around Dangs. The chief minister of Gujarat as well as the local authorities were informed about these attacks by the local tribal Christian community through a number of memoranda and complaints.

The main propaganda has been that the Christian missionaries and their institutions are resorting to conversion of the gullible and innocent tribals through force and inducements. However not a single case of conversion through inducement or force has been recorded in Dangs to date – a fact which even the government of Gujarat has conceded in its submissions to the National Minorities Commission.

The attacks and malicious propaganda against the tribal Christian community carried out by the HJM, VHP and BD combine before December 25, 1998 had already created a communally surcharged atmosphere in the Dangs. On hearing of the proposed rally on Christmas day by HJM the local tribal Christian community and the Dakshin Gujarat Lok Adhikar Sangh, a civil liberties organisation, formally requested the district collector not to give permission for the rally on Christmas day. These requests went unheeded and the rally and the public meeting were allowed to take place. Anti-Christian slogans and speeches were made by the leaders of HJM, VHP and BD.

The consequences turned out to be as expected. After the rally and the meeting the activists and the members of HJM, VHP and BD combine went on a rampage in Ahwa town damaging shops owned by Christians and Muslims and Christian educational institutions. The police had to resort to lathi-charge and burst tear-gas shells. Subsequently, the members of Christian community and their prayer halls were attacked in remote and far-flung villages of the district by the same activists who had dispersed in different groups after carrying out the attacks in Ahwa town. Between December 25, 1998 and January 11, 1999 a total of 24 attacks on prayer halls, nine physical attacks on individuals and eight attacks on houses and educational institutions have been recorded. All these attacks were carried out during the night and involved groups of 50 to 60 persons and took place in villages where there are few tribal Christian families. In some instances, some government employees were involved and government vehicles were also used.

The constitution of peace committees and the visit of the prime minister does not seem to have had any effect on the activists of the HJM, VHP and BD combine. If anything, the prime minister's call for a national debate on conversions has further emboldened these forces to intensify their anti-Christian activities in Dangs. These forces besides setting fire to two prayer halls immediately after the departure of the prime minister have also begun intimidating the already terrorised tribal Christians to adopt Hinduism. And those who refuse to adopt are threatened with social boycott, burning of their houses and denial of all government benefits due to them as members of scheduled tribes.

The Dakshin Gujarat Lok Adhikar Sangh and the undersigned members are of the view that the attacks on the tribal Christian community of Dangs is part of the broader plan of the Hindu fundamental forces to subdue and suppress the rights of the religious minorities of India. By this they also intend to paralyse the activities of the Christian missionaries who have contributed towards making the tribal communities in south Gujarat conscious of their social, economic and political rights.

Paresh Choudhary, Satyakam Joshi,
Prafulbhai Choudhary,
Madhuben Choudhary,
Rameshbhai Vasava,
Stany Pinto, Naginbhai Rabari,
Jayram Gosami.

Dakshin Gujarat Lok
Adhikar Sangh,
Vedchi, Valod.

Saving the 'Family Jewels'

REDUCING government shareholding in public sector enterprises was supposed to be a way of freeing these enterprises from bureaucratic control and rendering them more viable commercially. The prolonged sound and fury signifying very little over what has come to be known as PSU disinvestment, especially in the last nearly one year of the BJP-led coalition government, has shown how loath politicians and bureaucrats are to accept any dilution of their overlordship of government companies. But then this was not altogether unexpected. What has come as something of a revelation of late is the manner in which government control precisely is sought to be used to steamroller schemes of so-called disinvestment which have nothing to do with improving the business efficiency and performance of public enterprises but have an altogether different objective in view: raising budgetary resources for a severely cash-strapped government.

In just the last few months a series of such schemes have been put on public view. There was the idea of fabricating a 'special purpose vehicle' to which a certain proportion of the government's shareholding in public sector companies was to be transferred. This was followed by the proposal to 'warehouse' the government's shares with public financial institutions. Both schemes were founded on the use of governmental muscle to 'persuade' financial institutions to put up the money to pay for the shares to be transferred from the government. In the event neither scheme got anywhere, ostensibly because the mechanics of the transfer of the government's shares could not be satisfactorily worked out, but as much or more, one suspects, because the politicians in power and bureaucrats were unwilling to countenance even a nominal reduction in government shareholding and they were able to orchestrate shrill cries in political and other circles against the perfidy of disposing of 'family jewels'.

Other artifices were soon devised to yield funds for the budget without touching government ownership of public sector companies. In a remarkable metamorphosis, the proposed legal enactment to permit companies to buy back their own shares, which was supposed to have been mooted in response to the demand of industrialists and business houses and was advertised as a vital measure to revive the stock market, suddenly came to be seen as the answer to the government's prayers. So legislative formalities were short-circuited forthwith and an ordinance was promptly issued to legalise buy-back of shares by companies. It hardly seemed to matter that, quite contrary to the original expectations, not many businessmen queued up to take advantage of the measure which also seemed to have had little impact on the stock market. What did matter was that public sector companies could be told now to buy back their own shares from the government, thereby providing funds to bridge the budgetary gap even as government ownership of them was retained intact.

And now this Wednesday, with just 10 weeks left of the fiscal year and desperate to window-dress the budget due at the end of next month, the cabinet, with the prime minister presiding, once again urgently turned its attention to disinvestment of government shares in PSUs. A list of six companies was drawn up which would be asked to buy shares held by the government – either their own or, as yet another innovation, those of other companies in the list, to create cross-holding of shares, but pumping money into the government's coffers in either case. The plans drawn up for just these six companies will, it has been officially stated, enable the government to achieve and even exceed the target of raising Rs 5,000 crore from disinvestment in this fiscal year. It is evident that a single consideration has dictated the choice of the particular companies: their ability to cough up the cash to pay for the government's shares. Not surprisingly, three of the companies are from the oil sector and two from telecommunications. That these also happen to be sectors of the economy calling for large investments and so draining these PSUs, which because of their dominant position in the respective industries have to provide much of these investments, of funds to the tune of Rs 5,000 crore or more at this juncture has serious adverse consequences for growth does not seem to have bothered the government.

The prolonged muddle over the sale of the government's shares in PSUs is faithfully reflected in the multiplication of agencies and committees entrusted with responsibility for the task. At this week's cabinet meeting yet another cabinet committee was set up to decide on the pricing of the shares of companies chosen for disinvestment. Would this committee replace the existing cabinet body designated as the group of ministers on disinvestment? No, it has been promptly clarified officially, it would not, lest the ministers who have not found a place in the new committee should feel aggrieved. Of course, the so-called core group of secretaries on disinvestment continues to burn midnight oil. The once high-profile Disinvestment Commission too remains a fixture, though its chairman has been largely reduced to dispensing *obiter dicta* on economic policy from diverse public platforms and one of its members the other day disclosed in a press statement how he had stopped attending the commission's meetings since July last. But does all that matter? The 'family jewels' are safe after all.

SCIENCE

Research and Ethics

HISTORICALLY science and ethics have had a difficult relationship. The great experiments in science or medicine that advanced humankind's knowledge of nature and provided ways and means of harnessing its forces for so-called human good were not subjected to the queries which we are increasingly forcing ourselves to ask: Is the particular scientific endeavour relevant? Will the product of the research do more harm than good? Who will benefit? How and on whom has a test of the efficacy of the particular solution been performed? These are not, let us admit, easy questions to answer. For there are genuine fears of the creative impulse which prompts major discoveries or inventions, often read as having been serendipitous, being straitjacketed if one were to posit questions about the relevance of a piece of knowledge or for that matter a product yet to emerge. Not surprisingly then modern societies have waited till disasters take place to set in motion inquiries on ethical issues in the field of science and technology. If the atomic bomb on Hiroshima and Nagasaki prompted debate on the disastrous applications of nuclear science, the Nazi medical experiments on human subjects prompted in time the Nuremberg Code of 1947. This was followed in 1964 by the Declaration at Helsinki. The codification of ethical principles in medical science has seen much development since then necessitated by developments in the field. In the 1980s, with the rapid growth of human genetics research and of reproductive technologies, committees were set up in several countries to codify ethical principles as applicable to the field.

In India, while there has existed since 1980 a policy statement on ethical considerations involved in research on human subjects, it has been followed more in the breach. Since it has been merely a statement, non-compliance with the guidelines has not been punishable in any way. In fact, even the primary recommendations, such as the setting up of ethical committees, have been flouted in the Indian Council of Medical Research's own institutions, if not in letter then in spirit. The setting up of a central ethical committee on human research (CECHR) in 1996 under the ICMR was long overdue and raised expectations of a better ordered ethical environment for the conduct of medical research involving human subjects and, as a fall-out, of all research. Four sub-committees were set up under the CECHR for drawing up detailed guidelines for human genetics research, transplantation research including foetal tissue transplantation; clinical evaluation of drugs; and epidemiological research. In late December 1997 draft reports of the five groups were supposedly released for wide circulation and subsequent national debate for finalisation. And expectedly, while the forms of democratic debate have been adhered to, in reality the drafts have had limited circulation and the public debates, by all accounts, have been in most cases finely tuned and tailored affairs. Even the selection of the members of the sub-committees, it has been pointed out, reflects an antipathy to widening the debate on these issues. For instance, that the members of the sub-committees are all metro-based medical practitioners or health bureaucrats has caused some comment. There is little or no representation of doctors in research or public health or for that matter social scientists or health activists.

While no doubt the drafting committees have drawn upon the relevant codes in different countries, it is unlikely that they have even acknowledged the debates on some of theses issues within the women's and the international health movements. The issue of assisted reproduction has, for instance, generated much debate in the women's movement focused on the woman's health and rights. The ethical guidelines drawn up by the ICMR committee appear to give no special consideration to such issues as women's control over the technology nor do they even seem to be aware of a women's perspective on health issues. For instance, at a meeting to consider the ethical dilemmas in testing microbicides as a new preventive alternative for individuals who do not wish to use condoms, an international meeting posed the issue that in examining the efficacy of the product social considerations also need to be taken into account. Participants argued that "examining questions related to product use (e g, formulation preferences, safety concerns and partner reactions) is absolutely critical to determining the real efficacy of a user-dependent product like a microbicide". Thus was emphasised the need for social science research components to be associated with clinical research. This is an aspect that needs to be given serious consideration at all levels of research using or affecting human subjects.

For too long medical research has viewed human subjects simply as replacing animal models in the laboratory. In effect, human society, notionally, becomes a large laboratory with human beings as subjects for experimentation. Not surprisingly, norms in the higher phases of clinical trials flounder because they encounter individuals who are both agents and subjects of social organisation and unlike animal models expect to have some say and control over the experimentation, even if circumstances may force them to eventually abandon such expectations. This is possibly why the notion of informed consent instinctively raises the hackles of medical researchers and has churned up so much debate over the decades. The act of offering the right over the process of experimentation, in however limited a way, to the 'subject' is outside the scientists' perception of scientific research, conditioned as they have been to the rigid compartmentalisation of science and society. If research has indeed to be of relevance "for the advancement of knowledge and for the benefit of all members of the human species and for the ecological and environmental well-being of the planet", this perspective must change radically. In the absence of such a change, mere statement of general principles as is available in the draft guidelines of the ICMR will be meaningless. The codification of ethical norms in scientific research is the first step towards recognising the primacy of people and their societies over research objectives. As such, the task of the CECHR in formulating the ethical guidelines and of the ICMR in now taking forward the debate and integrating ethical principles in its activities has far-reaching consequences. It would be a pity if the Council fails to broaden and sharpen the scope of the debate such that people are seen not as subjects of research but as participants in the project.

INDONESIA

More of the Same

Jan Breman writes:

PRESIDENT Habibie of Indonesia lacks all credibility as a democratising successor to Suharto's dictatorship. So far no rupture has come about in the intimate relationship with his former boss whom he served for long with utter loyalty and also with much profit for himself. Right from the start it was clear that Suharto had selected Habibie from among his circle of stooges in order to guarantee continuity and to conceal the crimes and fraudulent practices of the New Order regime. Habibie adopted the pose of being a transitional figure and, in reaction to the call for *Reformasi*, pretended to be the inspiring light of the nation's Democratic Awakening. During last year's turmoil, Indonesian students never trusted him and quite rightly so. The debates held in mid-November in the Consultative People's Assembly (MPR) ended without conceding the main demand of the opposition: to dismantle the political power of the armed forces. The sole protest was voiced by members of the only opposition party (PPP) who had to walk out of the assembly in order to get their dissent put on public

record. Street demonstrations were countered with much greater violence. The bosses of the dominating Golkar Party mobilised gangs of mercenaries to assist the military in restoring 'law and order'. In addition to a dozen students, a few of these mercenaries lost their lives. A 20,000 rupiah note was fixed to the body of one who had been beaten to death by an angry mob, to illustrate the underhand payments made by the regime to such squealers. Moreover, the press this time has dared to draw attention to *agents provocateurs* among the demonstrators who incited the throng to loot and burn shops and exhorted the students to storm public buildings. What obscure forces are behind these acts of provocation that are meant to create a state of anarchy? No doubt the same hidden hand that was instrumental in the explosion of violence in the middle of May last year. These machinations are mentioned in a report written by an official team of investigators. Their findings are so sensitive that they have not been able to present their report formally to the authorities. No minister or general could be found willing to accept the official document.

A number of political activists were detained in the slip-stream of the latest turbulence in Jakarta. They drew up a public statement protesting against the undemocratic proceedings in the consultative assembly. Those accused of subversion against the state were all VIPs such as Sukmawati Sukarno (one of the daughters of the first president of the nation) and Ali Sadikin, ex-governor of Jakarta and former marine commander. It was no coincidence that marine detachments stood between military troops who were ready to shoot and the peaceful student demonstrators.

All this signifies a lack of unity among the political elite and even within the army. Habibie has lost whatever legitimacy he had and pressure for him to step down is mounting. Although widely considered a political lightweight, he is nevertheless a shrewd operator who keeps the opposition divided – not such a difficult task in view of the 106 parties that have registered for the parliamentary elections in early June this year – and is willing to use more brutal intimidation if necessary.

Little comment has been made so far about the support given to Habibie by agents of foreign business interests. Indonesia's external debt, already staggering, has further increased in recent months following the new loans extended by World Bank and IMF. Their bailing-out operation might later be seen as throwing good money after bad. Habibie has expressed his gratitude for this new lease of life, claiming rather naively that the billions of dollars handed out are indicative of the restored confidence abroad in Indonesia's economy. This 'aid' has not been utilised, however, to alleviate the growing misery of the ordinary people, but to shore up the rupiah so that foreign investments made in the past would not need to be written off as bad debts. The monetary inflow seems to have helped: the Indonesian currency is now valued at 7,500 rps per US dollar, half the amount that had to be paid when Suharto exited. Capital gradually seems to have become bankable again, while labour remains just as redundant as before.

Early in 1998 the IMF insisted that all subsidies on daily needs such as rice be removed, causing food riots throughout the country. This was the logical but unanticipated outcome of structural adjustment rather than a clever move to engineer the downfall of a tyrannical leader. Having learnt their lesson the major aim of IMF/World Bank is now to back Habibie. Both agencies provide us with 'good news' on the Asian economies. Does this also refer to Indonesia? Most certainly, thanks to 'our man in Jakarta'. Habibie represents a government policy which attaches low priority to combating the immiserisation of the people, avoids registration of massive unemployment for fear of fuelling unrest and introduces the badly needed 'social safety net' only on paper. More than half the population was below the poverty line and that percentage is still increasing. The meltdown which was earlier labelled as *krismon*, the monetary crisis, has now aggravated into *kristal*, total crisis. The social turmoil caused by the economic collapse is expressed along religious and ethnic lines. Such conflicts which have been reported from different parts of the country undermine the foundation of the nation state.

Reactions outside Indonesia to events in that country are contradictory. On the one hand, strong agreement with the harsh dictate imposed by IMF, which was inspired exclusively by monetary considerations, and, on the other hand, mute protests against the brutalities suffered by demonstrators and dissidents. The lack of political stability in Indonesia will endure at least until the elections for a new parliament in four months from now. The only concession that Habibie has made is that he will immediately call a meeting of the Constitutive People's Assembly in order to elect a new president. He considers himself to be the most eligible candidate for the post. Aided and abetted by his foreign patrons, he might indeed come back for a new five-year term in office. He wants to realise his dream of a New Indonesia where, in the next generation, 95 per cent of the people will belong to the middle class, 2 per cent will be super rich, and only 3 per cent will lag behind in poverty. Some dream!

Developments in the financial system have been mixed. While equity issues have dipped low, funds raised by corporates through bond issues, private placements in particular, have increased sharply, with public sector undertakings accounting for the bulk. Banks deposits continue to grow by about 18 per cent annually. Resource mobilisation by UTI and other mutual funds, whose operations are linked to the capital market, has been poor, but NBFCs' deposits have risen from 9 per cent of bank deposits in 1990-91 to 25 per cent in 1996-97. Banks' assets as percentage of total assets of banks and FIs, which had fallen from 74 per cent in 1981 to 63 per cent in 1992, have generally remained unchanged since then.

Macroeconomic Indicators

Index Numbers of Wholesale Prices (1981-82 = 100)	Weights	Jan 2, 1999	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
All Commodities	100.00	354.8	-0.9	5.0	5.6	5.3	5.5	5.3	6.9	5.0	10.4
Primary Articles	32.30	383.9	-2.8	8.9	4.8	10.4	7.0	5.5	7.0	5.4	12.7
Food Articles	17.39	443.2	-4.7	8.8	5.1	12.7	7.8	4.0	9.6	9.8	11.9
Non-Food Articles	10.08	389.0	0.5	12.0	4.1	9.1	5.8	8.5	3.5	-1.9	15.5
Fuel, Power, Light and Lubricants	10.66	382.1	*	1.2	13.0	-0.5	9.4	11.4	16.9	3.7	2.4
Manufactured Products	57.04	333.2	0.2	3.4	4.7	3.4	3.9	4.0	4.9	5.0	10.7
Food Products	10.14	346.4	0.7	4.8	8.4	6.3	7.0	5.5	14.1	-0.7	8.1
Food Index (computed)	27.53	407.5	-3.1	7.5	6.1	10.6	7.5	4.5	11.1	6.3	10.6
All Commodities (Average Basis) (April 4 - January 2, 1999)	100.00	352.0	–	7.0	5.3	7.5	4.7	4.8	6.4	7.8	10.9

Cost of Living Indices	Latest Month[11]	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
Industrial Workers (1982=100)	438.0	1.2	19.7	4.9	15.3	4.3	8.3	10.0	8.9	9.7
Urban Non-Man Emp (1984-85=100)	350.0	0.9	15.5	5.2	12.2	4.1	7.2	10.2	8.2	9.9
Agri Lab (1986-87=100) (Link factor 5.89)	310.0	2.0	18.3	*	14.0	*	3.8	10.5	7.2	11.1

Money and Banking (Rs crore)	Jan 1, 1999	Variation: Over Month	Over Year	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96
Money Supply (M_3)	925963	4310(0.5)	151067(19.5)	100574(12.2)	73048(10.4)	123451(17.6)	97841(16.2)	72581(13.7)
Currency with Public	160429	-679(-0.4)	18958(13.4)	15246(10.5)	9384(7.1)	13095(9.9)	13829(11.7)	17577(17.5)
Deposit with Banks@	762071	5062(0.7)	131844(20.9)	85469(12.6)	63660(11.2)	110036(19.4)	84162(17.5)	55042(12.9)
Net Bank Credit to Govt	380122	256(0.1)	62422(19.6)	49502(15.0)	29080(10.1)	42000(14.6)	30840(12.0)	35360(15.9)
Bank Credit to Comml Sector	455976	9114(2.0)	53687(13.3)	23786(5.5)	25982(6.9)	55883(14.9)	31659(9.2)	51925(17.7)
Net Foreign Exchange Assets	138098	1584(1.2)	19958(16.9)	11529(9.1)	12644(12.0)	21072(20.0)	23356(28.4)	3109(3.9)
Reserve Money (Jan 8)	247004	9245(3.9)	35650(16.9)	20770(9.2)	11368(5.7)	26248(13.1)	5527(2.8)	25176(14.9)
Net RBI Credit to Centre	150364	3084(2.1)	23048(18.1)	16748(12.5)	6614(5.5)	12915(10.7)	1934(1.6)	19855(20.1)
RBI Credit to Bks/Comm Sector	24118	6564(37.4)	7944(49.1)	8836(57.8)	2921(22.0)	2029(15.3)	-15557(-54.0)	8747(43.6)
Scheduled Commercial Banks (Jan 1)								
Deposits	683081	3377(0.5)	118932(21.1)	77671(12.8)	58550(11.6)	99811(19.7)	71780(16.5)	46960(12.1)
Advances	344024	6592(2.0)	43498(14.5)	19945(6.2)	22125(7.9)	45677(16.4)	24386(9.6)	42455(20.1)
Non-Food Advances	327923	6497(2.0)	39253(13.6)	16329(5.2)	17866(6.6)	40790(15.1)	26580(10.9)	44938(22.5)
Investments (for SLR purposes)	249683	161(-0.1)	34320(15.9)	30978(14.2)	24850(13.0)	28192(14.8)	25731(15.6)	15529(10.4)
Commercial Investments	45015	1323(3.0)	11106(32.8)	11930(36.1)	14498(74.7)	13673(70.4)	4412(29.4)	925(6.6)

@ Includes Rs 17,945 crore on account of proceeds from RIBs, excluding which the year-on-year growth of money supply would be 17.2 per cent.

Index Numbers of Industrial Production (1993-94=100)	Weights	October 1998	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Full Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
General Index	100.00	136.7	137.4(3.6)	132.6(6.2)	137.6(6.6)	129.0(5.5)	122.3(12.8)	108.4(8.4)
Mining and Quarrying	10.47	118.0	115.6(-0.7)	116.4(5.0)	122.4(5.9)	115.6(-2.0)	117.9(9.6)	107.6(7.6)
Manufacturing	79.36	140.1	140.6(3.8)	135.4(6.2)	140.5(6.7)	131.8(6.7)	123.5(13.8)	108.5(8.5)
Electricity	10.17	129.5	135.2(6.3)	127.2(6.9)	130.0(6.7)	121.9(3.9)	117.3(8.1)	108.5(8.5)

Capital Market	Jan 15, 1999	Month Ago	Year Ago	1998-99 So Far: Trough	1998-99 So Far: Peak	1997-98: Trough	1997-98: Peak	End of Fiscal Year: 1997-98	1996-97	1995-96
BSE Sensitive Index (1978-79=100)	3208(-4.7)	2927	3366(-7.7)	2783	4281	3210	4548	3893(15.8)	3361(-0.2)	3367(3.3)
BSE-100 (1983-84=100)	1421(-3.5)	1295	1472(-8.5)	1242	1890	1401	1980	1697(15.9)	1464(-5.5)	1549(-3.5)
BSE-200 (1989-90=100)	330(-0.3)	300	331(-7.5)	289	429	314	440	377(14.9)	328(-5.0)	345(-6.3)
S and P CNX-50 (Nov 3, 1995=1000)	934(-5.7)	845	990(-5.0)	812	1213	941	1140	1117(15.4)	968	na
Skindia GDR Index (Jan 2, 1995=1000)	603(-22.6)	542	779	515	1015	765	1320	940(1.1)	930(-4.4)	973(-0.6)

Foreign Trade		November 1998	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
Exports:	Rs crore	10812	89897(10.1)	81623(7.7)	126286(6.3)	118817(11.7)	106353(28.6)	82674(18.5)
	US $ mn	2551	21433(-5.2)	22598(5.2)	33980(2.6)	33470(5.3)	31797(20.8)	26330(18.4)
Imports:	Rs crore	14734	117948(23.8)	95254(10.4)	151554(9.1)	138920(13.2)	122678(36.3)	89971(23.1)
	US $ mn	3477	28121(6.6)	26371(7.9)	40779(5.8)	39132(6.7)	36678(28.0)	28654(22.9)
Non-POL:	US $ mn	2917	24094(14.8)	20988(13.8)	32562(11.9)	29096(-0.2)	29152(28.3)	22727(29.5)
Balance of Trade	Rs crore	-3922	-24222	-13631	-25268	-20102	-16325	-7297
	US $ mn	-925	-5784	-3774	-6799	-5663	-4881	-2324

Foreign Exchange Reserves (excluding gold)	Jan 15, 1999	Jan 16, 1998	Mar 31, 1998	Variation Over: Month Ago	Year Ago	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95	1993-94
Rs crore	116339	94727	102511	2768	21612	13828	14352	22136	21649	-7302	18402	27430
US $ mn	27443	23436	25976	738	4007	1467	1067	3607	5243	-3690	5640	8724

Notes: (i) Superscript numeral denotes month to which figure relates, e.g. superscript 11 stands for November, (ii) Figures in brackets are percentage variations over the specified or over the comparable period of the previous year. na: not available. neg: negligible. * unchanged

Mobilisation of Funds From the Primary Market

Table:1: New Capital Issues By Non-Government Public Limited Companies *(Amounts in rupees crore)*

Fiscal Year	Ordinary Shares		Preference Shares		Debentures		Total		Of Total Cap (Prospectus)		Of Total Cap (Rights)		Of Total Cap (Initial)		Of Total Cap (Further)	
	No of Issues	Amount	No of Issues	Amount	No of Issues	Amount	No of Issues	Amount	No of Issues	Amount	No. of Issues	Amount	No of Issues	Amount	No of Issues	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1981-82	357	305	5	3	73	290	435	598	345	490	90	108	256	233	179	366
1985-86	758	898	9	1	83	846	850	1745	721	893	129	853	536	627	314	1118
1986-87	424	1008	3	1	94	1573	521	2581	414	1373	107	1208	244	735	277	1846
1987-88	174	1105	5	7	46	676	225	1788	140	716	85	1072	83	318	142	1470
1988-89	256	1034	6	3	79	2188	341	3225	191	1571	150	1654	121	1233	220	1992
1989-90	269	1220	4	8	134	5282	407	6510	190	3154	217	3356	102	613	305	5897
1990-91	246	1284	3	13	115	3015	364	4312	152	2048	212	2264	86	737	278	3575
1991-92	366	1916	3	2	145	4275	514	6193	210	2114	304	4079	94	941	420	5252
1992-93	868	9953	1	1	171	9850	1040	19803	531	7077	509	12726	188	3311	852	16492
1993-94	983	9960	1	0	149	9370	1133	19330	753	11547	380	7784	244	5580	889	13750
1994-95	1548	17414	9	131	121	8871	1678	26417	1328	19677	350	6740	368	6465	1310	19952
1995-96	1598	11997	9	150	63	3970	1670	16118	1410	10367	260	5750	577	3117	1093	13001
1996-97	805	6116	5	75	32	4233	842	10424	730	7761	112	2663	367	2270	475	8154
1997-98	89	1162	1	4	12	1972	102	3138	54	1411	48	1727	27	675	75	2463

Table 2: Mobilisation of Total Resources from the Primary Market (Debt and Equity): Public and Private Sectors *(Amount in rupees crore)*

Fiscal Year	(A) Prospectus and Rights						(B) Private Placements		Total
	Non-Govt Pub Ltd Cos (Private Sector)		PSUs and Govt Cos (Equities and Bonds)		Banking/Financial Inst (Public Sector)		Private Sector	Public Sector	Amount (3+5+7+8+9)
	No of Issues	Amount	No of Issues	Amount	No of Issues	Amount	Amount	Amount	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1994-95	1683	26440	17	3959	2	425	na	na	30824
1995-96	1677	16172	2	1000	6	3465	4071	9290	33999
1996-97	842	10424	4	700	6	4352	2493	12573	30542
1997-98	102	3138	-	43	4	1476	8700	18370	31726

Table 4: Resources Mobilisation By Mutual Funds *(Rupees crore)*

Fiscal Year	Banks' MFs	GIC MF	LIC MF	IDBI MF	FIs' MFs (3+4+5)	UTI	Total (2+6+7)	Private MF	Grand Total (8+9)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1987-88	250	-	-	-	-	1768	2018	-	2018
1988-89	320	-	-	-	-	3464	3784	-	3784
1989-90	888	-	-	-	315	5491	6694	-	6694
1990-91	2352	-	-	-	604	3199	6154	-	6154
1991-92	2140	197	230	-	427	8685	11253	-	11253
1992-93	1204	371	389	-	760	11057	13021	-	13021
1993-94	148	227	11	-	239	9297	9684	1560	11243
1994-95	766	320	69	188	576	8611	9953	1322	11275
1995-96	113	65	117	53	235	-6314	-5966	133	-5833
1996-97	6	11	169	-	181	-3043	-2856	875	-1981
1997-98	252	2	100	175	277	2119	2648	658	3305

Table 3: Aggregate Deposits of Non-Banking Companies *(Rupees crore)*

Fiscal Year	Non-bank Financial Companies			Non-bank Non-Financial Companies			Grand Total		
	Regulated Deposits	Exempted Deposits	Total Deposits	Regulated Deposits	Exempted Deposits	Total Deposits	Regulated Deposits	Exempted Deposits	Total Deposits
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1981-82	214	1532	1746	1306	2441	3746	1520	3972	5492
1982-83	237	2193	2430	1740	5024	6764	1978	7217	9194
1983-84	276	2886	3161	2059	5904	7963	2335	8790	11124
1984-85	410	3947	4356	2406	9379	11784	2815	13325	16140
1985-86	486	4474	4960	2781	10332	13113	3267	14806	18072
1986-87	832	5109	5942	3245	12214	15459	4077	17323	21400
1987-88	1137	6363	7500	3598	13107	16705	4735	19469	24204
1988-89	1506	8979	10485	3901	14219	18120	5407	23198	28605
1989-90	1773	12870	14643	4224	17215	21439	5997	30085	36082
1990-91	2041	15196	17236	4706	22131	26837	6747	37327	44074
1991-92	2824	17614	20439	4672	26074	30746	7497	43688	51185
1992-93	4288	40669	44956	4890	98251	103141	9178	138920	148097
1993-94	17390	39048	56437	5813	123530	129343	23202	162578	185781
1994-95	25441	60055	85495	7261	151251	158511	32701	211305	244006
1995-96	38711	62962	101672	8040	178869	186909	46751	241831	288582
1996-97	53116	71254	124370	9592	214281	223873	62708	285535	348243

EXCEL INDUSTRIES

Lower Production

1997-98 was a difficult year for agro-chemical major Excel Industries. The slow down in the economy and the imbalance between demand and supply affected the company's performance drastically. Cheap supplies from China which flooded the market only added to the company's woes. While net sales rose marginally by 2.5 per cent over 1996-97, a steep rise in operating expenses saw the company's operating profit decline by 16.2 per cent over the same period. Disproportionate increases in interest (up 6.4 per cent) and depreciation (up 10.9 per cent) led to a further fall in the company's bottomline, which declined by 33 per cent.

With earnings per share falling from Rs 25.1 to Rs 16.8, the company decided to prune the dividend rate from 75 per cent last year to 60 per cent. Book value, meanwhile, moved up from Rs 122.2 per share to Rs 132.5 per share. The company's equity share trades at around Rs 146 on the bourses, discounting its 1997-98 earnings by 8.7 times.

The company is engaged in the production of pesticides, phosphorous and its compounds, chemicals, organic manure, etc. While pesticides is the largest contributor to its total turnover, bringing in approximately 75 per cent of total earnings, phosphorous and its compounds account for another 21 per cent. During the year under review, production of pesticides declined from 10,131 tonnes last year to 9,379 tonnes, a fall of 7 per cent over the previous year, while that of phosphorous and its compounds too was lower at 13,919 tonnes (1996-97: 14,809 tonnes). The company's performance on the sales front was also not encouraging. While sale of pesticides was marginally higher by 3 per cent, that of phosphorous and its compounds declined by 1 per cent.

The main raw materials required by the company are inorganic and organic chemicals, metal and metal powder, and minerals. During the year, the company managed to reduce, albeit marginally, the import content of raw material consumed from 62.1 per cent last year to 60.2 per cent.

Meanwhile, the company has commissioned a new pesticide fomulation unit at Silvassa in the union territory of Dadra and Nagar Haveli to manufacture glycel 41 per cent SL. It also plans to add facilities to manufacture other formulations in the future.

NOVARTIS INDIA

High Growth

Novartis India, the company formed by the merger of the life science businesses of Hindustan Ciba Geigy and Sandoz India, fared well in 1997-98. While the company's net sales rose by 10 per cent over the previous year, operating profit improved by 36.4 per cent. A fall of 44.3 per cent in interest charges helped the company more than double its bottomline over the same period. Encouraged by its performance, the company raised the dividend rate from 32 per cent last year to 40 per cent. Earnings per share improved from Rs 18.9 to Rs 38.9 and book value moved up from Rs 188.9 per share to Rs 213.6 per share. The company's stock is presently quoted at Rs 889 on the bourses, discounting its 1997-98 earnings by a comfortable 22.9 times

The company is the second largest in the pharmaceutical sector after Glaxo. Novartis AG, Switzerland, one of the world's biggest drug, crop chemicals and biotechnology companies, holds a 51 per cent stake in Novartis India. The parent company's product pipeline and substantial research resources are expected to sustain high growth for the Indian company over the long term.

Novartis India has a balanced portfolio of pharmaceuticals, agrochemicals, nutrition, seeds and eye care products.

The company has introduced five new products for cancer, hypertension, endoctrine therapy, menopausal symptoms and TB treatment. While the general slow down in the pharmaceuticals industry restricted the company's growth in this segment to 11 per cent as compared to 15 per cent last year, its seeds business saw a growth of 20 per cent while its animal health business grew by 25 per cent over the previous year. The company plans to focus on its non-pharma products, namely, crop protection, seeds, animal health and vision care business, in the coming years. It plans to launch a range of biotechnology based products in seeds and crop protection.

Meanwhile, for the first six months of 1998-99, the company continued its high growth. While net sales recorded an increase of 17 per cent over the corresponding period last year, net profit surged ahead by 104 per cent over the same period. Higher sales and synergies of merger coupled with lower interest rates helped the company improve its performance further. The company continues to maintain a leadership position in the therapeutics areas of transplantation, pain, tuberculosis, gynaecology and the nervous system.

NOCIL

Shell's Return

Nocil, an Arvind Mafatlal group flagship, had been in the news -- unfortunately for all the wrong reasons. First there was a fall-out between Nocil and its overseas partner Shell. Then its Rs 4,600 crore expansion project ran into rough weather following cost overruns. Then in 1997-98, the company's performance suffered sharply. While net sales declined by 6.3 per cent over the previous year, operating profit fell by 27.4 per cent. A steep increase in depreciation (up 13.2 per cent) saw the company's net profit tumble by 37.1 per cent during the same period. With earnings per share falling from Rs 4.9 to Rs 3.1, the company cut its dividend rate from 25 per cent in 1996-97 to 10 per cent during the year under review.

Despite being the first company to have set up a naphtha cracker and downstream units in the country, Nocil failed to keep up with the times. Saddled with outdated technology and plants, the company decided to increase its capacities to global levels, but was plagues by funding problems. The company suffered another setback when Shell decided to disassociate itself from Nocil in 1993. What had triggered Shell's decision was the unwillingness of the Mafatlal group to let the foreign partner increase its stake.

What was needed was a thorough restructuring of the company's business on the whole. So the company came up with a plan. It decided to focus on its core competency, petrochemicals. For this purpose it decided to separate its divisions, namely, the petrochemicals, rubber

(Rs lakh)

Financial Indicators	Excel Industries March 1998	Excel Industries March 1997	Novartis India March 1998	Novartis India March 1997	NOCIL March 1998	NOCIL March 1997
Income/appropriations						
1 Net sales	36431	35558	63583	57820	92208	98438
2 Value of production	35865	36864	62360	59795	93525	96332
3 Other Income	822	908	1987	2355	5844	5517
4 *Total income*	36687	37772	64347	62150	99369	101849
5 Raw materials/stores and spares consumed	14314	15084	15314	15735	43199	41532
6 Other manufacturing expenses	5890	6645	21266	21183	19996	21038
7 Remuneration to employees	4236	3554	5785	6276	9390	8963
8 Other expenses	6898	6104	13161	12490	14524	13440
9 *Operating profit*	5349	6385	8821	6466	12260	16876
10 Interest	2205	2073	956	1717	7316	7488
11 *Gross profit*	3198	4376	8291	4944	6011	9422
12 Depreciation	763	688	1456	1283	1787	1578
13 *Profit before tax*	2435	3688	6835	3661	4204	7824
14 Tax provision	600	950	3000	1800	440	1840
15 *Profit after tax*	1835	2738	3835	1861	3764	5984
16 Dividends	719	900	1401	1122	1349	3249
17 Retained profit	1116	1838	2434	739	2415	2735
Liabilities/assets						
18 Paid-up capital	1091	1091	3186	3186	12261	12261
19 Reserves and surplus	13361	12245	20070	17637	35424	33009
20 Long term loans	7102	5895	2720	5805	19597	17422
21 Short-term loans	7517	6334	NA	2229	31545	28177
22 Of which bank borrowings	6567	5234	NA	NA	26840	24172
23 Gross fixed assets	15768	14533	17638	17904	72601	67719
24 Accumulated depreciation	5507	4797	9536	9507	20515	19028
25 Inventories	7238	7894	12356	14295	15209	13928
26 Total assets/liabilities	34627	32180	45202	43245	127135	120936
Miscellaneous items						
27 Excise duty	11	16	2716	2901	17810	18995
28 Gross value added	9338	7655	14963	12340	23337	25600
29 Total foreign exchange income	5801	5914	7978	7508	5518	7480
30 Total foreign exchange outgo	6355	8079	11393	11254	5987	9346
Key financial and performance ratios						
31 Turnover ratio (sales to total assets) (%)	105.21	110.50	140.66	133.70	72.53	81.40
32 Sales to total net assets (%)	125.32	139.09	244.78	200.37	93.30	108.33
33 Gross value added to gross fixed assets (%)	59.22	66.44	84.83	68.92	32.14	37.80
34 Return on investment (gross profit to total assets) (%)	9.24	13.60	18.34	11.43	4.73	7.79
35 Gross profit to sales (gross margin) (%)	8.78	12.31	13.04	8.55	6.52	9.57
36 Operating profit to sales (%)	14.68	17.96	13.87	11.18	13.30	17.14
37 Profit before tax to sales (%)	6.68	10.37	10.75	6.33	4.56	7.95
38 Tax provision to profit before tax (%)	24.64	25.76	43.89	49.17	10.47	23.52
39 Profit after tax to net worth (return on equity) (%)	12.70	20.53	16.49	8.94	7.89	13.22
40 Dividend (%)	60.00	75.00	40.00	32.00	10.00	25.00
41 Earning per share (Rs)	16.82	25.10	38.89	18.87	3.07	4.88
42 Book value per share (Rs)	132.47	122.24	213.55	188.87	38.89	36.92
43 P/E ratio	8.68	NA	22.86	NA	7.17	NA
44 Debt-equity ratio (adjusted for revaluation) (%)	49.14	44.20	11.70	27.88	41.10	38.48
45 Short-term bank borrowings to inventories (%)	90.73	66.30	0.00	0.00	176.47	173.55
46 Sundry creditors to sundry debtors (%)	43.55	71.71	87.59	73.17	80.20	99.79
47 Total remuneration to employees to value added (%)	45.36	36.81	38.66	50.86	40.24	35.01
48 Total remuneration to employees to value of production (%)	11.81	9.64	9.28	10.50	10.04	9.30
49 Gross fixed assets formation (%)	8.50	NA	-1.49	-8.89	7.21	10.00
50 Growth in inventories (%)	-8.31	NA	-13.56	35.47	9.20	-16.36

NA means not available

and plastics divisions, into separate companies. Shareholders of the company will receive 70 shares of Nocil Petrochemicals, 16 shares of Nocil Rubber Chemicals and 14 shares of Nocil Plastics for every 100 shares held in Nocil. The said number of shares is linked to the amount of business contributed to the total turnover of Nocil.

Six years after it had pulled out of Nocil, Shell decided it was time to build bridges again. Along with its fully owned subsidiary, Montell, the Dutch company has reportedly decided to directly invest Rs 1,000 crore in the equity of Nocil Petrochemicals over the next five years. The funds will enable the Indian company to implement its massive expansion programme. Shell will also arrange for the debt portion of about Rs 2,000 crore for funding the latter's huge project. According to reports, the project will entail an investment of up to Rs 7,000 crore at Nocil's plant in Thane in Maharashtra. Shell's high rating in the international debt market will enable borrowings at lower interest rates, it is felt. The expansion project, which envisages increasing capacity from 75,000 tonnes of ethylene to 4.5 lakh tonnes, has been christened 'Lotus' and is scheduled to be completed by 2003. The Shell-Montell combine is acquiring a 49 per cent stake in Nocil Petrochemicals through a preferential allotment after the demerger of Nocil's petrochemicals business. Though Shell is apparently shelling out a little less than three times the amount it realised for its holding six years ago when it walked out of Nocil, this time it is coming in on its own terms. It will have management control, which was the bone of contention earlier.

As for Nocil's rubber chemicals division, it is expected to be acquired by Apollo Tyres. This division has performed better than others in the industry, despite the depressed market conditions which resulted in lower rubber chemicals prices. In fact, the division achieved a breakthrough in exports of UHMW-PE in the European market and exports are slated to do well for the next three years.

Nocil's share price currently rules around Rs 22 on the bourses, discounting its 1996-97 earnings by 7.2 times.

Meanwhile, for the first five months of the current year, 1998-99, Nocil has recorded sales of Rs 442 crore, representing an increase of 9 per cent over the corresponding period last year

Correcting Interest Rate Distortions

While the monetary authorities have sought to correct the distortions in the yield rates on government debt, they have not addressed the question of high interest rates on commercial sector bonds for which the FIs and PSUs have been mainly responsible. The situation calls for policy initiatives by the RBI.

I
High Interest Rate Regime

ONE of the elements hindering the revival of the industrial economy and the capital market has been the prevalence of a high real interest rate regime. In this respect, the cause for distortion has arisen essentially from the government sector: the earlier unusually high coupon rates offered on government securities and the persistence of high yield rates on bonds floated by public financial institutions (FIs) and public sector undertakings (PSUs) ignoring the time-tested principles of interest rate determination based on the implied economic rates of return and the risk and term premia. When public FIs like the IDBI, ICICI and IFCI mobilise funds through fixed-income yielding bonds at high rates of interest, they tend to distort the market in a variety of ways: they drive away private sector floatations of bends, or they keep the rates high for such floatations; they place the equity market at a disadvantage, and make the projects financed by such funds less economic.

Hitherto the fears of debt trap have been voiced only in respect of government finances. Now the latest company finances data show the writing on the wall, with the corporates' debt servicing reaching close to their gross borrowings in 1998-99. RBI data on the performance of the private corporate sector show that interest as percentage of gross profits (after depreciation) has jumped from 27 per cent in 1995-96 to 39 per cent in 1996-97 and further to 42.6 per cent in 1997-98. Their debt servicing levels are estimated to have outstripped gross profits as against less than 50 per cent of gross profits in the early 1990s; in 1998-99, they may touch roughly 120 per cent of such profits.

Interestingly, while the authorities have sought to correct the distortions in yield rates on government debt, they have not addressed the question of high interest rates on commercial sector bonds in which also the culprits are the FIs and PSUs, which enjoy the benefits of low risk premium, and hence ought to restrain themselves in offering high yield rates on their floatations. The earlier policies of offering high coupon rates (14 per cent for 5-year loans) and narrowing of maturities (largely around 5-7 years), which have resulted in a serious debt management problem for the government, have now been corrected. The latest private placement for a 20-year loan with the RBI has been offered at a rate of 12.6 per cent. The centre's loan floatations during the past one year have carried coupon rates ranging from 11.10 per cent (5 years) to 12.60 per cent (20 years). And now the government has reduced the interest rates on postal or small savings by 0.50 to 1 percentage point from January 1, 1999. The revised rates ranging from 5.50 per cent on postal saving accounts and 11.5 per cent on national saving certificates (with substantial tax concessions) may still appear attractive and continue to fetch the large collections as have been taking place in recent years. In the context of the failures of non-banking financial companies (NBFCs), the accruals under small savings have far outstripped the budgetary expectations. Even this year, by November, the collections reportedly have already touched Rs 33,000 crore as against the budget provision of Rs 21,640 crore. Of these collections, 90 per cent are transferred to the state governments at a rate of interest of 14 per cent. Even so, they constitute a part of the centre's gross fiscal deficit. Proponents of fiscal compression and reduction in fiscal deficits ought to note that accruals of small savings and public and state provident funds serve also as a kind of social security in a society with limited social security schemes and that they constitute nearly 50 per cent of the centre's gross fiscal deficit with only the other 50 per cent being financed by market borrowings.

The situation, therefore, calls for an RBI policy initiative to correct the distortions that have surfaced in the working of the financial system. Briefly, the steps desired are:

(i) a reasonable cap, say 12.5 to 13 per cent, on the yields on bonds offered by FIs and PSUs;

(ii) imposition of certain limits on funds that FIs and banks mobilise from the market with substitute support from the primary RBI for FIs and postponement of credit adequacy norms for banks;

(iii) modification of the policy of disinvestment of PSU shares by encouraging the PSUs to float equities directly, mobilise funds through such equities and complementary borrowings, and augment physical investment, which may incidentally give a boost to the capital market; and

(iv) a vigorous focus on the expansion of bank credit as also its distribution amongst different sectors, particularly agriculture, small businesses and small-scale and medium-scale industries.

Size of Debt Stock in the Economy

As a sequel to the data published earlier (*EPW*, December 14, 1996), an attempt is made to present the latest estimates of the size of debt stock – sovereign and commercial – in the economy (Table 1). Aggregate debt stock so estimated has risen from a little over Rs 3,15,000 crore at the end of March 1994 (or near 40 per cent of GDP) to Rs 4,73,000 crore (or 33 per cent of GDP). Sovereign and commercial debt outstandings have grown at a similar pace, which is suggested by the fact that sovereign debt has generally remained at about 70 per cent of total debt. Thus, despite considerable substitution of capital market as well as bank funds by debt sources for corporates, the share of marketable corporate debt in the total debt stock has remained unchanged at about 30 per cent. Also, interestingly both sovereign and commercial debt as proportions of GDP or gross value of industrial output have declined, suggesting amongst other things a moderate growth in funds mobilised by real sectors which in turn imply a moderate growth in financial assets. Roughly the annual average of gross financial savings of the household sector as percentage of GDP for the latest period 1995-96 to 1997-98 at 14 per cent remains the same as it was during 1990-91 to 1992-93. In the final analysis, the high rates of interest, while they do contribute to a sudden growth of the debt market, may themselves hinder the wider use of the debt instruments by many medium-scale or even large-scale industries in not-so-high profit enclaves.

II
Call Money and Forex Markets

For most of December the call rates remained fairly firm – and stable – just above the 8 per cent repo rate (Graph A).

A major influencing factor here was the outgo of about Rs 5,000 crore on account of advance tax payments by corporates that were due on December 15. Ahead of this date banks conserved their resources on fear of liquidity tightening and some large banks withdrew lending in the call market. Also, almost all weeks of the month saw a net outflow of funds from the banking system (Table 2) and thus placed pressure on call rates. The announcement of state government loans for Rs 1,612.15 crore on December 28 added further pressure even at the end of the month when the banks were experiencing a return flow of funds. The ample liquidity witnessed in the earlier months was absent as indicated by the generally low levels of outstandings in RBI repos. The inflows on government security coupons and redemptions were also much less during December. The high

TABLE 1. SIZE OF THE INDIAN DOMESTIC DEBT MARKET

Debt Instrument	Outstanding at the end of March (Rupees, Crore)					For the latest Period [December 1998]			
	1998	1997	1996	1995	1994	Interest / Yield/ Discount Rate as Per Primary Issues(Per Cent Per Annum)	General Maturity Period (Issues of Past 12 Months)	Monthy Turnover in the Secondary Market (Rupees, Crore)	Prevalent YTMs in the Secondary Market (Average for December 1998) (Per Cent Per Annum)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Broad Magnitude of Domestic Debt Stock (A+B)	4,72,909	4,57,734	4,05,527	3,47,293	3,15,211	–	-	–	–
	(33 1)	(35 8)	(36.2)	(36 0)	(38 9)				
A Sovereign debt (1 to 5)	3,31,956	3,34,675	2,89,972	2,44,377	2,19,220	–	–	-	-
	(23 2)	(26 2)	(25 9)	(25 4)	(27 0)				
1 91-day treasury bills									
(a) Ad hoc	–	34,130	29,445	23,480	21,730	–	–		–
(b) On tap	–	16,687	7,846	8,050	5,017	–	-	-	-
(c) Auctions	1,600	5,700	6,499	801	4,968	9 54	91 days	2500	8 73
2 14-day treasury bills									
(a) Intermediary bills[a]	2,856	16692	–	–	-	-	-	-	
(b) Auctions[b]	240	–	-	–	–	9 13	14 days	410	8 66
3 364-day treasury bills	16,247	8,241	1,875	8,165	8,386	10.47	364 days	540	10 28
4 Dated government securities (a+b)	2,66,803	2,26,347	2,00,007	1,61,041	1,36,669	–	–		–
(a) Central	2,17,501	1,83 976	1,63,986	1,30,908	1,10,611	11 47-12 60	3 to 20 years	8350	11 27
(b) State	49,302	42 371	36,021	30,133	26,058	12 50	10 years	85	12 38
5 All approved securities and municipal bonds	44,210	43,570	44,300	42,840	42,450	10 5	10 years		-
(Of which held by banks and LIC)	37,576	37 031	37,618	36,416	36,085				
B Commercial debt (1 to 3)	1,40,953	1,23,059	1,15,555	1,02,916	95,991				
	[20 7]	[19 9]	[19 6]	[21 4]	[24 5]				
1 Certificates of Deposit (CDs) (a+b)	21,438	16 913	21,869	10,981	7,691	7 75 13 00 (October)	90 days	55	9 60-9.70
Issued by									
(a) Sch Commercial Banks	14,296	12,134	16,316	8,017	5,571	-			
(b) Financial Institutions	7,142	4 779	5,553	2,964	2,120	-			
2 Commercial Paper (CP)	1,500	646	76	604	3,264	9 45-13 50	90 days	477	9 73-11 00
3 Corporate debentures and bonds and PSU bonds (a+b)	118,015	105,500	93,610	91,331	85,036				
(a) Corporate debentures bonds including floating rate notes	31,470	30,230	29,370	31,740	28,586	15 00	5 to 7 years	77	9 20-10 29 Tax-free
(b) PSU Bonds including Bonds of FIs (centre and states)	86,545	75,270	64,240	59,590	56,450	13 50-14 00	5 years	255	12 14-13 57 Taxable
[Of which bonds and debent outstanding in respect of IDBI, ICICI, IFCI and EXIM Bank]	63,782	48,797	35,387	29,187	23,213				

Memorandum Items	1997-98	1996-97	1995-96	1994-95			
1 Turnover in central and state government securities	1,33,182	72,007	1,14,116	–			
(a) Outright transactions (SGL Data)	1,10,484	43,296	16,788	-			
(b) Repo transactions (Outside RBI)	22,698	28,711	97,328				
2 NSE's wholesale debt market (excluding central and state govt securities)							
(a) Market capitalisation at the end of the year	75,818	86 990	45,532	29,246			
(b) Market turnover during the year	26,641	3,878	1,880	1,121[c]	-	965	-

– means not available/not relevant (a) Introduced on June 6, 1997. (b) Introduced on April 1, 1997 (c) During June 30, 1994 to March 31, 95

Notes (i) Figures within round brackets are as percentage of GDP at market prices

(ii) Figures within square brackets are as percentage of gross output of organised manufacturing industry

Sources: (i) Data on sovereign debt are from RBI sources and government of India budgets

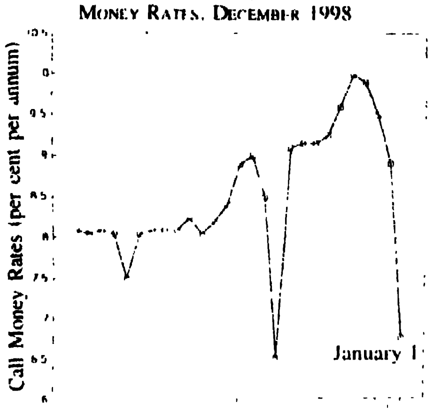
(ii) Approved securities and municipal bonds data other than those held by banks and LIC are estimated

(iii) CD/CP data are from RBI sources

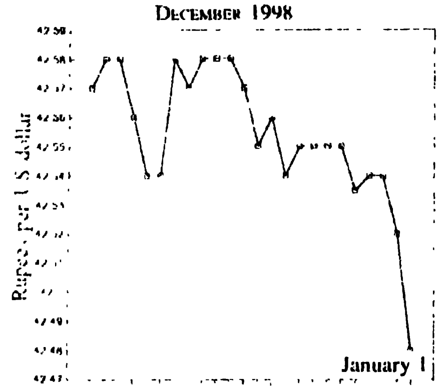
(iv) Corporate and PSU bonds data are estimated from annual floatations with some assumed redemptions. FI bonds and debentures data are from their balance sheets Some SLR-related PSU bonds may overlap with approved securities

(v) Secondary market data for all government papers are from the RBI's SGL transactions and for commercial debt from the NSE turnover data

GRAPH A: DAILY TOP-END QUOTATIONS OF CALL MONEY RATES, DECEMBER 1998



GRAPH B: SPOT QUOTATIONS FOR THE US DOLLAR IN THE DOMESTIC INTER-BANK MARKET – DECEMBER 1998



call also prompted primary dealers to seek refinance from the RBI at a fixed 9 per cent - a phenomenon seen after a long time. And they started repaying these borrowings towards the month-end when call rates fell below 8 per cent ahead of the reporting Friday and the year-end; it ruled in a range of 6.50 to 6.75 per cent on January 1, 1999 (Tables 3 and 4).

The foreign exchange remained stable throughout the month, with the rupee rate trading generally between Rs 42.56/58 to a dollar except on the new year day when it touched Rs 42.46. Overall, the month of December saw a slight appreciation of the rupee (Graph B). Six-month forward rate ruled close to 7.5 per cent. The market has thus remained calm despite reports of widening trade deficit and reduced capital flows. The FII numbers in particular have been more discouraging. On a net basis, FIIs have withdrawn $ 629 million in the first nine months as against an inflow of $ 1.4 billion during the whole of 1997-98.

III
Primary markets

Dated Securities

The third and the last tranche of state government securities was sold on December 28 for an overall amount of Rs 1,612.15 crore; the 10-year bonds were offered a coupon rate of 12.50 per cent. The original amount was Rs 1,719.50 crore but was reduced following the Bihar government's reluctance to accept the allocation of Rs 321.44 crore, it had asked this amount to be reduced to Rs 214 crore.

The stage is set for a further step in economic reforms as the state of Punjab is preparing to launch the first ever auction of state government paper, as against the fixed rate sale until now. It is likely to

TABLE 4: DAILY QUOTATIONS OF HIGHS AND LOWS OF CALL RATES IN PER CENT PER ANNUM SIMPLE STATISTICAL CHARACTERISTICS

	All Five Weeks of the Month	Jan 1, 1999	December 1998 Week Ended 24	18*	11	4*	All Four Weeks of the Month	November 1998 Week Ended 27	20*	13	6*	2
Simple Mean	8.3	8.7	9.1	8.0	8.0	7.8	8.2	8.0	8.1	8.7	8.1	8.1
Standard Deviation	0.9	1.2	0.3	1.0	0.1	0.5	0.4	0.2	0.2	0.5	0.1	0.3
Co-efficient of Variation (percentages)	10.4	13.2	3.1	12.1	1.4	6.8	4.6	2.9	2.0	5.8	1.2	3.4

* Data for reporting Fridays (RF) are omitted

TABLE 2: ESTIMATED FLOW OF LIQUIDITY INTO THE FINANCIAL SYSTEM DURING DECEMBER 1998

(Rupees crore)

Week Ended	Jan 1, 1999 Inflow	Outflow	Net	27 Inflow	Outflow	Net	20 Inflow	Outflow	Net	13 Inflow	Outflow	Net	6 Inflow	Outflow	Net
Auctions and Redemptions															
14-day T bills	300	58	242	300	261	39	200	300	-100	100	300	200	100	200	-100
91-day T bills	160	114	46	105	364	-259	245	400	-155	40	425	-385	240	425	185
364-day T bills	45	500	455		–	-	100	500	-400		–	-	205	500	295
Government securities	-	2817	2817		-	-	-				1500	1500	1062	*	1062
Coupon Payments	150		150	495	–	495	488	-	488	901		901	452	–	452
CRR Interest Payments							214	-	214	2000	-	2000		-	-
Net Foreign Assets (Variation)	298	-	298	790		790	–	482	–482	791	-	791	254	.	254
Advance Tax Outflows				–	5000	-	-	-	–	-	-	--		.	-
Total	953	3489	-2536	1690	5625	-3935	1247	1682	-435	3832	2225	1607	2312	1125	1187
Memo Items															
Open Market Operations (RBI)				-	4	-4		106	–106		292	–292		197	-197
Repos by RBI	421	634	-213	3815	181	3634	664	3866	–3202	5563	1186	4377	9216	10949	–1733

Note: A negative sign implies net outflow. -- means nil * There was a private placement of a government paper with the RBI for Rs 2,000 crore.

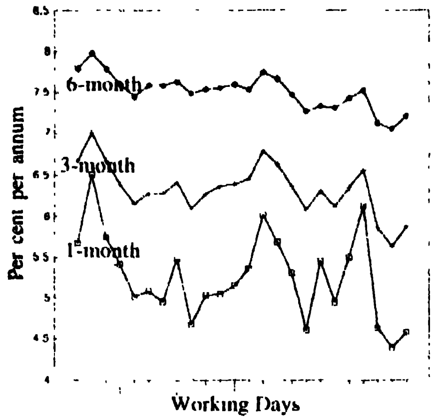
TABLE 3: CALL MONEY RATES

(Per cent per annum)

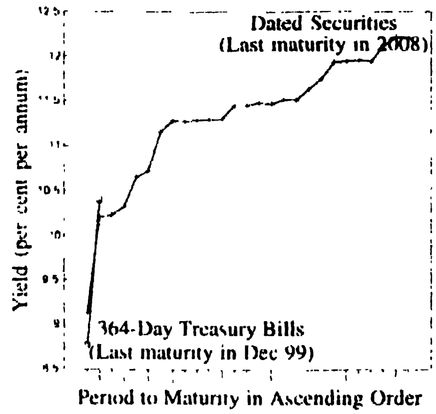
Items	Jan 1, 1999 (RF)	December 1998 24	18(RF)	11	4(RF)	November 1998 27	20(RF)	13	6(RF)
Weekly range	5.50-10.00	8.60-9.50	5.60-9.00	7.90-8.20	5.75-8.10	7.10-9.00	5.50-9.15	7.85-8.35	5.00-8.80
	(5.00-8.75)	(7.75-14.00)	(0.75-30.00)	(6.50-9.00)	(0.10-9.00)	(0.75-7.00)	(0.25-4.75)	(6.50-8.00)	(3.00-9.25)
Weekend (Friday)	6.50-6.75	9.25-9.60	5.50-6.50	8.00-8.05	6.25-7.50	8.00-8.15	6.00-7.25	8.00-8.20	6.25-7.25
	(5.00-7.00)	(7.75-9.00)	(1.00-12.00)	(8.25-9.00)	(1.50-7.00)	(1.00-8.00)	(0.25-1.25)	(7.00-8.00)	(3.00-7.50)
DFHI lending rates(range)	6.25-10.25	8.90-9.50	6.00-9.15	8.00-8.40	5.10-8.25	7.50-9.00	6.60-9.25	na	6.70-8.90
	(4.00-9.00)	(8.00-14.00)	(1.10-30.00)	(7.50-9.25)	(1.00-8.75)	(1.25-7.00)	(0.30-7.30)	(6.75-8.40)	(4.10-9.25)

Figures in parentheses represent weekly range during similar period last year

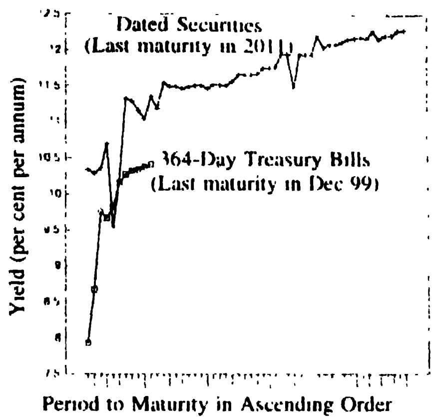
Graph C: Annualised Daily 1-Month, 3-Month and 6-Month Forward Premia in Percentage for the US Dollar by the Domestic Inter-Bank Market for December 1998



Graph D: Yield Curves for 364-Day Treasury Bills and Dated Securities: Day of Maximum Transactions (December 8) for December 1998



Graph E: Yield Curves for 364-Day Treasury Bills and Dated Securities – Weighted Average for December 1998



come out with a market offer of Rs 60 crore worth of 10-year bonds in mid-January. Market expects that it will be able to mobilise this amount at around 12.25 per cent, compared with 12.50 per cent coupon on the state government loans floated earlier in the month. If successful, this experiment may pave way for other states with well-managed finances to follow suit, reducing the rate of interest on their paper and relieving a part of the burden on their budgetary resources. Other states in line are said to be Andhra Pradesh and Maharashtra which may auction their bonds early next fiscal.

On December 2, the central government privately placed Rs 2,000 crore worth of securities with the RBI. It was a re-issue of 10-year, 12.25 per cent 2008 security. Simultaneously, the RBI auctioned Rs 1,500 crore of 3-year security at 11.47 per cent yield, which was generally lower than the market expectations. With these floatations, the gross borrowing of the central government stood at Rs 80,453 crore (budget: Rs 79,376 crore) and net borrowing of Rs 54,617 crore (budget: Rs 48,326 crore). Even with the balance redemption of Rs 5,215 crore, the net borrowing targets would be exceeded by Rs 1,076 crore. The government has been keeping its resort to ways and means advances from the RBI at a low level (Rs 644 crore being the latest amount).

There have been some slight firming up of the short-term yield rates offered on 14-day (8.35 per cent to 9.13 per cent) and 91-day (9.37 per cent to 9.54 per cent) TBs but a fall in the rates on 364-day TBs (10.51 per cent to 10.47 per cent). Amounts mobilised through these TBs have remained at fairly high levels – Rs 800 crore, Rs 1,400 crore and Rs 1,500 crore, respectively (Tables 5 to 7).

The Bonds Market

The bonds market was quite active during December 1998 with FIs and PSUs keen to mobilise funds. Among the FIs, the more active were the ICICI and the IDBI. The ICICI targeted Rs 600 crore and IDBI Rs 1,500 crore both preferring greenshoe options of amounts equal to the amounts of issue (Rs 300 crore and Rs 750 crore,

Table 5: Auctions of 14-Day Treasury Bills

(Amount in rupees crore)

Date of Auction	Notified Amount	Bids Tendered		Bids Accepted		Subscription Devolved on RBI (Amount)	Cut-off Price (Rupees)	Cut-off Yeild Rate (Per Cent)	Amount Outstanding on the Date of Issue
		No	Face Value (Amount)	No	Face Value (Amount)				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1997									
Dec 5	-	2	55.00	2	5.00	20.00	98.23	46.85	6203.00
		(1)	(200.00)	(1)	(200.00)		[99.81]	[4.95]	
Dec 12	-	8	825.00		-	65.00	99.81	4.95	1503.00
		(2)	(300.00)	(2)	(300.00)		[99.81]	[4.95]	
Dec 19	-	1	5.00	1	5.00	25.00	99.81	4.95	1780.00
			–		–		[99.81]	[4.95]	
Dec 26	–	2	10.00	2	10.00	25.00	99.81	4.95	3885.00
		(1)	(200.00)	(1)	(200.00)		[99.81]	[4.95]	
Jan 2, 1998	–	2	35.00	2	35.00	100.00			
1998									
Dec 4	100.00	9	265.00	5	100.00	0.00	99.68	8.35	500.00
		(1)	(200.00)	(1)	(200.00)	(0.00)	[99.68]	[8.35]	
Dec 11	100.00	11	172.00	6	100.00	0.00	99.68	8.35	600.00
		(1)	(200.00)	(1)	(200.00)	(0.00)	[99.68]	[8.35]	
Dec 18	100.00	10	71.45	9	61.45	38.55	99.67	8.61	600.00
		(1)	(200.00)	(1)	(200.00)	(0.00)	[99.67]	[8.61]	
Dec 25	100.00	5	58.00	5	58.00	42.00	99.65	9.13	400.00
		(0)	(0.00)	(0)	(0.00)	(0.00)	[99.65]	[9.13]	
Jan 1, 1999	100.00	4	143.00	4	100.00	0.00	99.65	9.13	200.00
		(0)	(0.00)	(0)	(0.00)	(0.00)	[99.65]	[9.13]	

Figures in parentheses in cols 3 to 6 represent numbers and amounts of non-competitive bids which are not included in the total.
Figures in the square brackets under cols 8 and 9 represent weighted average price and respective yield
* Bracketed figures in col 7, if any, relate to devolvement on primary dealers, exclusive of RBI. – No bid

respectively). Effective rates of interest offered by the IDBI have touched 14 per cent and those by the ICICI 13.7 per cent. During the current fiscal year, ICICI has so far mobilised Rs 1,770.63 crore including an oversubscription of Rs 470.63 crore against a target of Rs 2,600 crore during the year. IDBI, on the other hand, has collected Rs 1,342.71 crore and hopes to collect Rs 1,500 crore in the latest issue. The IFCI has made an appearance through the private placement route with 5-year and 7-year bonds offering 14 per cent and 14.25 per cent, respectively. Exim Bank entered the market in the last week with a target of Rs 400 crore including a greenshoe option of Rs 200 crore. The coupon offered was 13.50 per cent for a 10-year tenure. IDFC also announced its intention of entering the bond market to raise about Rs 700 crore this fiscal year through private placement. IL&FS privately placed Rs 50 crore of bonds at a coupon of 14.50 per cent for 12 years.

Among the notable private sector bond issuers were Alpic Finance which issued infrastructure bonds at 15 per cent, GE Caps which offered a 2-year bond at 13 per cent and Nirma which privately placed a 13.5 per cent 3-year MIBOR-linked NCD. This is for the first time that the MIBOR-linked debentures are issued for such a longer maturity. Generally such issues are for a maximum period of 18 months. Earlier such issues from GE Capital Services and Reliance Industries were of one-year maturity. Another innovative structuring of coupon rate was reflected from the 13 per cent 364-day NCD from TELCO to raise Rs 75 crore (including Rs 25 crore greenshoe option). The rate was at a narrow spread of 180 basis points over government securities for the same tenor. The issue was closed successfully within two days after it received commitment for Rs 127 crore. The success is attributable to the fact that with FIs currently offering 12.75 per cent for 13 months with a 20 per cent risk weight, TELCO's issue at 13 per cent for 364 days with 100 per cent risk weight was among the most tightly-priced issue in recent times. The 16 per cent 7-year NCD from Haldia Petrochemicals was also in the market continuing from the previous month. Among the NBFCs, Infrastructure Lease and Finance Services (IL&FS) hit the private placement market with two options of 12-year bonds to raise Rs 50 crore. On the first option, it offers 14.5 per cent. On the other, which is floating rate bond and is specifically targeted at PF, the coupon rate would be 2.5 per cent above the PF rate decided by the government. Currently, PFs offer 12 per cent interest, so the rate for this paper would be 14.5 per cent. However, a floor rate of 13 per cent and a cap of 16 per cent has been set for this option.

The lack of demand for funds by corporates has led to a curious development where the differential on debt yields as between those of corporates and FIs has narrowed to about 25 basis points as compared with 75/100 basis points a year ago. The scarcity of good corporate paper has created a latent demand for such papers in banks, which are willing to mop up high-rated corporate paper at 14.25-14.50 per cent for five-year maturity. This

TABLE 7: AUCTIONS OF 364-DAY TREASURY BILLS

(Amount in rupees crore)

Date of Auction	Notified Amount	Bids Tendered		Bids Accepted		Subscription Devolved on RBI (Amount)	Cut-off Price (Rupees)	Cut-off Yield Rate (Per Cent)	Amount Outstanding on the Date of Issue
		No	Face Value (Amount)	No	Face Value (Amount)				
1997									
Dec 3	-	21	963.08	10	822.93	-	92.61 [92.61]	7.98 [7.98]	17138.00
Dec 17	-	21	1385.00	14	1305.00	-	92.61 [92.62]	7.98 [7.97]	18388.00
1998									
Dec 2	500.00	55	2373.22	8	500.00	0.00 (0.00)	90.49 [90.50]	10.51 [10.50]	4914.87
Dec 16	500.00	40	1527.80	5	500.00	0.00 (0.00)	90.50 [90.52]	10.50 [10.47]	5314.87
Dec 30	500.00	25	1110.00	14	500.00	0.00 (0.00)	90.52 [90.55]	10.47 [10.44]	5769.87

- not available. Figures in the square brackets represent weighted average price and the respective yield. Figures in brackets represent devolvement on Primary Dealers (PDs).

TABLE 6: AUCTIONS OF 91-DAY TREASURY BILLS

(Amount in rupees crore)

Date of Auction	Notified Amount	Bids Tendered		Bids Accepted		Subscription Devolved on RBI (Amount)	Cut-off Price (Rupees)	Cut-off Yeild Rate (Per Cent)	Amount Outstanding on the Date of Issue		
		No	Face Value (Amount)	No	Face Value (Amount)				Total	With RBI	Outside RBI
(1)	(2)	(3)	(4)	(5)	(6)	(7) *	(8)	(9)	(10)	(11)	(12)
1997											
Dec 5	300.00	6 (2)	41.25 (250.00)	4 (2)	6.25 (250.00)	(43.75)	98.23 [98.27]	7.21 [7.04]	3900.00	50.00	3850.00
Dec 12	300.00	5 (2)	43.00 (25.00)	- (2)	- (25.00)	150.00 (125.00)	98.23 [98.23]	7.21 [7.21]	3900.00	200.00	3700.00
Dec 19	300.00	3 (2)	31.00 (125.00)	1 (2)	1.00 (125.00)	94.00 (80.00)	98.23 [98.23]	7.21 [7.21]	3900.00	294.00	3606.00
Dec 26	150.00	2 (2)	30.00 (175.00)	- (2)	- (150.00)	-	98.23 [98.23]	7.21 [7.21]	3750.00	244.00	3506.00
Jan 2, 1998	150.00	3 (2)	22.00 (228.57)	- (2)	- (200.00)	-	98.23 [98.23]	7.21 [7.21]	3650.00	244.00	3406.00
1998											
Dec 4	400.00	20 (1)	1170.00 (25.00)	6 (1)	400.00 (25.00)	0.00 (0.00)	97.71 [97.71]	9.37 [9.37]	5800.35	743.45	5056.90
Dec 11	400.00	17 (0)	415.00 (0.00)	16 (0)	400.00 (0.00)	0.00 (0.00)	97.69 [97.69]	9.46 [9.46]	5670.35	458.45	5211.90
Dec 18	400.00	12 (1)	323.50 (40.00)	12 (1)	323.50 (40.00)	76.50 (0.00)	97.69 [97.69]	9.46 [9.46]	5880.35	409.95	5470.40
Dec 25	100.00	6 (1)	68.00 (50.00)	4 (1)	48.00 (50.00)	36.00 (16.00)	97.68 [97.66]	9.50 [9.58]	5770.35	345.95	5424.40
Jan 1, 1999	100.00	9 (0)	190 (0.00)	5 (0)	100 (0.00)	0.00 (0.00)	97.67 [97.67]	9.54 [9.54]	5670.35	345.95	5324.40

Figures in parentheses in cols 3 to 6 represent numbers and amounts of non-competitive bids which are not included in the total.
Figures in the square brackets under cols 8 and 9 represent weighted average price and respective yield
* Bracketed figures in col 7, if any, relate to devolvement on primary dealers, exclusive of RBI.

Appendix Table Secondary Market Operations in Government Paper RBI's SGL Data

(Amount in rupees crore)

Descriptions	Week ending December 1998 Yield to Maturity on Actual Trading 25 AMT	YTM	CY	18 AMT	YTM	CY	11 AMT	YTM	CY	4 AMT	YTM	CY	Total for the Month of December 1998 AMT	YTM	CY
1 Treasury Bills															
A 14-Day Bills	48 50	8 38		89 26	8 37		50 07	8 17		220 99	8 96		408 82	8 66	
B 91 Day Bills	293 56	8 79		688 40	8 75		707 50	8 39		811 08	8 97		2500 54	8 73	
C 364 Day Bills	35 00	10 34		20 00	9 48		323 76	10 38		160 00	10 15		538 76	10 28	
2 GOI Dated Securities															
A Converted (Per Cent Year)															
12 00 1999	209 93	10 37	11 95	205 60	10 34	11 95	281 95	10 21	12 32	179 00	10 25	11 93	876 48	10 29	12 06
13 25 2000	10 00	11 13	12 92	100 00	11 19	12 93	7 69	11 19	12 92	70 00	11 18	12 92	187 69	11 18	12 92
11 75 2001	78 50	11 53	11 70	430 00	11 52	11 69	165 00	11 49	11 69	61 82	11 51	11 69	735 32	11 51	11 69
12 50 2004	19 37	11 94	12 25	110 00	11 94	12 24	70 32	11 94	12 24	41 10	11 96	12 25	240 79	11 95	12 25
Sub-total	317 80	10 77	11 94	845 60	11 25	11 97	524 96	10 86	12 12	351 92	10 86	12 12	2040 28	11 01	12 03
B Regular (Per Cent Year)															
13 00 1999	5 01	10 34	12 76				5 15	10 35	12 75				10 16	10 34	12 75
13 12 1999							19 75	10 32	12 88	20 00	10 41	12 88	39 75	10 36	12 88
13 40 1999							10 00	10 65	13 06	79 00	10 71	13 06	89 00	10 70	13 06
13 65 1999				0 74	8 89	13 57				10 00	9 61	13 56	10 74	9 56	13 56
13 70 1999				20 00	10 15	13 48	45 00	10 22	13 48				65 00	10 19	13 48
11 40 2000	235 00	11 33	11 39	255 40	11 33	11 39	411 05	11 31	11 39	375 35	11 34	11 39	1276 80	11 33	11 39
11 64 2000	20 00	11 29	11 58	30 00	11 29	11 58	40 00	11 28	11 58	25 06	11 30	11 59	115 06	11 29	11 58
12 14 2000							20 00	11 15	11 98	5 00	11 20	11 99	25 00	11 16	11 98
12 60 2000	10 00	10 90	12 39	125 00	11 05	12 40							135 00	11 04	12 40
13 85 2000				5 04	11 45	13 29	10 00	11 31	13 25				15 04	11 35	13 26
6 50 2001							10 00	11 55	7 30				10 00	11 55	7 30
7 50 2001							15 00	11 48	8 22				15 00	11 48	8 22
10 85 2001	10 00	11 50	11 01	5 00	11 49	11 01	35 00	11 48	11 01	20 00	11 50	11 01	70 00	11 49	11 01
11 47 2001							50 00	11 46	11 47				50 00	11 46	11 47
11 55 2001	50 00	11 51	11 54	446 00	11 50	11 54	540 00	11 47	11 53	115 00	11 51	11 54	1151 00	11 49	11 54
12 08 2001				20 00	11 51	11 94	15 00	11 50	11 93	5 00	11 50	11 93	40 00	11 50	11 93
12 70 2001	20 00	11 45	12 41	5 00	11 47	12 41							45 00	11 46	12 41
13 31 2001							15 00	11 52	12 76				15 00	11 52	12 76
13 55 2001	0 60	11 48	12 90				5 00	11 51	12 90				5 60	11 51	12 90
13 75 2001							5 00	11 45	13 12	10 00	11 51	13 13	15 00	11 49	13 13
13 85 2001				5 00	11 58	13 27				0 50	11 31	13 19	5 50	11 56	13 26
11 00 2002	20 00	11 66	11 20				15 00	11 68	11 21				35 00	11 67	11 21
11 15 2002				10 00	11 65	11 32	5 00	11 66	11 32				15 00	11 65	11 32
11 68 2002	20 00	11 65	11 67	49 33	11 65	11 67	36 94	11 64	11 67	15 00	11 66	11 68	121 27	11 65	11 67
12 75 2002				13 00	11 67	12 37							13 00	11 67	12 37
11 10 2003	10 04	11 75	11 35				70 00	11 75	11 35	20 00	11 78	11 36	100 04	11 75	11 35
11 75 2003				30 00	11 76	11 75							30 00	11 76	11 75
11 78 2003	125 00	11 76	11 78	255 06	11 76	11 78	470 67	11 75	11 77	15 00	11 75	11 77	865 73	11 76	11 78
11 50 2004	8 50	11 96	11 71	40 00	11 94	11 71	28 00	11 95	11 71	10 00	11 96	11 71	86 50	11 95	11 71
11 75 2004	15 00	11 95	11 84										15 00	11 95	11 84
11 95 2004	25 00	11 94	11 95	5 00	11 95	11 95	26 00	10 02	11 95	50 00	11 95	11 96	106 00	11 47	11 95
11 98 2004	15 00	11 95	11 97	16 00	11 94	11 97	45 00	11 95	11 97	3 40	11 95	11 97	109 40	11 95	11 97
12 59 2004	10 00	11 94	12 28				10 00	11 96	12 28				20 00	11 95	12 28
10 50 2005	25 00	12 21	11 35										25 00	12 21	11 35
11 19 2005				8 70	12 05	11 62				0 20	11 95	11 59	8 90	12 05	11 62
11 25 2005	10 00	12 10	11 69										10 00	12 10	11 69
14 00 2005 INSTAL	2 00	12 05	12 87	1 29	12 07	12 88	0 36	12 46	13 10	3 03	12 07	12 88	6 67	12 08	12 89
11 75 2006				15 03	12 12	11 97	111 10	12 12	11 97	35 00	12 14	11 98	161 12	12 12	11 97
11 50 2007				10 00	12 17	11 93				1 00	12 15	11 92	11 00	12 17	11 93
11 90 2007							15 00	12 18	12 08	22 00	12 19	12 08	37 00	12 19	12 08
13 05 2007				0 70	12 13	12 46	0 10	12 17	12 49	15 35	12 19	12 50	16 15	12 19	12 50
13 65 2007										1 11	12 17	12 70	1 11	12 17	12 70
9 50 2008	0 17	12 22	11 15	5 55	12 26	11 18	3 90	12 30	11 20				9 62	12 28	11 19
12 00 2008	0 08	12 13	12 09	1 15	12 13	12 53	9 50	12 14	12 10	15 25	12 19	12 13	25 98	12 17	12 13
12 25 2008	15 98	12 22	12 23	26 21	12 22	12 23	41 80	12 22	12 23	25 92	12 22	12 23	109 90	12 22	12 23
11 50 2009	1 00	12 21	12 00							0 05	12 26	12 04	1 05	12 21	12 00
11 50 2011				2 00	12 25	12 08	0 20	12 25	12 08	15 37	12 28	12 10	17 57	12 28	12 10
12 00 2011							0 50	12 28	12 27	2 00	12 29	12 23	2 50	12 29	12 23
Sub total	654 17	11 58	11 63	1126 73	11 52	11 74	2165 45	11 53	11 66	950 18	11 48	11 80	5196 53	11 52	11 70
C Zero Coupon Bonds (Per Cent Year)															
1999	50 10	9 90	6 92	158 10	9 60	6 93	48 50	9 27	6 94	142 50	9 39	6 95	399 20	9 54	6 94
2000	48 50	10 77	7 70	30 00	10 77	7 71	90 00	10 75	7 72	65 00	10 86	7 75	233 50	10 79	7 72
2000(II)	5 00	11 32	7 77	30 00	11 33	7 78	40 00	11 30	7 80	37 00	11 34	7 81	112 00	11 32	7 80
2000(III)	90 00	11 33	7 73	40 00	11 30	7 74	135 00	11 29	7 73	101 00	11 34	7 78	366 00	11 31	7 74
Sub total	193 60	10 52	7 51	258 10	10 14	7 21	313 50	10 82	7 61	315 50	10 55	7 48	1110 70	10 57	7 46
(A+B+C)	1165 57	11 24	11 03	2560 43	11 27	11 31	3003 91	11 34	11 31	1617 60	11 16	11 03	8347 51	11 27	11 22
D RBI's Open Market Operations (Per Cent Yr)	3 56	12 22	12 23	106 12	12 22	12 23	291 80	12 22	12 23	196 67	12 22	12 23	598 15	12 22	12 23
(A+B+C+D)	1169 13	11 24	11 03	2666 55	11 31	11 34	3295 71	11 41	11 39	1814 27	11 28	11 16	8945 66	11 33	11 28
3 REPO															
14 Day Bills															
91 Day Bills	50 00			75 00									125 00		
364-Day Bills															
Govt Securities	778 00			638 60			643 50			622 00			2682 10		
Sub total															
4 State Govt Securities	13 72	12 38	12 49	64 91	12 39	12 46	0 67	12 29	12 59	5 42	12 31	12 20	84 71	12 38	12 45
Grand total (1 to 4)	2387 91			4242 71			5021 21			3633 75			15285 58		

( ) means no trading YTM = Yield to maturity in per centage per annum CY = Current yield in per cent per annum * Yield rates of these sub groups of bills and dated securities have been used for the graphs

Securities with small size transactions and inflation linked bonds have been dropped from the above list but included in the respective totals

Notes 1) Yields are weighted yields weighted by the amounts of each transaction

2) Current yield has not been worked out for treasury bills

compares with 14 per cent of IDBI and ICICI and 14.25 per cent for IFCI.

Other Instruments

As per the data released by the RBI, commercial paper issues totalled Rs 902 crore and Rs 786 crore during the fortnight ending December 15 and December 31, respectively, which were somewhat lower than those in the recent past. The rate of interest ranged from 9.45 per cent to 13 50 per cent were also somewhat lower than in the early part of the year.

The data on certificates of deposit (CDs) were only till October 23, 1998. As on that date, total outstanding amount of CDs issued by commercial banks was Rs 6,214 crore, of which CDs totalling Rs 639 crore were issued during the latest fortnight and they were the lowest for some recent fortnights. The rate of interest ranged from 8.25 per cent to 13 per cent, showing a declining trend.

TABLE 8: AUCTIONS OF FIXED-YIELD REPOS BY RBI

(Amount in rupees crore)

Date of Auction (1)	Number of Days (2)	Bids Tendered: No (3)	Bids Tendered: Face Value (Amount) (4)	Bids Accepted: No (5)	Bids Accepted: Face Value (Amount) (6)	Fixed Cut off Yield Rate (Per Cent) (7)	Estimated Amount Out-standing
01-Dec	3	5	685	5	685	8	6010.00
02 Dec	3	8	1721	8	1721	8	5308 00
03 Dec	4	14	2032	14	2032	8	4438 00
04-Dec	4	11	1186	11	1186	8	4939 00
05-Dec	4	1	50	1	50	8	3268 00
07-Dec	3	4	179	4	179	8	1415 00
08 Dec	3	4	395	4	395	8	624 00
09-Dec	3	1	141	1	[illegible]	8	715 00
10-Dec	4	1	100	1	100	8	636 00
11-Dec	4	2	321	2	321	8	562.00
12-Dec	4	No application received				8	421.00
14-Dec	3	2	49	2	49	8	370 00
15-Dec	3	2	53	2	53	8	102 00
16 Dec	3	1	800	1	800	8	902 00
17-Dec	4	3	2148	3	2148	8	3001 00
18-Dec	4	9	816	9	816	8	3764 00
19-Dec	4	No application received				8	2964 00
21 Dec	3	2	51	2	51	8	867 00
22-Dec	4	1	115	1	115	8	166 00
23-Dec	3	No application received				8	166 00
24 Dec	4	1	15	1	15	8	130 00
26-Dec	3	1	105	1	105	8	120 00
28-Dec	3	5	6	5	6	8	111 00
29 Dec	3	3	- 180	3	180	8	186 00
30-Dec	3	2	57	2	57	8	243 00
01-Jan	4	4	286	4	286	8	343 00
Total		87	11491	87	11491		

TABLE 9: OPERATIONS OF NATIONAL STOCK EXCHANGE (NSE) DURING DECEMBER 1998 – ACTUAL TRADED AMOUNT

(Rupees, crore)

Descriptors	Week ending December 25	18	11	4	Total during December	November	October
1 Treasury Bills	162 63	239 00	223 15	333 94	958.72	1510 27	1096 00
i) 14-day Bills	39 00	5 90	12 50	16.00	73 40	76 81	219 78
ii) 91 day Bills	113 63	213 10	156 15	200 50	683 38	939 96	440 55
iii) 364 day Bills	10 00	20 00	54 50	117 44	201 94	493 50	436.67
iv) Repo			-	.		25 00	1 00
2 Dated Securities	632 73	1528 05	2070 21	1275 49	5506 48	5368 35	4309 15
A GOI Securities	632 23	1491 94	2050 21	1264 84	5439 22	5230 69	4244 06
i) Converted	200 73	470 94	514 21	255 84	1441.72	736 44	331 06
ii) Regular	278 00	786 00	1316 00	648.00	3058 00	2921 00	2130 00
iii) Zero Coupon	113 50	178 00	170 00	262 00	723 50	1316 61	1445 06
iv) Cap Indexed Bonds		-	20 00	-	20 00	36 64	10 00
v) GCB	-	-	-	-		*	
vi) Repo	40 00	57 00	-	99 00	196 00	220 00	328 00
B State Govts Stocks	0 50	36 11	20 00	10 65	67 26	137 66	65 09
3 PSU Bonds	12 10	10 09	121 76	111.14	255 09	65 99	104 67
i) Tax free	12.00	10 00	108 72	80 00	210 72	56 87	82 48
ii) Taxable	0 10	0 09	13 04	31 14	44 37	9 12	22 19
4 Commercial Papers	74 00	75 00	204 00	12 00	477 00	710 50	356 00
5 Certificates of Deposits	-	-	-	55 00	55 00	9 00	69.00
6 Debentures	38 40	27 43	7 50	3 39	76 72	222 30	36 41
7 Floating Rate Bonds	4 75		5 15		9 90	25 00	52 00
8 Others	40 00	121 00	77 16	126 45	364.61	358 09	258.16
Grand Total (volume)	964 61	2000 57	2708 93	2029.41	7703 52	8269 50	6281.39
Average per day							
a Government Paper (1+2)	159 07	294 51	382 23	268 24	281 10	299 67	216.21
b Others (3+4+5+6+7+8)	33 85	38 92	69 26	70 00	53 84	60 47	35 05

- No trading   GCB Government Compensation Bonds

* includes Non-SLR Institutional Bonds, SLR Institutional Bonds, Bank Bonds, Promissory Notes, Units of UTI Company Notes and Zero Coupon PSU Bonds and others

IV
Secondary Market

Dated Securities

With the banks' attention fixed on the movements in the call money market, prices and yields on government paper largely remained unchanged. Transactions were concentrated in 11.40 per cent 2000, 11.55 per cent 2001 and 11.78 per cent 2003 papers. The yield curve showed a normal gently upward sloping behaviour (Graphs D and E). Though the secondary market transactions in dated securities during December (Rs 8,348 crore) were slightly larger than those in November (Rs 7,908 crore), such dealings in 91-day and 364-day TBs were considerably less in December (Rs 2,500 crore as against Rs 5,565 crore and Rs 539 crore against Rs 2,331 crore, respectively)

Though the RBI has been adopting an aggregative open market operations policy so as to offload securities obtained due to support to market borrowings by the government, the size of OMOs during December (at Rs 598 crore) was very moderate compared with November (Rs 3,934 crore) (Appendix Table). Up to November, the OMOs have aggregated about Rs 18,000 crore. Outstandings under RBI's repo window remained low (Table 8). Repo transactions outside RBI were at a normal pace

Gilt Fund

The launch of first-ever gilt related mutual fund was reported to have received good response from the market The Kotak Mahindra Asset Management Company's K-Gilt received Rs 80 crore of funds which will be invested in gilts. A successful performance by K-Gilt could lead to a widening of retail market in gilts which is one of the stated objectives of the RBI. On the day the fund closed for public subscription the sponsoring company was seen to have picked up the zero coupon 1999 security on a large scale. While one can understand the tendency of the fund to look at short tenure paper, this may not serve the purpose of the authorities to widen the market by inspiring players to look at papers of different maturities across the spectrum.

Commercial Bonds

The tempo of trading in PSU bonds remained high during December but that in other commercial papers was sluggish (Table 9). Amongst PSU bonds, tax-free bonds have attracted sizeable trading at Rs 211 crore as compared with taxable bonds at Rs 44 crore.

[V P Prasanth, Rafiq L Ansari and Nandini Sengupta have undertaken the statistical compilations for this note]

Attacks on Minorities and a National Debate on Conversions

Walter Fernandes

There is a pattern in the recent attacks on minorities and the use of religion in a political and economic power struggle. But the situations are different. In Gujarat it is an attack on tribal efforts to protect their identity or free themselves from poverty. In Karnataka it is competition between powerful groups. And in Orissa it is division among the subalterns exploited by vested interests. Conversion functions as a convenient tool to divert attention.

THE beginning of 1999 has been marked by a double legitimation of the attacks on the minorities, particularly Christians in Gujarat and elsewhere. In late December Ashok Singhal of VHP complained that the Nobel Prize to Amartya Sen is a Christian conspiracy meant to open more 'missionary' schools and convert the poor through them. "These Nobel Prizes were only intended to give sanction to Christianity to spread its base in the country" (*The Indian Express*, December 27, 1998). The second is the reported statement of Prime Minister Vajpayee that there should be a national debate on conversions. These statements come in the wake of attacks on Christian institutions in Gujarat and communal tension in Karnataka and elsewhere. Both divert attention from the issue of poverty as a vested interest.

One sees a pattern in these attacks and in the use of religion in a political and economic power struggle. But the situations are different. In Gujarat it is attack on the tribal efforts to protect their identity or free themselves from poverty, in Karnataka it is competition between powerful groups and in Orissa, it is division among the subalterns exploited by the vested interests. Conversion functions as a convenient tool to divert attention.

Conversions Today

One knew that these attacks were guided by vested interests. But for the first time those providing it ideological or other support came out openly to state their position. However, those using the bogey of conversions do not seem to know that the number of Christians has been declining. The 1991 Census shows that they are 2.5 per cent of the total population against 2.6 per cent in 1981. Had there been massive conversions, it would be difficult to explain this decline. High literacy among Christian women and greater urbanisation seem to explain it. To limit oneself to the rural areas, in 1991 female literacy was 56.9 per cent among Christians, 25 per cent among Hindus and 23.9 per cent among Muslims.

On the other hand, one cannot deny that there are some conversions, mainly but not exclusively in the north-east, where more often than not they take the form of 'sheep stealing' from one Christian denomination to another. Elsewhere in India, aggressive religious propaganda is made mainly by Born Again Christian fundamentalist groups that claim to have founded several lakh churches. According to a news item (*The Indian Express*, January 4, 1999), a book recently published in London states that 6,00,000 churches should be founded in India, one in every village, in order to make Christ present in the country. A closer scrutiny reveals that what they call churches are in reality families in which they hold prayer meetings. Most of these families do not even join them later. They claim to have six million adherents in the country. A realistic estimate seems to be around two millions, most of them got through 'sheep stealing'. So the numbers themselves are not big. But the exaggerated claims can provide fodder to those who want to exploit the issue.

Studies indicate that many such fundamentalist groups were founded in the 1970s and funded by the American Eastern Establishment as a counterweight to the anti-Vietnam turmoil. In that sense they are Christian counterparts of other 'charismatic' movements like Hare Krishna and Zen that became popular in the west as well as in the Indian middle class [D'Epinay 1983:44-47]. They diverted attention from the social issues by satisfying individual psychological and emotional needs. The warmth and companionship they provide seem to compensate for the absence of an emotional component in most established religions whose rituals tend to be dry and formal. Besides, they provided security to the younger generation that was growing up in an atmosphere of uncertainty and unemployment. Focusing on meditation and the other world prevented them from turning their insecurity into protest [O'Donnell 1983]. That may explain why most adherents of these fundamentalist groups come from the urban middle class.

Conversion as Protest

On the other hand one cannot minimise the role of conversions as protest by the subalterns. Studies on the late 19th and early 20th century conversions in India show that they were primarily among the dalits and tribals. The missionary who needed numbers approached these classes after he failed to get dominant caste adherents [Grafe 1990:82-83]. The subalterns were open to receive his message if he responded to their aspirations in the context of the destabilisation caused by colonialism. On one side the Bhakti movement that could have provided the 'untouchables' with the social space they required in their search for equality had ended but its spirit was still alive among them. On the other, the colonialist co-opted the dominant classes into the administration. Colonialism does not involve the foreigner ruling the local masses directly but through locally dominant classes. To administer India, the British needed collaborators from these castes and classes [Misra 1961:49-51]. In the context of the end of Bhakti movement, providing them with opportunities of English education and administrative posts was equivalent to choosing the dominants over the subalterns. It strengthened them further.

Besides, in order to take control of land for colonial purposes, the British also introduced new land laws based on the eminent domain and individual ownership. These changes weakened the jajmani system in regions where their presence was the strongest. Jajmani had provided material security to the agricultural labourers and other subalterns, mostly from among the 'untouchables' but had left them with a very low social status. The weakening of jajmani deprived them of material security without in any way adding to their social status [Fernandes 1996:152-54].

These changes also freed the dalits from the system that had till then deprived

them of the possibility of upward mobility. Now they were free to seek liberation elsewhere if such an agency could be found. Most of them did not. So they ended up as bonded labourers or as indentured labour transported in slave-like conditions to plantations in India and other British colonies [Sen 1979:8-12]. A few like the mahars found upward mobility by joining the British army or by commercialising their traditional products [Cohen 1969].

Religious change functioned as one such mode of upward mobility. To the converts it was not merely a religious event but also a search for equality, as such a political act. So in the late 19th and early 20th centuries dalits in many parts of India made the option of turning their caste movements into conversion movements [Aggins and Lochan 1989:142-43]. There were mass conversions to all denominations that they perceived as preaching equality. They joined religions like Islam, Christianity and Sikhism that gave them the hope of liberation from their oppressive state. For example, dalits on the Pakistani side of Punjab joined Islam and those on the Indian side joined Sikhism at the turn of this century and not in the Mughal age [Sharma 1976:219].

One finds an analogous process among the tribals. In Jharkhand, for example, the Permanent Settlement 1793 turned the traditional tikhedars (till then tax collectors) into zamindars. Tribal land, the very centre of their identity, began to be alienated to the zamindars. At that stage, the Belgian Jesuit Constans Lievens who studied their land laws and helped them to save their land came to be viewed as their saviour. Mass conversions followed [de Sa 1975]. In the north-east, Christianisation of the tribals was a reaction to the efforts to sanskritise them. They viewed Christianity as an alternative to sanskritisation sustained by the dominant classes [Downs 1983:3]. Studies [e g, Oddie 1978:30-36] also indicate that the missionary did not always understand their aspirations. Mass conversions were got more by those from northern Europe who had to some extent internalised the egalitarian ideology of the 18th and 19th century political revolutions than by those from southern Europe that had experienced neither the Reformation nor the political revolutions. The former viewed caste as the very antithesis of equality and rejected it though later they came to a compromise.

The Dominants and Subalterns

In most cases dalits did not succeed in attaining equality, particularly in states like Tamil Nadu and Andhra Pradesh where the 18th century sudra converts had moved upward and filled the vacant spaces in the caste hierarchy within the institution [Hudson 1993]. That notwithstanding, this process continues to our days though in a limited form. According to a news item, 10,000 dalits in UP are threatening to join Islam if their grievances are not remedied (*The Times of India*, December 22, 1998). Also the Meenakshipuram conversions of 1981 fall in this category. Those who embraced Islam were dalits with good education and government jobs through SC reservations. But the dominant castes continued to treat them as 'untouchables'. Dalits viewed religious change as a way out of the impasse. Discussion started on whether they should become Muslims or Christians. At that stage, three Christian families among them are reported to have said that their ancestors had embraced Christianity in search of equality but they had not attained it. So they were becoming Muslims. That cast the lot in favour of Islam [Augustine 1981].

Whether the subalterns attained their objective or not, the dominants like the mirasdars in Tamil Nadu and zamindars in the north perceived the conversion of their bonded and other labourers as a threat to their power. They accused the missionaries of fermenting disorder, forgetting that "the conversion was caused by agrarian unrest, but it was not at the bottom of the conflict as the landlords liked to maintain, thus turning the issue upside down" [Schverin 1978:52]. The situation remains unchanged.

In most cases the missionary also attended to the material needs of the converts particularly their education. As a result, that literacy is the highest in tribal regions where the church is active is obvious from census figures. Also my experience substantiates it. I have been on the recruitment boards of some autonomous institutions. During the last few years I have interviewed about 1,000 SC/ST candidates for their reserved seats. Apart from the meenas of Rajasthan who are a somewhat prosperous group, the remaining tribal candidates having a post-graduate degree in the social sciences came from only two regions, Jharkhand and the north-east, both of them having a large number of church-run educational institutions. I am yet to interview a tribal candidate from other regions. Dalit applicants come from the four southern states, the mahars of Maharashtra and the wankars of Gujarat. There was none from the Hindi belt. Christians are a minuscule minority there and inadequate effort has been made to educate them. Besides, Christians are denied SC privileges, as such cannot apply for these jobs even when they are educated.

Studies also indicate that literacy among dalits is relatively high in regions like Tamil Nadu that have witnessed a process of political or religious conversion movements. In Tamil Nadu dalit Hindus have been able to take advantage of the reservations. Since Christians are denied these privileges, the educational status of dalit Hindus is better than that of Christians [Kananaikil 1990]. In most other regions dalits are denied access to education. For example, studies in eastern UP show that the dominant castes make it a point to send their own children to school. But they ensure that no school is built in the village, lest their labourers gain access to it and then either leave the village or demand better wages and working conditions [Jetley 1977:56].

Little wonder then that literacy becomes a threat to people with a vested interest in poverty. So those running schools for them are accused of forced conversions or fermenting disorder. In fact, Christians run institutions both for the rich and the poor. Of the 108 cases of attacks on Christian institutions reported in 1998, one is not aware of any on schools meant for the rich, many of them frequented by the children of the powerful. Conversions also become a mode of diverting attention from such a vested interest. Little wonder then that Prime Minister Vajpayee wants a national debate on conversions but not on growing poverty and illiteracy. He and other BJP leaders have only dissociated themselves from the attacks but have not condemned them.

Besides, the recent events have to be seen as a continuum from the past and as an important step towards fascism. No fanaticism can succeed without a new demon at every stage. One can find a parallel with Iraq. To ensure its ongoing control over the oil resources, the US at first demonised Iran then Libya and now has to keep demonising Saddam Hussein. Similarly the fascist forces in India found a demon in the Sikhs in the 1980s, Muslims in the early 1990s and are now turning their attention to Christians. Myths are created and propagated for this purpose. In 1984 rumours were spread that Sikhs celebrated the assassination of Indira Gandhi [Kothari 1985]. In 1992 it was the myth of a mosque built over a temple. Now it is forced conversions [Sanghvi 1999]. This process should also be seen as integral to the electoral battle and the effort of the Sangh parivar to ensure that the RSS ideology is not sacrificed by the BJP-led government, for its short-term needs [Vyas 1999].

A 'dialogue' of sorts may be held with the newly found enemy, as the RSS leaders did with representatives of Christians, on December 18, 1998. The effort of the RSS at this 'dialogue' was only to try to convince the Christian side that they were in fact indulging in forced conversions. Not discussion was held on this issue. Such dialogues only have a propaganda value. But it is clear that the events of the last few months have been well planned. Otherwise one cannot explain 108 attacks on Christian institutions in one year, 58 of them in Gujarat [Das 1999].

Most such attacks have been on institutions meant for the poor. The exception is Karnataka where some Church run schools were told to install an image of Saraswati before the end of November 1998 and begin the day with 'Saraswati vandana'. Otherwise they would have to pay the price. In districts like Dakshina Kannada (with Mangalore as its headquarters) competition has traditionally been between three dominant groups, Catholics who have held administrative and executive jobs, the Konkanas (goud saraswat brahmins) controlling trade and commerce and the land owning bunts. In recent decades, new groups from the fishing, toddy tapping and Muslim communities have come up as a result of jobs in the Gulf, smuggling and trade. Tension has thus arisen for control over land, trade and other benefits. Party vote banks have been built around these communities and the BJP has gained strength.

In R Udayagiri in Orissa it is division among the subalterns. For many decades moneylenders have used the dalits (Pano) as their agents to exploit the tribals in the village. As a result, there has been traditional rivalry between the two. A majority of Christians in Phulbani and Gajapati districts are panos. The vested interests and political parties have communalised and exploited this division. Several churches were destroyed in Phulbani in 1992 in what was in fact a land struggle. In 1998, the Sangh parivar allegedly used this rivalry to get the tribals to attack the panos [Sethi 1998].

Challenge for the Future

Where does one go from here? The first step is to recognise the problem as political, not religious. The second is to identify one's friends and allies. One notices a major change in the latter. As late as 1997 cases like the parading naked of Fr Christudass at Dumka and the murder of Fr A T Thomas were ignored by most human rights activists outside Bihar. They were seen as of concern to Christians alone. The major change in 1998 is the active participation of a large number of secular-minded human rights activists in protests against the attacks. They viewed it as of concern to every Indian.

The second major change is in the role of the Left. Even before Gujarat reached the front page, other events had created an atmosphere for the type of propaganda one witnessed there. For example, the BJP government of Delhi declared that since during the communion service about half an ounce of wine is used to commemorate the Last Supper of Jesus, churches are not religious houses but places of entertainment. As such they should be taxed as commercial centres. Before Christian leaders could get their act together, the Left made a political issue of it and got the government to withdraw the order. After the rape case in Jhabua and after the Gujarat events too, the Left was prominent in extending its support. After the Nashik ultimatum to 'missionaries' the Left took an active part in the demonstration held in Mumbai.

That is a major change from the 1981 CPM politburo resolution that cautioned its cadres against interacting with Christian activists for fear that it may be a reactionary ploy. Two years later the RSS journal *Manthan* published an article stating that Liberation Theology is one more tool Christians have found, to attract the poor and baptise them [Agarwal 1983]. Its position has remained unchanged since then. But there has been a better understanding between progressive Christians and the Left. The two have worked together on some issues without necessarily agreeing on every point. Besides, the new thinking generated by the Second Vatican Council of Catholics and the 1972 Nairobi meeting of the World Council of Churches played an important role in the understanding of evangelisation as liberation from poverty and exploitation. The Liberation Theology that grew among the subalterns of Latin America and the Philippines made an impact also on other continents of the south. In this approach, the Gospel is viewed as the proclamation of Jesus the liberator. An unjust society is sinful. Evangelisation would then be liberation of the oppressed from this social sin, unlike in the past when focus was on individual sin. Evangelisation is thus understood as proclaiming the liberative message of Jesus. Baptism is not its ultimate objective [Alfaro 1986].

These changes provide the first building block of a new secular alliance. The third block has to be the coming together of the minorities. In building it, Christians have to acknowledge that they have not taken an active enough part in communal matters. Till about 1980 most of them viewed communal riots as of concern to Muslims and Hindus alone. Many did bring relief to the victims but did not show adequate solidarity. Like the relations with the Left, the 1980s saw changes in the attitude of many Christians towards the minorities. The ongoing involvement of several of them in social action and advocacy with the oppressed and activists of different persuasions has had a salutary effect on both sides. Among other changes one may mention that after the 1984 massacre of Sikhs in Delhi, Christian leaders brought their adherents together for a reflection on the events. After the demolition of Babri masjid, the Church apex bodies were among the first to issue statements of concern and solidarity with Muslims.

Thus much has happened since the 1980s. But many more steps need to be taken for all the minorities to form an alliance with the secular and democratic forces. There is a danger of these moves being limited to a few social and human rights activists and a section of the leadership. Efforts have to be made to reach the masses. It is because fascism can be stopped only through a strong alliance. It cannot be done through a national debate on the pretext the criminals use to legitimise their action. The guilty should be punished. Simultaneously a broad based secular alternative has to be found. That is the challenge of the progressive forces.

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What Is Bt and What Is Terminator?

Suman Sahai

Trials of a genetically altered cotton variety (Bt cotton) conducted by the American company Mosanto which also happens to own the terminator technology have provided the trigger linking the two because of coincidence and confusion. The two are not related except for the fact that they are both genetic creations.

STRANGE terminologies like Bt and terminator are in the air and with it there is rampant confusion. Bt stands for bacillus thurengensis which as the name suggests, is a kind of bacteria, much like the bacillus that causes leprosy or tuberculosis. The terminator technology is the monstrous new genetic tool by which you can design seeds with in built sterility. The two are not related except for the fact that they are both genetic creations. Both happen to be in the news together and are linked together because of coincidence and confusion. Trials of a genetically altered cotton variety (Bt cotton) conducted by the American company Monsanto have provided the trigger because Monsanto also happens to own the terminator technology. What then exactly are these things?

The Bt technology which was developed about 10 years ago is designed to confer disease resistance to certain crops against pest attacks. The essentially simple technology has involved cutting out a gene from the bug called bacillus thuringensis and using the tools of recombinant DNA to transfer this gene not into another bacillus but across the species barrier into a plant, in this case a cotton variety. This transcending of the species barrier, makes the gene very foreign to the cotton genome and therefore this cotton becomes a transgenic variety. The reason why this approach is being tried in plant types, and not just cotton, is because it provides an opportunity to build a biological pesticide into the plant itself.

Cotton pests, specially bollworm are a major problem, as the spate of recent cotton farmer suicides have shown in the most tragic way. Much of the chemical pesticide on the market is adulterated or spurious and therefore not effective. The in-built pesticide approach is very attractive for two reasons. One, the farmer is not sold short by unscrupulous pesticide dealers and two, the environment is spared the toxic burden of chemical sprays leaching into the soil, air and water and poisoning them. However, as always in something that sounds so good, there could be catches which we must watch out for. But first how does the Bt resistance work?

The Bt gene once ensconced in the cotton genome proceeds to do exactly what it did in the bacterial genome, namely, produce a toxin as a by-product of its metabolism. Small concentrations of this toxin course through the sap of the cotton variety. When the dreaded bollworm, the most pernicious pest of cotton alights on the plant and proceeds to drink the sap, it is supposed to get a dose of the toxin and drop dead. That is the rationale and the design of the experiments on Bt disease resistance. That is what Monsanto has created: a cotton variety called Bollgard, which because it is carrying the Bt gene is supposed to provide resistance to bollworm. What if any are the pitfalls in such an approach?

The first question mark on the Bt mode of pest resistance is that the gene construct which was effective in providing resistance appears to be breaking down. This means that it is not producing the toxin in the cotton plant as it was originally intended to do and therefore not conferring resistance to bollworm. The second way in which the Bt resistance is failing is by creating bollworm strains that are becoming resistant to the Bt toxin and not being affected by it.

The other danger that is posed by the Bt cotton and all other transgenic varieties, is the danger of the foreign gene escaping from the original transgenic plants where they were put and moving into related plant species. This is possible via cross pollination. The pollen cells of the transgenic plant contain the foreign gene like every cell of the transgenic plant does. During pollination, pollen carrying the foreign gene can fertilise other plants that are not transgenic. So, if my neighbour has chosen to grow a transgenic variety and I have not, I cannot protect my crop from pollution with the foreign gene because there is no way of controlling pollination.

The other thing that can happen is that the pollen can fertilise and therefore transfer the foreign gene into related and wild species. Since the transgenic technology is so new, we do not know what effects foreign genes like bacterial genes can have if they start moving from species. Once they are out in the field, we cannot control them. There is serious apprehension on this score. Scientific studies have shown that pollen can be transferred across very large distances and can transfer the foreign gene into plants growing far away. The dangers of gene pollution of this kind are therefore very real and that is the reason why testing for transgenics in the field has to be conducted under strictly controlled conditions which are specified in biosafety protocols designed for these varieties. The biosafety regime includes safeguards like physical containment, covering the field with plastic sheets during pollination and land tracts isolating the experimental plots from farmers' fields. In addition to this, data needs to be collected from the field constantly to see whether the foreign gene has escaped from the experimental plots to neighbouring fields.

To return to Monsanto and its transgenic tests, the company should be penalised for its cotton trials not because the variety contains the terminator gone but because the company has flouted all biosafety regulations. This could mean much more than endangering farmers' crops in nearby fields, such negligence could carry the foreign gene, goodness knows where and with what consequences. This is a very grave offence. It may not be far fetched to accuse Monsanto of being callously negligent in their field trials because they think they can get away with cutting corners and doing shoddy tests in India which they would not dare to do in their home country, the US.

In India awareness about the new developments in genetics and agriculture is very poor, specially in rural areas. Never mind the farmers, what is shocking is the utter ignorance of the scientists and scientific institutions working on the new areas in genetics and biotechnology. It may be recalled that just a few months ago, the experimental plots with standing crops of a transgenic variety had destroyed in the field in Delhi since safety regulations were not being complied with. This was incidentally at a reputed national facility. Apart from biosafety requirements, transgenics cannot be tested in the field without the informed consent of the region's farmers. Monsanto has been conducting its tests without taking local farmers into confidence or informing them. This is an obnoxious attitude apart from being a dangerous one. Monsanto's licence to test Bollgard cotton should be cancelled for these reasons.

Terminater Seed

Now to come to the terminator. This technology is also based on a genetic construct. Here two gene systems have been brought into play to produced seeds with an in-built mechanism that aborts development of the embryo so that germination cannot take place and the seed is rendered sterile. The self-destructing seeds are actually hybrids produced by hybridising two transgenics, each containing one of the two gene systems. It is interesting that even when the two gene systems are brought together in the hybrid seed they are viable and can germinate. In order to control the induction of sterility, a chemical switch has been built in. This switch can be activated by soaking the seeds in tetracycline. Once the tetracycline soaks into the seed tissue, it switches on one of the gene systems which sets in motion the chemical process which will abort the embryo. So in practice, the seed company can produce as much of the seed as they want and just before selling it to the farmer, they can treat the seeds with tetracycline to switch on the sterility inducing gene system.

When the farmer buys this seed from the company, he can grow one crop from it but the seed that sets in his crop when it matures, will not have the ability to germinate. The farmer will thus not be able to save viable seed from his crop for the next sowing and will be forced to return to the seed company for new seed. This establishes total control of the seed company on production and sale of seed. The terminator technology is miles ahead of the patent system in establishing the monopoly of the multinational seed companies on the seed markets of the developing world. The avowed goal of multinational companies is to capture the vast potential of the seed business in India and China and the countries of south and south-east Asia, all burgeoning agricultural countries with growing seed markets.

At present the terminator gene system is being tried out in cash crops like cotton and tobacco. In this context it is alarming that Monsanto with its big take in cotton varieties has bought the Delta and Pineland company, co-owners along with the US government of the terminator technology. This means that Monsanto now owns the terminator gene systems and if it does not have a terminator cotton today, it almost certainly will have one tomorrow. This must be anticipated and Indian agriculture policy must take the requisite legal steps to ensure that Monsanto cannot bring terminator cotton into India either for testing or for commercial use.

Cotton and tobacco however are only the first focus of the terminator system. In principle this sterility inducing mechanism can be incorporated into any kind of crop. The next round of crops that are to be tried out are essential food crops like rice, wheat, pulses and millets. If the terminator technology should be successfully transferred into these crops (and there appears to be no reason why it cannot), the implications for global sustenance and food security could be quite horrific. Rice and wheat are the staple food of three quarters of the world's population. With pulses under the terminator hammer, all aspirations of adding nutritional security to rudimentary food security, would fly out of the window. For, those who argue that no one is compelled to buy seeds from MNCs and those who wish to, can continue to get their seed from wherever they are getting them today, do not understand the fundamentals of plant breeding, seed production and the practice of agriculture.

With the new breed of controlling instruments like patents and terminator, or for that matter, the transgenic and the hybrid, the control of the seed company over seed production is complete, to the exclusion of any participation by the farmers. With these instruments of control playing in tandem with an inexplicable and highly detrimental science policy that is coming into force in India and other developing countries, the farmer will be painted into the corner for essentially two reasons. The first is the fact that public sector institutions like the Indian Agricultural Research (IARI) or the stations of the Indian Council of Agricultural Research (ICAR) that are the centres of agricultural research and plant breeding are facing tremendous cuts in their research budgets. These centres produce new varieties of all crop types constantly. These new varieties are available to the farmers who produce seed and disseminated. The farming community has thus emerged as the nation's largest seed producer and distributor, producing over 85 per cent of the country's seed requirement.

Now with severe reductions in research funds, the capacity of public institutions to breed new varieties will also be severely diminished. In time they will cease to be the primary source of new varieties. This space will be occupied by private seed companies, specially foreign seed companies who have been clamouring for entry into developing country seed markets. When private seed companies become the primary suppliers of new varieties then certain things will happen. First, the farmer as seed producer will disappear. Second, the range of varieties produced in each crop will decrease, causing even worse genetic erosion than we are facing today. This will happen because production in seed companies is guided by profit margins, not the compulsion to provide a range of reasonably priced seeds. As past experience has shown, MNCs produce just one or two varieties and then push them on the market.

The other thing that will happen is that the farmer's source of new varieties will increasingly become only the private seed company. How will this happen. It needs to be understood that crop varieties growing in a specific area do not grow there successfully for ever. A particular variety which has been producing good results for the last few years could suddenly lose its disease resistance and become susceptible to pests. The soil and water conditions could change, salinity may increase or waterlogging take place. Deforestation in nearby areas could change the microclimate. Many things happen in

nature that can cause the collapse of a variety which had been well adapted and growing successfully.

When this happens, the variety needs to be replaced and another one brought in which can reintroduce the characteristics of yield and disease resistance. Given the fact that the public research institutions are getting pushed out of the business, the source for new varieties will increasingly become the private seed company. Once this happens, they will sell their seed on their terms and the farmer's choice will be restricted to buying from the seed company or giving up agriculture. In this fashion, the imperative of varietal replacement in the field will eventually force the farmer to turn to private companies for seed.

If the terminator technology is allowed to enter India the consequences could be mayhem in Indian agriculture leading to reduced availability of food and possible starvation deaths. This is no far fetched doomsday scenario. It is known that pollen carries the foreign genes of transgenic crops across large distances and transfers it into other crops. The terminator gene through the method of cross pollination could reach all kinds of crops in all kinds of places, inducing large-scale sterility. If one keeps in mind that the terminator application is planned for staple food crops, large-scale sterility can only have one consequence: imperilled food security and near certain starvation deaths.

Health and Safety at Workplace

Loopholes in Law

Jagdish Patel

Although the Factories Act provides for adequate health and safety monitoring at the workplace, its implementation has been consistently poor and inefficient. A survey of the prosecutions conducted under the act in Gujarat.

THE Factories Act was enacted in India in 1881, after the demand raised by Lokhande and his colleagues, to stop child labour and prevent accidents in factories. There was a provision for guarding the rotating parts of machine in this act. Thus the history of Section 21 of present Factories Act 1948 dates back 115 years. In spite of this provision hundreds of workers still get maimed and die due to lack of adequate machine guard. Society is not mature enough to implement a century-old provision.

The implementing authority for Factories Act is the state government. The labour ministry appoints labour commissioners under whom is chief inspector of factories and his team. In Gujarat there are 96 inspectors working in 14 offices. The International Labour Organisation (ILO) standard is one inspector for every 150 factories. There are 22,000 registered factories in Gujarat. As per these standards, Gujarat would need 146 inspectors in all. Factory inspectors in Gujarat are also assigned the responsibility of implementing the Payment of Wages Act, Maternity Benefits Act, equal pay for equal work rules, rules for disabled person employment, part of Environment Protection Act and a few other. The Factories Act is in 11 chapters and 120 sections; the state government has enacted the Gujarat factory rules comprising over 114 rules and several sub-rules and schedules. Thus the job of a factory inspector is definitely a challenging one. The lack of budget allocation is a major obstacle in the development of this regulatory authority.

An evaluation of the implementation of the act can be done by looking at the number of accidents/incidents/injuries/fatalities on one hand and the number of prosecutions and extent of punishment, on the other. Implementation of legal provision is directly related to awareness, knowledge and the commitment of the society in general and factory inspectors in particular. Poor infrastructure for implementation makes the law a useless piece of the Constitution. The major objective of the act is to prevent accident and injuries or lower the number of such cases. Unfortunately, the law is not utilised for this but is used, to some extent, to frame charges after the accident/incident has taken place.

Presented here is a study of prosecutions initiated by the Factory Inspectorate, Baroda in 1995 for violations of provisions for health and safety in the Factories Act. In all 140 complaints were filed in criminal court against 97 factories.

Fatal Accidents: As per the Factory Inspectorate Office (FIO) 15 fatal accidents were registered in 1995 in Baroda. Of these the FIO initiated prosecutions only in eight cases. Presumably, in the remaining seven cases, fatal accidents took place even though a law was not violated. Thus, in 47 per cent of cases the law has not helped to prevent the accident. Is the present law poor to this extent? To examine this, details of each accident would be necessary, which is not available.

Among the eight cases for which complaints have been filed, two are for not providing personal protective equipments, two cases are about violation of Section 32(c) which is about safety of workplaces at a height. One case is about the lack of machine guarding while another has violated the provision regarding testing of pressure vessels. There is no information about one case. There are 11 cases against seven factories.

As per Section 88 and rule 103, certain accidents have to be notified to the FIO within the stipulated time period. Definitions of 'factory', 'manufacturing process' and 'worker' are given in the act. PTRC collects clippings from local newspaper about work accidents. All the accidents occurred during manufacturing process are taken cognisance of by the FIO. 'Construction' is not considered to be part of 'manufacturing process' by the FIO. Based on clippings we have prepared a list of fatal accidents in Baroda in 1995. It is possible that all the workplaces in our list may not be registered factories. But, if we look at the list, it includes names which are certainly registered factories, e g, Indian Petro Chemicals (IPCL), Paragon Engineering, Modern Petrofills. Fatal accidents in these units are not included in the list of fatal accidents prepared by the FIO. All of these did not occur during 'construction'. At least five fatal accidents can be added to the official list of fatal accidents. (See Annexure Tables 1 and 2.) In response to an article published in Gujarati, the FIO clarified that all fatal accidents even those occurring during activities other than manufacturing (as defined in the act) like construction, are taken note of. After investigation fatal accidents which have occurred in non-manufacturing period are labelled as 'non-legal', while others are labelled 'legal'. No action is initiated for

Table 1: Type of Industry

Industry	No of Prosecutions
Chemical/Paint/Rubber/ Pesticide/Pharmaceutical/ Soap and Detergent	45
Engineering/Battery	27
Electrical/Electroplating	4
Textile	2
Wood/Tobacco/Food	4
Unidentified	15

TABLE 2

Industrial Area	No of Units Prosecuted
Gorwa/Pratapnagar/Sardar Estate and other city areas	14
Makarpura	23
Nandesari	24
Savli-Manjusar-Tundav-Gothda	10
Vaghodia	9
Karjan-Por-Menpura	3
Ankhol-Umaraya-Bhayali-Bil	4
Chhani-Dasrath-Moksi-Poicha-Rania-Petro	7
Ishwarpura-Garadhia-Samiala	3

TABLE 3

No of Prosecutions	No of Units
1	69
2	19
3	5
4	2
5	2

'non-legal' accidents. Non-legal accidents are not taken account of in the official data on accidents. Using this ruse some employers probably get an 'advantage'. For example, in IPCL a worker fell down and died. This is not in the official list. In another incident a worker died during fabrication at Modern Petrofills; this too, do not find a place in the official list.

There are 250 industrial units in Gujarat identified as Major Accident Hazard (MAH) units, out of which 55 are in Baroda district. It is natural that FIO keeps a close watch on these units to prevent major mishaps. As per the official list, no fatal accident took place in any such unit, though our list includes one such unit. During the year 1995, FIO filed 16 complaints against nine MAH units for various violations – three are for failing to provide shower near storage of acid/alkali, two are for absence of local exhaust system to prevent free movement of toxic gases/dust in the workplace, and one for not providing a guard on the moving parts of a machine. It is noteworthy that four complaints are against public sector like GSFC.

It would be interesting to know which violations are taken seriously enough by the FIO to lodge criminal complaint or which violations prompt action from the FIO. In all, there are 140 cases. Ch IV of the act has provisions for safety consisting of 20 different sections. Of these eight sections have attracted 56 cases. In addition 67 cases are registered for violation of Gujarat factory rules. Of these 31 are for different schedules of rule 102, 12 cases for violation of Rule 60 and 20 for Rule 61.

Rule 61 refers to pressure plants. Sub-rule 61(6) is about testing of pressure plants at regular intervals and test certificate to be kept in Form No 11. Out of 20 cases, 14 are for the violation of this sub-rule. All 12 cases filed for violation of rule 60 are violations of sub-rule 60(2). This sub-rule provides for testing of chain pulley block, rope and other lifting tackles and the certification in Form No 10. A newsreport (July 3, 1994) gave details of 114 prosecutions against 52 factories in Ahmedabad region. The majority of the cases were for the violation of the same Section 21, rule 60 and 61. Under rule 102 the state government has declared some of the processes as dangerous. FIO, Baroda lodged 31 complaints for violations of provisions made under this rule. Out of these 10 are for lack of shower near storage/handling of acid/alkali (Schedule 12-5), while 10 others are for Schedule 24, which is about safety during welding/cutting.

Some 56 complaints pertain to eight different provisions of the act. Of these 26 are under Section 21, 17 for 21-i-4b and nine under 21-i-4c; 10 cases are for violation of Section 37-i-c which provides for effective covering of all sources of spark to prevent fire. A large number of injuries and fatalities happen as a result of fall from a height. Section 32(C) provides for giving adequate protection to those working at a height – five complaints have been registered under this section.

A newsreport published in *Indian Express*, August 23, 1996 gave details of 385 prosecutions against 85 factories registered in a period of six months in Saurashtra region. Excerpt: "...The focus is now on the small pottery units, which includes the floor and wall tiles manufacturers, which employ child labour. Many factories do not even have a single fire extinguisher or proper first aid boxes for use in case of emergency. In the small chemical or dye units, workers move around bare feet in chemical waste and residues resulting in skin disorders and loss of sensation..." Thus here is a new, welcome trend in the priorities of the FIO.

Which industry is a major violator or which industry is targeted by the FIO? Though the information based on which this study is done does not name the type of industry or product, we have tried to classify the list from the name of the industrial unit. In 15 cases the name was not suggestive of the nature of the industry. In the remaining 82 units, 45 are chemical units including chemical, pharmaceutical, paint, rubber, detergent, soap, etc (Table 1).

ANNEXURE 1. FATAL ACCIDENTS RECORDED BY FIO

Name of the Unit	No of Prosecutions	Violation Charged
Amber Sugar, Menpura	2	Sec 61 C/61-1-C
Fibre Steel, Makaerpura	1	Sec 7-a-2-a
Industrial Oxygen	–	No prosecution
Pappu Product, Sardar Estate	1	Sec 21-1-4B
Lakhanpal National, Makaerpura	1	Sec 32-C
Satyadev Chemicals, Bhayli	1	Rule 102 Sch 12-4
Jaybharat Steel, Porbandar	–	No prosecution
Jambu Organics, Poicha	2	Sec 32-C Rule 103
Standard Pesticide, Nandesa	3	Rule 102 – Sec 15-12
Asia Brown Boweri, Maneja	–	No prosecution
Gujarat Refinery	–	No prosecution
Dynamic Rubber, Vaghodia	–	No prosecution
Priya Tiles, Porbander	–	No prosecution
Punjab Steel, Baroda	–	No prosecution
Amar Sugar, Bharthana	?	No information

ANNEXURE 2: FATAL ACCIDENTS IN 1995, REPORTED IN NEWSPAPERS

Name of the Unit	Injury	Fatality	Reason
Sugar Factory, Menpura	1	1	–
Indian Oxygen, Karjan	–	1	Cylinder Burst
Paragon Ind, Nandesari	–	1	Fall of object
Gujarat Quin, Tundav	–	1	Affected by gas on 5-10-94
Shrinathji Plastic, Porbander	–	1	Fire
Modern Petrofills, Porbander	2	1	Pipe broken during fabrication
Satyadev Chemicals, Bhayali	2	1	Acid splash
Sarabhai Chemical	–	1	Monkey jumped on him
Sarabhai Chemical Poicha, Savli	–	1	Fall from height
PVC Plant, IPCL	–	1	Fall from height
Asia Brown Boweri	–	1	Fall from height
Jaybharat Sterel, Probander	–	1	Electric current while taking bath
Darshana Fabrication, Wadi, Baroda	–	1	Electric curnet
Amar Autorikshaw, Pratapnagar, Baroda	–	1	Shirt entangled in lathe machine
Dymic, GIDC, Waghodia	–	1	Burns
Mamara Factory, Savli	–	1	Sari entangled in machine
Punjab Steel, Baroda	–	1	Iron Rod pierced stomach
Sugar Factory, Karjan	–	1	Fell in hot pan
Rupal Sugar, Karjan	–	1	Sari of 13 years old girl entangled in machine

Out of 97 factories found violating the act, 24 are situated in Nandesari area and 23 are in Makarpura industrial area. Industrial units in the city area like Gorwa, Pratapnagar, Sardar Estate, etc, account for 14 cases (Table 2).

Out of 97 factories, 69 account for only one complaint of violation while 19 have been slapped with two violations. There are two units, both engineering which account for five violations at a time; four units have been visited twice in a year and both the times they were found to be violating various provisions. Out of these, three units were found to be violating the same provisions as observed during earlier visit (Table 3).

The information base of this study does not contain a complete list of inspections carried out by FIO, Baroda in 1995 for health and safety. It gives information of visits with reference to the prosecutions only. We compared these dates with our list of accidents as reported in the newspaper. Newspaper had reported 21 cases of fire in factories, only two units have been prosecuted by the FIO – some of the major fires which took place in 1995 are the fire at Kohinoor Flour Mill, Gorwa, Bahubali Chemicals, Nandesari and naphtha tank of Gujarat Refinery. No action has been initiated against any of these units.

News clippings list 42 accidents. In 33 accidents no prosecution has been filed by the FIO. In the remaining nine units, 12 violations are observed by FIO and complaints have been lodged accordingly.

There is no clear information on whether violations were observed during routine inspection visit or during the visit after accident. While comparing the information with that of news clippings, many gaps are seen which may be for two reasons: Either all the accidents are not reported by the newspaper or some of the violations were observed during routine visit of the inspectors. Detailed research work is needed here.

The logical end of any prosecution is punishment, though punishment is not the ultimate aim of the whole exercise. Out of 140 cases against 97 factories, verdicts were passed in nine cases against five units at the time of collecting information. Fines imposed ranged from Rs 1,400 to Rs 5,000.

Framing charges is an important feature of any prosecution. Future course of legal action is directed by the charges framed. It would be important to know the extent of punishment suggested by the law. Section 92 reads: "...Provided that where contravention of any of the provisions of Ch IV or any rule made under Section 87 has resulted in an accident causing death or serious bodily injury, the fine shall not be less than Rs twenty-five thousand in the case of an accident causing serious bodily injury". After this amendment, four fatal accidents took place in Ankleshwar industrial area, in four different industrial units. All four units were prosecuted by local FIO. All four were found guilty by the court. Two of them were fined Rs 5,500 while two others were fined Rs 3,000. The charge against all four was violation of Section 7.[1] On the contrary, in a complaint of violation of rule 102, Schedule 12-13 against Gujchem Distillers, Bilimora, the court verdict was a fine of Rs 3,000 with one month imprisonment, even though this was not a case of accident or injury. Recently, in an accident in Ahmedabad, a worker lost three of his fingers, the occupier was fined Rs 50,000.

Workers and other social organisations, universities, researchers and media have failed to generate an atmosphere conducive to demanding that violations of provisions for workers' health and safety are considered seriously and the culprits are adequately punished.

As per the need of the time, laws are amended, if enough pressure is generated.

ANNEXURE 3: VIOLATIONS OF FACTORIES ACT AND RULES

Section	Description	No of Prosecutions
21(1) 4b	Fencing of machinery – every part of tran M/c	17
21(1) 4c	-do- -every dangerous part of any other machinery	9
28(1) aii	In every factory every hoists and lift shall be properly maintained and shall be thoroughly examined by a competent person at least once in every period of six months, and a register shall be kept containing the prescribed particularls of every such examination	2
28(1) c	the maximum safe working load shall be plainly marked on every hoist or lift, and no load treater than such load shall be carried thereon	2
28(1) e	Interlocking system for gate of cage to be provided	1
30(1)	notice indicating maximum safe working peripheral speed of grindstone or abrasive wheel, the speed of shaft and diameter of the pulley necessary to secure such safe peripheral speed	1
32 (C)	Safety of the person working at height	5
33(1)	Vessel, sump, tank, pit or opening in the ground to be securely covered or fenced	3
36(2) b	Work permit to be issued for working in confined space	1
37(1) c	execution or effective enclosure of all possible sources of ignition	10
40(1)	Inspector can specify measures for building safety	5
Rule 61(6)	Form no 11	14
R 61(1) and (2)	PRovisions for pressure plant	6
R 60(2)	Examination of hoist/lift in form No 10	12
R 24(3) ii	Specification of accident in stipulated time period to the inspector	2
R 56(3) 6b	Guard to the circular saw used in woodworking	1

ANNEXURE 4: VIOLATION OF VARIOUS SCHEDULES OF RULE 102 OF GUJARAT FACTORIES RULES

Schedule No and Sub-Rule			No of Prosecutions
12.	Manipulation of acids alkalis	12	
	(5) water facility – arrangement of shower		10
	(6) Cautionary notice		2
08	Blasting Regulations	2	
	(2) Prohibition of sand blasting		2
24:	Welding/cutting operation with use of LPG/Acetylene/Argon	11	
	(2) 1 Gas cylinders not to be stored in the room where welding/cutting is being done		2
	(2) 7 Equipment - Fire extinguisher to be provided near weldong/cutting place		3
	(3) 2 Place of welding/cutting to be enclosed by stationery or portable screen		3
	(3) 5 Log book of examination of equipments and register of trained workers to be maintained		1
	(3) 7		1
	(5) 3		1
15:	Manufacture and Manipulation of Dangerous Pesticides		
	(6) Efficient exhaust draught to be used		1
03	Manufacture and repair of electric accumulators	2	
	(2) Definitions		1
	(3) Prohibition relating to employment of women and young persons		1
10:	Manufacture of chromic acid or manufacture or recovery of the bichromate of sodium, potassium or ammonium		
	(4) Washing facilities		1
11:	Manufacture or manipulation of carcinogenic dye intermediate		
	(5) Exhaust draught to be provided		1

After the Bhopal tragedy in 1984, the Factories Act was amended in 1987 while Gujarat Factory Rules were amended in 1995. While looking at the list of violations observed by FIO, one can note that the amendments are not translated into action. Provisions in Section 41-B, 41-C and 41-H are given weightage by Section 94 which provides for fine and imprisonment for violation of these sections. Section 41-F, too, is important for the health of workers. Not a single complaint is registered for these violations. There is urgent need to bring about change in attitude of inspecting staff. The status of occupational health is extremely poor in this country. There are some provisions for notification of occupational diseases like Section 89 and rule 104, but not a single violation has been filed. There is an urgent need for monitoring workplace environment. Right now there is only one industrial hygiene laboratory in the state. The number should be increased to four – one each for four zones, viz, Surat, Baroda, Ahmedabad and Rajkot.

Note

1 Charges of violation of Section 7 if proved do not attract fine as heavy as charges of violation of provisions of Ch IV or Section 87. Perhaps, charges framed under Section 7 are deliberately done so to help culprits.

ASEAN Co-operation: Reconsidering Non-Involvement

Vejai Balasubramaniam

While the principle of non-involvement has provided the impetus for regionalism within ASEAN, it is also hindering the greater integration of the member countries as governments pursue their nationalist agendas.

THE centrepiece of Association of South-East Asian Nations (ASEAN) co-operation is the idea of consensus and non-involvement in the internal affairs (read politics) of member states. But, while the spirit of consensus where decisions pertaining to ASEAN are arrived at and adopted following agreement of all member states appears a sound principle reflecting broad democratic ideals, that concerning non-involvement is not. To be purportedly not taking a position on an issue is in fact to have taken a position. In the case of south-east Asian politics this would mean a tacit support for the ruling government of the day with contradictory effect for regional integration. That is, on the one hand while the idea of non-involvement appears to have provided the impetus for regionalism, it appears to be on the other hand to be hindering the process of expediting greater integration as governments pursue their own nationalist agendas.

Following decolonisation at the end of the second world war, the objective of securing national independence was the main concern of the countries in the region. Here, two factors – communism and the national ambitions of the newly independent states – came to be viewed as threats by governments in the region. These two factors provided the impetus for regional co-operation in ASEAN.

Conceived as a social and cultural association ASEAN was seen as a vehicle which would help enhance understanding and promote friendly co-operation in the region. In this period, competition between countries resulting from the national ambitions of respective countries tended to receive slight attention as ASEAN's main concern was with keeping communist expansion in check. Thus, for example, the military annexation of East Timor by Indonesia was conveniently ignored as were ongoing contradictions in Malaysia-Singapore relations following the latter's split from the federation in 1965.

In the post-cold war period the contradictions which underlined relations between states in the region resurfaced and while they tended to be shrouded in the rhetoric of ASEAN consensus, they have nevertheless become patent in the wake of the economic crisis which has come to affect the region. Following 1997, the once touted Asian tiger economies are experiencing an alignment of sort and are in the throes of becoming harmless puppies. Gone was the Midas touch of their governments and with it their sense of confidence. The 'Asian values' debate, which the boom years had spawned and was set to challenge Weber's thesis in *Economy and Society* and the *Protestant Ethic* as well as discourses on Orientalism and the post-colonial discourse school spawned by it, has become a dead letter.

Henceforth, the aim of securing national interest has become paramount and countries which are seen as profiting at the expense of their neighbour becoming the object of disdain. The external threat has been packaged anew by governments. Turning to the Malay world, Singapore has unfortunately become the focus of much of the discontentment and even been blamed for exacerbating the crisis. Singapore's advanced infrastructure undoubtedly ensured that it was well poised to capitalise on the region's modernisation which was spurred by foreign capital. That is, with its modern infrastructure (both in the physical and services sectors) foreign capital interests intending to penetrate the region invariably used Singapore as their regional base. (This was also assisted by Singapore's ability to package itself as an island of calm in a sea of uncertainty.) Thus the modernisation of the Malay world had greatly contributed to Singapore's economic wealth.

At a time when the region was economically the most dynamic in the world the advances Singapore made tended to be marginalised. For its part, Singapore has come to see the crisis as stemming from systemic problems inherent to economies such as Malaysia and Indonesia where the nationalist objective to create a national bourgeoisie has among other things given rise to unsound disbursement of loans, etc. At the same time, it is also easy for the Singapore authorities to point out that it is its advanced status, economic and political stability and needs that has helped expedite its neighbours' modernisation. This notwithstanding, the fact that the economic crisis has come to knock on the door of politics (to use Trotsky's comment on the kulaks entering the door of politics of the Soviet state in the 1930s) such that the democratic states in south-east Asia, Malaysia and Singapore, stand apart as the two countries which are yet to experience leadership change, the bogey of external threat has resurfaced and contributed to acrimonious debates between them.

As of July last year (the time when the economies began their downward slide) three issues proved contentious. The first was related to Singapore's relocation of its customs and immigration facilities to Woodlands just across the causeway from Johore – Malaysia's southern most state – with repercussions for rail-bound passengers travelling to and from the republic. Since the construction of the causeway and the rail link which ran alongside it from Johore to Singapore rail-bound passengers travelling to and from the republic would embark and disembark at the Malayan Railway and following independence Malaysian

Railway terminus at Tanjong Pagar (also known as the Tanjong Pagar Station) located at what is now prime land close to the heart of Singapore. The Singapore authorities had already made mention to their counterparts in Malaysia of the decision to relocate and high level meetings had been held over the past two years. Most of these meetings were inconclusive, during which time the Singapore authorities had gone ahead with infrastructure development in Woodlands, while keeping their Malaysian counterparts informed. But when the date of actual relocation approached in May the Malaysian authorities voiced their disapproval.

That the authorities in Malaysia had been silent stemmed in large measure from their concern over the economy which had begun to face a severe battering. The country was posting the worse economic growth rate since independence; the Malaysian ringgit had depreciated by some 60 per cent against the greenback and was continuing its downward slide; Malaysians were transferring funds to Singapore banks which were offering lucrative interest rates; unemployment figures were set to rise as companies saddled with large debts began to downsize; the region was experiencing a net outflow of foreign funds. All these factors had created a sense of uncertainty in the polity used to almost three decades of positive growth and rising standards of living.

In attributing the economic slide to money market speculators, the Mahathir administration sought to interpret it as part of the machinations of the latter's interlocutors in the west. No explanation was given as to why, apart from that the west was envious of the country's progress and ambitions. In such a scenario, it was but a short step for the authorities to view Singapore's relocation of its customs and immigration facilities to Woodlands with disdain. Once again patriotism was whipped and Singapore seen as being insensitive and disrespectful of Malaysia's interest.[1] In the ensuing standoff both Singapore and Malaysia were intransigent with the former sticking with its decision to go ahead with the relocation in May and the Malaysians standing firm in not moving from Tanjong Pagar. That the authorities in both countries could feel that the other was being unreasonable has roots deeper than the crisis. Singapore depends on Malaysia for much of its fresh water supply with obvious implications for the need to maintain cordial relations. But at the same time it is this dependence which it sees as reason for Malaysia's intransigence and foot-dragging on issues which it feels are pertinent. For Malaysia, Singapore is seen as an exploiter and one who has gained far more economically at Malaysia's expense and it is in this light that its plan to relocate the CIQ facilities to Woodlands is viewed. In a scenario where both countries are facing significant economic challenges the hardline position adopted by the authorities on both sides of the causeway did much to divert attention on the pressures exerted on the governments by international finance institutions and organisations. Of late governments in the region have come to face pressure for greater transparency and democracy in administration as the key to emerging out of the present crisis. The patriotism engendered by the contention in Malaysia-Singapore relations did much in helping the authorities package themselves as defenders of national pride and interests.

This notwithstanding the crisis had important long-term implications for regional co-operation. In bringing to the forefront once again the issue of exploitation, the Malaysian authorities have begun to campaign assiduously among importers and exporters to divert trade from Singapore to Port Klang and have it transformed into the regional shipping hub. The implications of this for Singapore

which has traditionally played the role as the region's shipping hub while obvious too means that rather than enhancing regional co-operation and capitalising on comparative advantage there will be increased duplication with implications for the allocation of scarce resources.

Another measure adopted by the Malaysian authorities was designed to undermine Singapore's position as the regional financial centre. To this end policy was formulated to end trading in selected blue chip shares of Malaysian companies and repatriate the stocks of Malaysian ringgit deposited in Singapore banks and financial institutions by making the ringgit not tradable overseas and stocks of the currency kept overseas worthless paper. Both measures were rationalised as helping to provide the much needed capital by increasing deposits in Malaysian banks following the return of capital as well as to shore up the Kuala Lumpur Stock Exchange. Released at the same time was former prime minister Lee Kwan Yew's long awaited memoirs. Although the Singapore authorities had alluded to it as personal and not an official document, its reference to communalism and racism on the part of political leaders in Malaya and the release of the book at such a time no doubt would have appeared more than a coincidence to say the least.

As expected, this set the next stage in the contention with the announcement by the Malaysian ministry of defence on the subject of Singapore military aircraft straying and trespassing into Malaysia's airspace. (Incidentally among the personalities Lee had taken a swipe at in his memoirs was the father of the present minister of defence of Malaysia.) In view of the proximity between Singapore and Malaysia, planes of the Singapore Air Force have had a tendency to stray into Malaysian airspace quite often without securing prior official permission. In view of Malaysia and Singapore together with New Zealand, Australia and the UK being members of the Five-Power Defence Agreement (FPDA) such incursions used to be tolerated. Henceforth, however, no such incursions would be acceptable without official sanction.

While these economic and political measures were set afoot, things were coming to a head in Malaysia following the sacking of Anwar Ibrahim, Mahathir's heir apparent, from the cabinet as deputy prime minister and minister of finance and as deputy president of the United Malays National Organisation (UMNO).[2] This charismatic leader had attracted a large following and his summary sacking drew large demonstrations in Kuala Lumpur. Arguably, the Mahathir administration was now facing its greatest challenge. More important was its potentially divisive effect on the mass of Malay supporters in the country from whom UMNO draws its electoral base.

The source of the problem between Mahathir and Anwar can be traced to differences on how to handle the economy. Among the charges levelled against Anwar was treason, implying he had co-operated with an external power to undermine the country and its administration. To be sure there were policy differences between Mahathir and his deputy on the subject of the 'right' economic policy to deal with the crisis. Anwar's position was closer to that of the IMF which advocated a regime of tight monetary policies, the effect of which was felt by middle and lower income groups who now had to deal with higher interests on loans as well rising cost of living; and by businesses under the control of sections of the nascent national bourgeoisie[3] which was spawned through government policy introduced in 1970. Mahathir on the other hand came to see in the IMF's strategy a recipe for disaster (the reference to the IMF as the 'kiss of death' by the Cuban leader Fidel Castro comes to mind). Accordingly he favoured a more relaxed monetary policy, that is, the easy availability of credit as the best guarantee of taking the country out of recession, and the need to come to the assistance of the Malaysian 'zaibatsu' under the control of the national bourgeoisie as 24 per cent of their profits were channelled to the national coffers through taxes. The fact that Anwar was chairman of the IMF's Committee on Development could explain the relationship between his economic policies and those of the Fund. But to infer from this that he was co-operating with foreign powers was quite a big step hence it was not with treason that he was formally charged, but with sexual offences.

The once militant firebrand who was seen as leading Malaysia into the 21st century is accused of being a bisexual who engaged in extramarital sex and had used his position to enlist the co-operation of the police in extracting statements from his partners denying them – an offence which carries the charge of corruption. With Anwar out of the way and Mahathir assuming the finance portfolio a more relaxed Keynesian type economic policy minus the social welfare dimension has been introduced.

This seemingly internal political development was to have important ramifications for Singapore which prior to the Malaysian political crisis had stated its intention to bring Malaysia's trade policies, such as those mentioned above, before the World Trade Organisation. Reeling under the possibility of a fresh round of retaliatory measures from Malaysia following the live interview carried by CNBC in Singapore with members of Anwar's family, Singapore authorities extended their co-operation to police officers from Malaysia who had gone to the republic to question CNBC and promised to assist in gagging the media based there. But, as mentioned earlier, its apparent non-interference approach is for all intents and purposes a support for the Mahathir administration and this appears to place Malaysia-Singapore relations on a more amicable footing. Yet the fact that the concept of non-involvement is double-edged cannot be denied and will therefore continue to underlie the dialectics of ASEAN co-operation.[4] It is time that ASEAN realises that the best guarantee to prosperity lies in greater regional economic co-operation and removing unnecessary competition among member states and this entails proactive involvement in their national interests. The economic crisis affecting the region has not only entered the door of politics of south-east Asia but is also begun pressing for a change in ASEAN co-operation.

Notes

1 Indonesia too shares a similar view with Malaysia which can be seen in the Indonesian president Jusuf Habibie's comment that Singapore "is not a friend in need" See *Asian Wall Street Journal*, August 1998.

2 In Malaysia's communal political set-up, UMNO is the leading member of the ruling Barisan Nasional (National Front) coalition of 14 political parties. The leader of UMNO is the chairman of Barisan Nasional and holds the post of prime minister For a discussion of politics in UMNO, see A B Shamsul, 'Battle Royale: The UMNO Elections of 1987', *Southeast Asian Affairs*, Singapore: Institute of Southeast Asian Studies, 1988; Fan Yew Teng, *The UMNO Drama: Power Struggles in Malaysia*, Kuala Lumpur: Egret Publications, 1989; Vejai Balasubramaniam, 'Vote for Unity: Malaysia's Ninth General Election', *Economic and Political Weekly*, June 10, 1995

3 For a discussion on aspects of the role of government in creating the national bourgeoisie written from the standpoint of rent capitalism, see Gomez and Jomo, *Malaysia's Political Economy: Politics, Patronage and Profits*, Cambridge University Press, Cambridge, 1997.

4 Indonesian president Jusuf Habibie expressed his hesitation to attend the APEC summit in Kuala Lumpur on November 16, 1998. Habibie and Anwar are known to be close allies While this would indicate the emergence of a contention in Malaysia-Indonesia relations, the Malaysian authorities, however, had issued a statement denying any such possibility for concern of embarrassment in the event Habibie did not attend the summit.

Making Sense of Conflict

Rowena Robinson

Social Conflict edited by N Jayaram and Satish Saberwal; Oxford University Press, Delhi, 1996; pp 563, Rs 645.

SOCIAL CONFLICT edited by Jayaram and Saberwal is a welcome addition to the series, Oxford in India Readings in Sociology and Social Anthropology, whose general editor is T N Madan. Jayaram and Saberwal remind us in their introduction that sociology must confront conflict. For a long time the perspective on conflict in the social sciences tended to have very little realism about it. The early preoccupation with order in the social sciences tended to locate conflict negatively, as being incompatible with structure, temporary and aberrant. However, conflict clearly needs to be recognised and grappled with empirically and theoretically. Discourses on modernity also tended to see conflict – particularly communal or ethnic conflict – as being a thing of the past, something that would disappear with time and 'development' or get reconfigured in 'class' terms. No such thing happened, of course, and social scientists soon had to confront and explain the occurrence of communal and ethnic conflict in modern times. Indeed, conflict can become an entry point through which the nature of contemporary society may be understood. This book draws on work in anthropology, sociology, history, political science and psychoanalysis. Most of its papers are published pieces, but there are new articles by Bjorn Alm and Saurabh Debe.

In India, we see the clash of cultural codes and countless dislocations attending industrialisation and urban growth, colonialism and the clash of western and Indian codes. Uneven development has led to the frustration of aspirations and sometimes stirred them beyond the limits of the feasible. Ideologies of protest and revolt, of everyday resistance, feed into the study of conflict. In the book, the different structural domains – of work, politics, family and culture – are viewed as each generating its own set of conflicts. Interpersonal and inter- and intra-group conflicts are represented and there is a section on conflict resolution.

This book is far too wide-ranging to permit here a detailed description and analysis of each of its 26 essays. I will present my comments sectionwise, probing deeper into specific issues and essays occasionally. The book is divided into five sections: family, political conflict, work, culture and conflict resolution. One must consider this a fairly provisional kind of division for Jayaram and Saberwal are certainly not suggesting that 'conflict resolution' is a separate domain altogether from the spheres of work, culture, politics or the family. Nevertheless, it is also obviously possible to empirically distinguish and appropriate to analytically focus on the strategies and modes of resolving conflict and also view the shifts and changes in these.

The book brings together old and more recent pieces. There is T N Madan's work on the family dating back to 1965, Charles Morrison's 1968-69 publication on lawyers, Galanter's 1972 essay on indigenous law and Jeffrey's 1976 work on the nayars of Kerala along with papers and excerpts from the 1990s. I am a little surprised, however, that the editors found nothing for the entire period of the 1950s and half of the 1960s to reproduce here. Feuds, factions and caste conflicts preoccupied many early writers including Bailey, S C Dube, Srinivas, Beals and others. Perhaps such pieces were not included because the editors felt they were easily accessible elsewhere. Still, a sense of the past of the study of this subject needed to be inculcated by showing early concerns, some of which, indeed, have now retreated from contemporary practitioners' minds, but certainly merit greater attention. This is even more true for a series that seeks to 'introduce th subject to the interested reader' and t capture 'diversities of approach'.

The first section on the sphere of th family contains five essays including a excerpt from Madan's classic study of th Kashmiri pandits. The partition of th patrilineal, joint household forms the foca point of Madan's and Rizvi's papers, whil Jeffrey looks at the disintegration of th 'taravad' among the matrilineal nayars Ramu's paper raises interesting question regarding marital interaction and day t day relations in urban, single and dua earner, middle class nuclear families. Th modern urban family is still an under researched area in the discipline and ther is much we need to know regarding th kind of role transformations an negotiations that take place in suc households.

Chandra's interesting paper on the nov famous Rakhmabai case suffers from som of the ill-effects of elision, which most o the other papers also necessarily bea Extraction for the sake of brevity, in thi instance, has meant that the paper does no explain why this case came up before th courts at all. Rakhmabai, against whon her husband Dadaji brought a case fo restitution of conjugal rights, belonged t the pachkalshi caste. In a case like this the caste 'panchayat', had Dadaji appeale to it, could have ordered Rakhmabai t join him or pay a fine. The husband woul thus have got compensation and th marriage would have been dissolve according to caste norms. However, Dadaj did not choose this option. He took direc recourse to the English legal system in th hope, probably, of obtaining Rakhmabai' property, which the caste panchayat woul not have given him but the British court

might have. Thus customary law and usage came up in conflict against British interpretations and legal principles.

The section on the cultural sphere has seven articles, ranging in theme from caste to labour and communal conflicts. The papers range historically from the late 19th century to the present and attempt to reflect the variety of approaches used to study violence from the psychoanalytical (Kakar) to the detailed empirical and micro-analytical (Phadnis, Alm) to the symbolic and discursive (Das, Dirks). The relationship between ritual and resistance is explored in Dirks' article on the subject which queries the axiom that ritual is solely patterned activity, a mechanism for the production of social order. He argues that rituals provide a means for the articulation of community rank and power and they often occasion more conflict than harmony or consensus.

Veena Das' essay actually connects up with her work on the cultural rights of communities, which she has articulated elsewhere and which could have been a beneficial addition to this volume. It is important because it focuses on one of the most critical areas of recent political mobilisation in India. In the paper included in the book, Das analyses Sikh militant discourse and the ways in which it defines self and others, both Hindus and the state. The paper, however, is linked with larger concerns, which are worth recording here. The question of cultural rights, as Das argues, brings up issues of contestation and conflict not only between the state and community, but also between communities and between the individual and the community. Law and history are experimented with in the attempts made by communities to shape their identities in relation to each other in the contemporary political culture. Das articulates another need: for communities to become a vitalising force in shaping the public culture by refraining from the attempt to establish complete and hegemonic control over their members thus permitting the resistance and experiments which could create new forms and which are the *sine qua non* of human freedom.

The sections on the political sphere and work sphere are a chronicle of the varieties of conflicts pre- and post-independence India. Industrial and agrarian tensions are focused on (Ramaswamy and van Wersch, Beteille and Oommen). Agrarian social structure and change still remains a generally under-exposed area in the discipline. It is good to have Beteille's seminal work represented here and Oommen's skillfully researched paper. It is a pity, though, that we have no reproduction from Chakravarti's pioneering work on the changing character of elites and the nature of confrontations such shifts in power given rise to in the agrarian set-up.

The chronicle of conflict charts the changing political history of India, the shifts in sources and bases of power, the nature of political elites, contestation among those elites for the control of vital political resources and the relationship between local, regional and national, micro- and macro-level political arenas. The analysis of the dynamics of conflicts intersects with an attempt to understand its translation into the lives of people – the experiential level of conflict for those involved (Kakar and Chowdhry). Caste, class and party all get charted in this section on political conflict.

The final section is on conflict resolution and perhaps the most exciting section of the book in terms of prospects for further research. As the editors rightly point out in their introduction to the section, "while we have excellent anthropological reports on indigenous modes of resolving conflicts, comparable accounts of how modern courts handle disputes are hard to find".

The argument regarding the alien character of western legal institutions has often been made (Cohn). What some of the paper show, however, is not only the sheer tenacity of the western complex and the way it has survived, indeed even thrived, in India but also the ways in which western legal forms have lost their foreignness and become utterly and inextricably domesticated (Morrison, Kidden). Dube looks at the ways in which disputes get refashioned as they move through the judicial process from the moment of their inception in familiar areas of village life, kinship, neighbourhood and affinal connections. The paper, which looks at two disputes from Chhattisgarh of the 1920s and 1930s, uses the disputes to enter into the play of village relationships. Exploring the gap between the laconic language of the judgment and the rich texture of the witnesses' depositions permits entry into the patterns of relationships, of fellowship and enmity, of the variability of everyday village life. Another interesting paper (Morrison) is on the social origin of the professional group of lawyers. The paper analyses the court structure as a social space. It looks not at disputes but the entire system of social relations and forms of interaction that arise among professional lawyers in district courts. All in all, this is a good book. A little expensive perhaps, though don't let that put you off Certainly, every social science library should have it.

Small Capitalists and Entrepreneurs

K V Ramaswamy

Small Business Entrepreneurs in Asia and Europe: Towards a Comparative Perspective edited by Mario Ruttan and Carol Upadhya; Sage Publications, New Delhi, 1997; pp 334, Rs 395.

THIS is a book about small capitalist entrepreneurs in selected countries of Asia and Europe. It brings together studies carried out in six Asian countries, namely, India, Thailand, Malaysia, Indonesia, South Korea and China. This set of studies is followed by a section containing three papers which discusses entrepreneurial behaviour in the Netherlands during the 17th and the 18th centuries and in contemporary Italy. They provide a summary of the nature of small entrepreneurs in Europe. The three stated objectives of this book are: (1) to study the role of new emerging business groups operating in provincial and rural areas; (2) to provide a different perspective on the nature of capitalist development in Asia today; and (3) to contribute to the process of developing a common theoretical framework that will facilitate objective comparative studies in future. The editors bring out the necessary elements of such a framework in the introductory survey. On the basis of this survey editors favour an approach which integrates political and economic structures and an understanding of cultural context with a human agency. Such a model should enable individual action (the innovating, risk-taking entrepreneur) to be related to the macro-economic processes that constitute development.

Upadhya (Chapter 2) traces the emergence of the caste group kammas as a prominent regional capitalist class in coastal Andhra Pradesh. Kammas are found to enter 'modern' businesses such as industry and construction. The retail and wholesale trade remains in the control of traditional old business communities (example, komatis). Caste, it is argued, is a major means of consolidating class positions. Caste-based networks are instrumental in ensuring business success. Business associations play an important role in networking strategies of entrepreneurs. Political struggle to control one such association (Vapi Industrial Area) is described by Gorter (Chapter 3). Here,

technocrat first generation entrepreneurs attempt a formalisation of access to government superseding contact through friends, caste fellows and corruption. Through their political contacts they can control labour problems better, get generous subsidy schemes approved, and construct a common effluent treatment plant to reduce pollution. The holding of political office in Thailand (Chapter 4) gave brickyard owners access to local labour which was in short supply. They are disproportionately successful in obtaining funds from the provincial administration to develop infrastructure in their district. The need to nurture and develop political contact is greater in the context of local nationalism as in the case of Chinese businessmen in Malaysia (Chapter 5). Iron founders in central Java (Chapter 6) have used the control of co-operative societies to improve their economic returns. The rapid growth of private entrepreneurs in China under the liberalised regime is fostered by kinship ties and those of connections with officials (Chapter 8). In a sample of 1,440 enterprises more than 37 per cent of the owners' closest relatives and 42 per cent of their friends are found to be officials. Access to information regarding policy changes is better for those with official connections. In brief, networks are found to be crucial for the functioning of small businessmen whatever be the basis for building up network (caste, clan, kin, and ethnicity). The objective for its use is shown to be similar across the selected countries. Networks may be viewed, following Bourdieu's theory, as social capital, which people mobilise through their social relations. The success of industrial districts in Italy (Chapter 10) is closely connected to the use of networks, which promotes collective efficiency.

What have we learnt about the entrepreneur and the craft called entrepreneurship in rural areas in these selected countries? Can we regard caste-based networking and agricultural surplus as sufficient conditions for the emergence of small capitalist class? Personal trust based on caste as in Indian networks is exclusive. This can block collaborative relationships across communities as in Agra footwear industry (*Economics of Collaboration: Indian Shoe Makers in Between Market and Hierarchy* by Peter Knorringa, Sage Publications, New Delhi, 1996). What factors help or hinder entrepreneurial activity in a situation of rapid localised agricultural growth? The selected countries differ widely with respect to state policies. How do different social systems create an enabling environment for small business in rural and urban areas? Differences between economic systems are more appealing than similarities. Contrast the reported lack of interest in political activity, absence of business diversification trend and partnership among producers in Punggi (South Korea) textile industry with that of industrialists in Indian industrial estates. What explains such differences? These questions are not adequately answered in the book.

Of the three stated objectives, the first objective is apparently met as the case study approach leads to description of the local processes at work in detail. Is network logic different between or common to countries and cultures? Do they (different bases of networking) lead to different outcomes in terms of performance. Editors cite a paper by Biggart (page 31) but none of the contributors mentions this work. Large firms dominate industrial structure more in Korea than in other countries. Foreign firms are prominent in Malaysia not so in India. Presumably, different ownership and size structures – important elements of economic structure – will have differential impact on the formation and efficacy of small business class. How and why? These questions are not posed in this set of studies.

The outline of an alternative perspective on the nature of capitalist development in Asia remains unclear. Any attempt to formulate an integrated framework needs to be preceded by a discussion of definitional issues. Can we regard an iron founder in Java or brickmaker in Thailand as an innovative and risk-taking entrepreneur, affecting and affected by social and technological change in a rapidly industrialising society? The term entrepreneur in the case studies seems to be loosely used to refer to the owner of a small-scale but growing and successful business or to a self-employed person. We may note that neither of them necessarily involves in any innovative activity.

The usefulness of this book lies in focusing attention on the small entrepreneur. In the decade of structural adjustment small business is likely to be subject to various external shocks. In Thailand brick producers are threatened by the entry of large-scale export oriented enterprises (page 140). How the small capitalists as a class respond to this change is an important subject for study. The role of different institutions, cultures and economic policies in easing the possible negative impact is not well understood. The importance of networks for small entrepreneur development, as described in this book, can be factored into development policy.

Hedge Fund Terrorism and Regulatory Inertia

D N Ghosh

In the international financial system, following rapid consolidation and institutional changes, we are witnessing the highly concentrated power of a progressively smaller number of market participants. This has made the financial system a perennial breeder of systemic risks.

THE spectacular bail-out of the Long-Term Capital Management hedge fund set off more ripples than the debacle itself. Orchestrated by the Federal Reserve this late night rescue has embarrassed all those who are busy preaching the doctrine of market discipline the world over. James Leach, chairman of the US Congress house committee, saw in this rescue action a loss of the moral authority of the US and observed during the course of evidence-taking of Federal Reserve chairman: "The Fed's intervention comes at a time when our government has been preaching to foreign governments, especially Asian ones, that the way to modernise is to let weak institutions fail and rely on market mechanisms rather than insider bail-outs. The long-term benefit to the market would perhaps have been greater and more lasting than any temporary disruption to the US economy." However, more than the moral hazard issues, it is the nature of operations of the hedge funds and their interface with the regulatory authorities that are uppermost in the minds of those concerned with the stability of the international financial system.

Hedge fund operators are the cream of Wall Street investment bankers, a class of financial elite *par excellence*. They are limited partnerships, free from any regulatory restrictions normally applicable to traditional mutual funds. The hedge funds can buy stock.., bonds, commodities (such as gold and oil) and international currencies, can invest in futures and options, putting up a small portion of the securities' value in order to buy or sell. They are free to borrow to invest. Their strategy is to notice and exploit small yield and price discrepancies in bonds and currencies with programmed buying and selling based on certain assumptions about the future. There are various estimates of their numbers and resources; they range up to $400 billion comprising some 4,000-5,000 unregulated hedge funds. Arguably the size is not large in relation to resource flows in the financial markets, but then size has to be seen in some perspective. Viewed in relation to their exposure in the emerging markets, this is more than the World Bank estimate of the outstanding bond market debt of the developing markets. This is also more than double of the combined equity market capitalisation of Thailand, South Korea and Indonesia at the start of the Asian crisis in June 1997. In Thailand alone a single hedge fund had reportedly taken an exposure of about 20 per cent of the country's official reserves. All these figures are without taking leverage support provided by banks and investment institutions.

All hedge funds cannot be painted with a single brush. There are a large number of low-risk-low-leverage funds which advertise themselves as market-neutral. A good number of funds which dominate the market are no ordinary players; they are the Machiavellies in the financial game strategies of today, taking advantage of arbitrage opportunities across a wide array of market instruments all over the globe wherever these exist and creating such opportunities wherever possible, not hesitating to act in concert to see that their speculative bids succeed. Either singly, if it is a large fund, or by the pooling of resources of several small funds, they can play about with the economies of small and medium countries, bringing them to the brink of bankruptcy. Hedge funds came to widespread public attention when George Soros, the guru of hedge funds, sold an estimated 10 billion pounds short in 1992 and netted a profit of 2 billion pounds. His fund as well other funds had been betting heavily in the bond and currency markets. Some of the consequences are history now.

The moves of hedge funds are closely guarded secrets. This secrecy is their stock-in-trade. They set their own rules of the game and behavioural transparency. Issues of morality crop up in the execution of their business strategies. This psychology is captured pithily in a recent interview given by George Soros: "There are collective interests that don't find expression in market values. These collective decisions and even individual decisions must involve the question of right and wrong. I think markets are amoral, but moral values are necessary to prevent their excesses and inequities." Elaborating further on the way he conducts his own business in the competitive market, he clarifies: "Because I consider the market amoral, I am concerned as a businessman with being a successful competitor in these markets. At the same time, I recognise that I am also a human being and as a member of society must be concerned with moral issues. But if I allowed moral considerations to influence my investment decisions, it would render me an unsuccessful competitor. And it would not in any way influence the outcome because there would be someone else to take my place at only a marginally different price." (Interview of George Soros with Jeff Madrick in 'Behind the Financial Crisis', *New York Review of Books*, January 14, 1999.)

The regulators in the US virtually kept their hands off, relying, so it seemed, on the reputation of the fund managers as proxy for their own surveillance. The fund managers have been enjoying unrestrained freedom of operation. Information available with different regulators, as it now comes out, was far too inadequate for the kind of surveillance needed for overseeing the impact and consequences of their decisions on the stability of the financial markets. The debacle set off a wake-up call for the regulating community. The observations made by the regulators are revealing. It appears that there was no filing requirement for the hedge funds to report the extent of their borrowing with the Securities Exchange Commission. The Federal Deposit Insurance Corporation made an Indirect admission that it had not been reviewing commercial banks' hedge fund positions. The Commodity Futures Trading Commission admitted that the reporting on borrowing against swaps was inadequate and had serious loopholes. Currently, the US regulators have started investigating the transactions of hedge funds with several large Wall Street bankers in early 1998. In an ironical twist some of the hedge fund managers are now shifting the blame to them for being generous with their leverage support. The use of leverage has been an accepted market practice, notwithstanding its highly destabilising risk implications. The world now knows that Merril Lynch, J P Morgan, Goldman Sachs and Travellers Group, the elite of the America's financial powerhouses, a few dozen other global heavyweights and an array of state entities called strategic investors were part of the game; they either did not know what risks they were taking or were comfortable with the high-risk activities. Indeed in hindsight it does stand out as an extraordinary combination of myopic decision-making by the lending

institutions and open-ended forbearance by regulatory authorities.

The earnings of hedge funds, at least in many cases, were between 35 and 40 per cent; the market knows how that sort of money could be earned only by leverage; and the Federal Reserve (FED) would have to do a lot of persuasive explaining to convince the market why it could not have opted for pre-emptive inspection and instilled sanity in those banks and institutions which were on a dizzy spree of imprudent lending. FED could not but have been aware, even during the last four and five years when things were looking rosy that the collapse of even a medium sized hedge fund can pose a threat to the stability of the world's biggest economy. Were they in the dark? If so, it is a terribly worrying thought.

Perhaps it is some consolation that the FED chairman admitted that there was a regulatory failure. He told a Congressional hearing that the hedge funds are not "technically regulated in the sense that banks are regulated but they are under a fairly significant degree of surveillance". He was reluctant to use the sledge hammer; that would be inconsistent with the commitment to preserve and nourish the creativity of the free market mechanism. He advised caution against rushing into a regime of direct control on the basis of one incident. In testifying before the House Banking Committee, the FED chairman as well the organisations which track the operations and performance of hedge funds expressed the apprehension that detailed regulation and control would drive the hedge funds offshore outside the US jurisdiction. Clearly FED would not ignore the lesson of the late 1960s, – the adverse consequences of the interest equalisation tax which created the giant euro dollar market and virtually took the market away from Wall Street. With tighter scrutiny and control over hedge funds there could be shifts of multi-trillion dollar hedge funds and derivatives business to accommodating offshore centres. At a time when a large pool of surplus funds is waiting to be profitably invested and the increase in risk appetite from a large community of high net worth individuals is driving the market towards high-risk financial lending, the FED could not but take cognisance of the vital interests of the Wall Street investing community.

The FED's attitude is no consolation to regulators in small and medium countries. They are perplexed as to how they can contain and neutralise the decisions of international fund managers who come under the jurisdiction of the Federal Reserve as it seems unwilling to accept its responsibility of taking care of their concerns as well. Will FED move to contain the forces in their own countries which have the potentialities of acting as great destabilisers of the international financial system? This seems highly unlikely. Throughout the Asian crisis the western policy establishment had been playing down the role of the hedge funds. They put the blame on the countries themselves;

they are victims of their own folly, they chose to be the targets: a faltering economy, a banking system riddled with bad debts, fiscal irresponsibility and low order of reserves. The high levels of dollar debt in the corporate balance-sheets of three Asian countries and, in the case of Russia, the fall in oil prices and the failure to collect taxes were clearly indicative of vulnerability. Naturally, therefore, speculators succeed, so runs the argument, only when they see opportunities in policy weaknesses and ways to contain the 'ferocious beasts', as Mahatir calls these hedge fund operators, have to be found by the victim countries themselves; they have to correct their own policy weaknesses. True, the hedge fund managers or the investment bankers were not responsible for creating conditions which made the countries their targets and if the countries had the foresight and courage to set right their fundamental macroeconomic deficiencies, they could have avoided their evil eyes.

While some of the deficiencies in these countries are of their own making, it needs to be recognised at the same time that in a world economy moving towards more openness and integration, they need the support of a stable environment; they see how fragile this stability is and how defenceless they could be against attack form even a single hedge fund. It is this sense of insecurity which forced Malaysia to impose capital controls. In Hong Kong the attack was mounted by hedge funds borrowing shares and selling them on the assumption that prices would fall before they were returned and then engineering a fall in share prices by selling Hong Kong dollars which under the currency board system produces an automatic rise in interest rates. The Hong Kong Monetary Authority decided to counter the speculation against the currency peg by purchasing as estimated \$ 15 billion of shares on the Hong Kong stock market. In the process the government has saddled itself with shareholding of about 7 to 11 per cent of several key Hong Kong companies in telecom, information technology and airlines. The considerations that weighed with it have been transparently explained by the Hong Kong Monetary Authority. "The aim of the intervention is not to prop up the stock and futures markets. Our action is targeted at currency manipulation that took advantage of the automatic adjustment mechanism of our currency board system to produce extreme conditions in the interbank market and high interest rates, in order to profit from a short position in stock index futures. We wish to send the very clear message to those manipulating our currency for this purpose that they may stand lose money instead. But if there were no currency manipulation, there would be no such intervention." (Joseph Yam, chief executive of the Hong Kong Monetary Authority in his statement 'Why We Intervened', *Asian Wall Street Journal*, August 20, 1998.) Malaysia's imposition of capital controls and Hong Kong's intervention have worries for the international investing community; they apprehend that many developing countries may be driven to a withdrawal syndrome. Hong Kong could ward off the threat because it was an exceptionally strong position to do so; it is not a precedent which others can follow.

Currently, after the LTCM debacle, hedge fund operators are on the defensive. They are not as strident now in their blame-the-victim approach and are searching for ways not only to protect their turf but to bounce back. In a bizarre twist, George Soros argues that "the pain at the periphery has become so intense that individual countries have begun to opt out of the global capitalist system and with the inability of the global monetary authorities to hold it together, the world capitalist system would tend to disintegrate. The prospects are dim because the G-7 countries have just failed to intervene in Russia, but the consequences of that fall out may serve as a wake up call. There is an urgent need to recognise that financial markets, far from tending towards equilibrium, are inherently unstable. A boom-bust sequence can easily spiral out of control, knocking over one economy after another. Thus in finding a remedy, 'market discipline' may not be enough. There is also a need to maintain stability in the financial market." ('The Crisis of World Capitalism', *Asian Wall Street Journal*, September 16, 1998. Soros makes the same argument in his book published in December 1998.) His reform agenda is for a kind of International Credit Insurance Corporation to guarantee loans made to periphery countries. (His proposal, made in August 1998 to forestall the Russian meltdown, for an aid package of \$ 15 billion by G-7 and IMF did not find favour; his own hedge fund lost money in the Russian crisis.) The new proposal is to protect investors against losses without interfering with movement of capital flows and to help preserve freedom in capital market operations. In a recent article in *The Financial Times* (January 1, 1999) Soros has mooted yet another proposal: transform the IMF to act as an international central bank and as the lender of the last resort. In essence the institutional arrangements proposed are intended to secure protective cover for imprudent lenders and monetary accommodation for reckless speculative operators, to save them from the consequences of their own folly; they skirt around the basic issue of regulating and controlling the operations of hedge funds and high-risk financial trading operations.

In the international financial system, following rapid consolidation and institutional changes, we are witnessing the highly concentrated power of a progressively smaller number of market participants. Driven to make profit in a short-term time horizon, they play about with massive leveraged finance, building up complex trading relationships all over the globe for all kinds of products, commodities and services, taking trading positions at a moment's notice and unwinding them with no less alacrity. All these have made the financial system a perennial breeder of systemic risks. There is little evidence that political leaders of the western nations, in G-7 and other international gatherings, are coming to grips with the impact and consequences of the transformation of the nature and character of the forces driving global finance. The emperors and high priests of finance of today are talking of sophisticated bail-out mechanisms, perhaps stronger life-boats, a little more spacious, a little more accommodating to the periphery countries, launched with more cleverness and finesse. But all that would leave untouched the core issue. As the sources of instability are imbedded in the way in which the managers of hedge funds and allied investment bankers manage their global finance portfolios, the key industrial nations have to address this issue if they wish to preserve the spirit of enterprise and freedom and an internationally open economy.

G-7's call for greater information sharing, transparency and harmonisation of some supervisory practices would not remove the sources of instability in the creditor and debtor countries and assure a safe and sound global financial system. The debtor nations have to be effectively brought into the discussions. As Jeffry Sachs argues in an article in *The Financial Times* (November 5, 1998), "G-7 declaration for all its advances still reflects a haughty disregard for the rest of the world. They are called upon to support the G-7 declaration, not to meet for joint problem-solving. That summit should be a dialogue for the rich and poor together, not just a community of the rich pretending to speak for the world. "Even with the best of leaderships, however, international monetary reform would be a slow process of analysis, evolution and consensus-building. There are entrenched structural problems and a brand new architecture of international reform is nowhere in sight. The most we can hope for is to recognise the urgent need to contain and regulate the predatory activities of financial buccaneers in the Wall Street marketplace. That would be some contribution towards restoring some semblance of sanity in the financial markets. The new barbarians have crossed the gate and are inside the arena. Will Wall Street and their regulators succeed in disciplining them?

The Indian Econometric Society

Announcement

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Financial Programming and Stabilisation Policy Options for Macro-Economic Adjustment

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The paper initially discusses the real and monetary aspects of short-run structural adjustment using a flow-of-funds methodology. Based upon such a framework, it then specifies an analytical basis which is capable of integrating the financial programming model of the Fund with the financial requirements approach of the Bank in a manner which removes the existing dichotomies between the real and financial sectors of the economy. The merged model, which defines monetary, external, real and financial sector equilibrium, is then used to prescribe feasible stabilisation policy options for the Indian economy over the current fiscal year.

I
Interest in Structural Adjustment Programmes

THERE are several reasons for the current interest in macro-economic adjustment throughout the developing world. Macro-economic adjustment, which broadly comprises stabilisation and structural reform policies, is required whenever imbalances persist between aggregate domestic demand and aggregate domestic supply. This imbalance could be generated by exogenous shocks, such as economic sanctions or natural events. Disequilibria could also be generated due to distortions on account of unsustainable domestic policies However, as long as foreign resources are available, such a situation of excess demand can be sustained, albeit at severe economic costs, such as rising external debt, high inflation and stagnant growth. Eventually, however macro-economic adjustment, in terms of reducing absorption as well as improving the balance of payments (BOP) situation, would be needed in order to rectify the deteriorating situation.

However, reaching a sustainable BOP and simultaneously achieving high growth is proving to be more difficult than previously anticipated. Even in the once high performing east Asian economies, growth has been elusive despite implementation of moderate to intensive economic reforms. After over five years of 'shock therapy', several countries of eastern Europe, sub-Saharan Africa and Latin America have yet to show signs of satisfactory growth leading development economists to dub the 1980s as the 'lost decade'. Although, in response, adjustment programmes have widened their scope to include policy-based investment projects and sector adjustment programmes, Burki and Edwards (1996) note that what most countries essentially require are 'second generation reforms' aimed at modernising the state and reforming institutions, including moving towards independent central banks, the judiciary, regulatory bodies and budgetary processes. Some, if not most, of these aspects are part of the reform agenda of most developing countries.

Adjustment is thus now seen as an ongoing process with reforms impacting upon all aspects of economic life. Broader issues include not only sustainable development and poverty reduction but a major shift in the economic systems of the developing countries towards a market-friendly orientation. There is now a consensus that over-centralised planning and overt-protectionism are fundamentally wrong. While there has been no convergence of views on the efficacy of competitive markets in economic development, the debatable issues currently are not state versus market, or intervention versus laissez-faire, but the speed of reform, the complementarity between markets and governments and the appropriate transition to the correct macro-economic balance that would determine a less rocky road to reform and a more effective path of development.

II
Analytical Framework and the Use of Models

There are three reasons for specifying the analytical framework used in reform efforts. First, policy makers need to understand the main relationships between instruments and targets so as to make judgments as to where and how fast the economy is likely to move in the short to medium term. Second, models ensure the consistency of policy measures and provide a framework by means of which trade-offs can be coherently discussed. Third, there is a certain symbiosis between models and policy-making: in effect, the specification of models depends upon the policy-makers' statement of economic problems, preferences and priorities; and, in turn, policy-makers depend upon models to provide information regarding future scenarios. Thus, in the formulation of any structural adjustment programme, political processes and technical analysis are closely related, and to the extent that there is a certain amount of discipline involved in the overall design of an adjustment programme, economic policy-making generally draws upon economic models or frameworks implicitly or explicitly.

An integrated system of national accounts is necessary for the macro-economic appraisal of any economy. Such a framework of income and flow-of-funds accounts indicates the existence of various identities amongst the recorded magnitudes in the economy which can be useful in assessing the effects of policy changes. By themselves, however, these identities are an 'empty box' and need to be supplemented by relations that indicate the typical reactions of some of the variables included in the accounting framework to changes in other variables. These behavioral relationships can then be combined with the identities in order to form a schematic quantitative representation, or model, of economic processes involving the accounts, or variables, that define the economy in question. Such economic models provide the quantitative framework required for forecasting and policy prescription. They can be used in two distinct modes: first, the positive mode which assesses the consequences of assumed changes in the exogenous variables, determined independently of the processes illustrated in the model, and on the magnitudes of the endogenous variables which are determined within the model; and second, the programming mode which determines the changes in policy variables (instruments) required in order to achieve the desired changes in some of

the endogenous variables of the model considered to be the objectives (targets) of economic policy. Financial programming involves the use of models in this second mode because it attempts to determine the appropriate setting of the policy instruments against the backdrop of the economic situation and the desired outcomes.

However, it should be emphasised that economic models, being mathematical representations of economic theory, do not capture all the complexity of economic reality. They often possess the underpinnings of paradigms, which manifest themselves in differences in the underlying assumptions, specification of equations, direction of causality and manner in which the model is closed. While economic theory does provide guidelines as far as the first three aspects are concerned, there is nothing to fall back on as far as model closure, which is the specification of the binding constraint, is concerned except the features of the economy under consideration. For example, is the economy constrained by domestic savings, credit creation or availability of foreign exchange? Depending upon which constraint is binding, the model yields qualitatively different results. These pitfalls need to be fully grasped in the specification and design of any adjustment programme.

Objectives and Instruments

Not all structural adjustment programmes emphasise the same objectives although it is possible to discern a set of 'core objectives' including the achievement of external and internal balance as well as adequate economic growth. However, very often, the government pursues other objectives as well that may at times conflict. One well-known analysis [Musgrave 1959] classifies three functions of the government from an economic standpoint: in addition to the stabilisation function, there are also the functions of allocation and distribution. In such a context, the pursuit of allocational and distributional objectives may impede the adoption of stabilisation measures: for example, fiscal cuts may be postponed because the government is unwilling to reduce food subsidies reflecting its distributional priority; or it may be unwilling to eliminate credit controls reflecting its allocational priority.

Be that as it may, the problem of conflicting objectives is not confined only to the trade-offs that exist between the stabilisation, allocation and distribution objectives. For example, while it is accepted that price stability is a necessary condition for achieving adequate economic growth, in certain cases, the inflationary process seems to take a life of its own and it is very difficult, even with appropriate demand-management policies, to eliminate this 'inertial inflation' without inflicting a protracted period of stagnation upon the economy. In such a context, perhaps the greatest problem is forecasting the dynamics of policy efforts to reduce inflation. This is especially true of a gradualistic approach, where the results depend crucially on expectations generated by the credibility of government policies.

In most adjustment programmes, targets set for the objectives are open-ended, i e, they are regarded as floors or ceilings rather than as point targets, since it is perceived that there is no apparent cause for concern in over-performance. Nevertheless, this is not always true. For example, greater-than-targeted output growth, if not directed towards export orientation or import substitution, may conflict with the inflation target or result in a violation of the BOP constraint. Thus, once a targeted set of objectives has been achieved, it may be best to avoid over-performance, as there could be trade-offs amongst objectives. If, however, it is apparent that over-performance is inevitable, then it might be best to re-design the entire structural adjustment programme in order to align the revised targets appropriately.

In any model, intermediate targets link the ultimate objectives and the policy instruments. For example, the BOP could be an intermediate target linking reserve accumulation (ultimate objective) with the exchange rate (instrument). In some instances, these intermediate targets themselves are regarded as targets, and the ultimate objectives are not made explicit but are implied in the desired values of the intermediate targets. In such cases, a choice might need to be made between an intermediate target that is highly correlated with the ultimate target but bears little relationship with the policy instrument, and one which is strongly influenced by policy but has a weak association with the ultimate objective. Needless to say, the eventual choice of ultimate objectives, intermediate targets and policy instruments, apart from being constrained by the stage of development of economic institutions and the role of planning, would be largely dictated by the circumstances under which the adjustment programme is being formulated.

Considering the fact that the framework of most stabilisation and structural adjustment programmes is a blend of two extremely influential approaches to macroeconomic analysis, i e, the financial programming approach developed by the International Monetary Fund (IMF) and the financial requirements approach developed by the World Bank, it is essential to consider our analysis on broadly similar lines if one has to fully grasp the overall implications of any reform process. That money and monetary policy play key roles in determining BOP outcomes, and therefore clearly also in the design of adjustment programmes, does not necessarily make such adjustment programmes 'monetarist' in character. The concentration on monetary flows in such programmes can be justified on several grounds, ranging from the theoretical view that the BOP is essentially a monetary phenomenon to the more pragmatic reason that data on monetary variables contain important macroeconomic information and are relatively more accurate and timely than data on real variables.

By stressing on the theory underlying stabilisation policies, it is hoped that the paper will dispel the popular misconception that the approach to the design of structural adjustment is based on the particular view of the economy or, more importantly, on the convictions of any single school of thought. In this context, while most discussions on macro-economic stabilisation have assumed that fiscal austerity, competitive real exchange rates, sound financial markets and deregulation provide the conditions for a resumption of growth, Dornbusch (1981) has argued that there is a possibility of stabilisation resulting in stagnation because structural adjustment is only a necessary but not a sufficient condition for growth.

Needless to say, even if the current stabilisation policy that has been initiated in India does result in the resumption of growth, there is little assurance that such a resumption will not translate itself once more into rising current account deficits and the subsequent run on reserves as was witnessed during the late 1980s. These past trends in the Indian economy have raised several interesting, albeit unanswered, questions regarding the optimal mix of stabilisation policies that need to be pursued in order to avoid the possibility of such a recurrence.

As all these issues have not yet been fully recognised by orthodox economics, the paper discusses the real and monetary aspects of short-run structural adjustment using the flow-of-funds methodology. Based on such a framework, the paper sets out an analytical framework capable of integrating the financial programming model of the Fund with the two-gap model of the Bank in a more meaningful manner than has been hitherto attempted so as to remove

the existing dichotomies between the real and the financial sectors of the economy.

The policy issues, then, that will have to be studied within the Indian context need to be related to the following questions: (1) What are the essential steps to ensure monetary stabilisation? and (2) What policy co-ordination measures are necessary to ensure sustainable growth without rising inflation or increasing current account deficits? In such a context, any design of policy for the Indian economy will have to evaluate the following three elements in order to decide which of these are most likely to play a central role in the long-run success of a stabilisation effort measured in terms of a rapid smooth transition to growth. These are: (1) the desired levels of inflation and international reserves, (2) the optimal levels of domestic credit and the exchange rate, and (3) the appropriate levels of capital flows.

III
Elements of a Macro-Economic Accounting Framework

As mentioned earlier, this section initially discusses the elements of a macro-economic accounting framework. The framework is based on five accounts corresponding roughly to the macro-economic identities which link together: (1) the national accounts, (2) the government sector, (3) the non-financial private sector, (4) the balance of payments sector, and (5) the monetary system. These would be the minimum elements of a consistency framework.

The government sector includes all levels of government (central, state, district and local) as well as public corporations funded through the government budget. The non-government (private) sector is simply a grouping of households as well as the private corporate sector. Thus, it is an aggregation over all households, all non-government owned enterprises, self-employed people, etc. The monetary system identified in the consistency matrix includes the entire banking system (including the central bank) and other public savings institutions. These financial institutions play a key role as middlemen for transactions involving the acquisition of assets and liabilities. The central bank issues currencies and often holds the international reserves of a country, which are determined by its BOP situation. It is only because we are interested in the role of the monetary system as an intermediary for channeling savings from one group of transactors to another does such an aggregation become relevant. However, any study that, among other things, is concerned with how the activities of the central bank affect money supply through commercial banking regulations, such as cash-reserve ratios, statutory liquidity ratios, bank rates, and so on, would require further disaggregation.

The accounts can be presented in two ways. One can either present them as individual accounts or integrate them through a matrix of income, expenditure, saving, and asset and liability accumulation. Although the individual accounts give a comprehensive presentation of the flows in a consistent framework, it is helpful to integrate the accounts so that they are mutually consistent. For this, a useful device is a matrix of sources and uses for the four sectors plus the national accounts. The matrix can be seen as a combination of a flow-of-funds (FOF) matrix and a social accounting matrix (SAM). The FOF methodology emphasises the equality of sources and uses of funds, distinguished between the current and capital accounts, while the SAM approach presents the standard macro-economic identities (savings-investment and income-expenditure) in a form that shows the participation of each economic sector in the economy. The SAM was traditionally used for analysis of the real economy, as in general equilibrium models, and thus covered only real variables. However, it has recently been extended to cover real and financial interactions as well [Easterly 1989].

The matrix [Rao and Nallari 1996] has the advantage that it captures the essence of both the SAM and FOF approaches. The matrix, which is presented in Table 1, has the appealing feature that the row sums must be equal to the sum of the corresponding columns. This allows us to verify that the accounts are consistent. Like the SAM, it also presents the main macro-economic identities in a transparent way. Thus, the first row is the conventional GDP identity from the expenditure side, while the first column is the GDP identity from the income side. The tenth row and tenth column provides the savings-investment identity. As in the FOF approach, the matrix stresses the identity of sources and uses, distinguished between the current and capital accounts.

The upper left hand 5 x 5 corner of the matrix presents the current account transactions of each of the five sectors. The remainder of the matrix records the capital account transactions for each sector. The connecting link between the two is the saving of each sector, shown as a 5 x 5 matrix in the lower left-hand side of the overall matrix. Thus, the first part of the matrix records the identity of current sources and uses, where the latter includes savings. The second part of the matrix, i e, the lower half and the right half and their intersection, shows the financing identity of each sector, with their borrowing shown across the row and their asset accumulation down the column. This is the identity of capital sources and uses, with savings again as the balancing item.

Since the row sums must equal column sums in this matrix, this implies that investment plus financial asset accumulation must equal savings plus financial liability accumulation. This is another form of the familiar identity which states that saving minus investment equals *net* financial asset accumulation for each sector.

Current Account

Table 1 presents the transactions of an economy in the form of a consistency matrix. The first row and the first column (the national accounts) depict the production account of the economy. As presented, the national accounts group the activities of all producing units together. Thus, they include the production of all incorporated enterprises (including financial institutions), unincorporated enterprises, producers of government services, and production by households, regardless of the type of good or service produced.

Across row 1, the table describes how goods and services that are currently produced domestically (Y) or imported (Z) in the current production period are used for government consumption (C_g), private consumption (C_p), exports (X), and gross investment of the government and private sectors (I_g and I_p); that is, the acquisition of physical assets as distinct from the acquisition of financial instruments. This describes the expenditure approach to the estimation of GDP. The value added approach to the estimation of GDP is adopted in column 1 wherein the value at market prices of current domestic production is broken up by identifying the types of incomes that are generated through the sale (plus own consumption) of domestic production. These incomes are in the form of: (i) net operating surplus of the public sector (OS_g); (ii) depreciation of capital engaged in public sector's production (D_g); (iii) net indirect taxes, i e, indirect taxes (Ti) less subsidies (Sb); (iv) wages and net profits of the private sector; and (v) depreciation of capital engaged in private sector's production (D_p). The sum of (i), (ii) and (iii) mentioned above yields Ymp_g, i e, the share of the government sector in GDP at current market

Table 1: Consistency Accounting Matrix

Sources (Across) and Uses (Down)	Current Account of (C1) National Accounts	(C2) Government Sector	(C3) Private Sector Sector	(C4) External Sector	(C5) Monetary Sector	(C6) Government Sector	(C7) Private Sector	Capital Account of (C8) External Sector	(C9) Monetary Sector	(C10) Total Investment	Total
National accounts (R1)		Government consumption (C_g)	Private consumption (C_p)	Exports of goods and services (X)		Gross government investment (I_g) or (δK_g)	Gross private investment			Total investment (Gross) (I) or (δK)	GDP at market prices plus imports (Y+Z) = $C_g + C_p + X + I_g + I_p + Z$
Government Sector (R2)	Net operating surplus of G plus Dep_g plus Indirect taxes less subs [OSg + D_g + (Ti-Sb)]		Direct taxes (Td)	Net transfers from E to G (NTR_{eg})							Total government revenue = $(Y_g) = OS_g + D_g + (Ti - Sb) + Td + NTR_{eg}$
Private sector (R3)	Wages plus net profit accruing to P plus Dep_p $[(w + \pi) + D_p]$	Net G transfers to P and interest on dom debt $(NTR_{gp} + INT_g)$		Net transfers and factor payments from E to P $(NTR_{ep} + NFP_{ep})$							Total private sector income $(Yp) = (w + \pi) + Dp + NTR_{gp} + NTR_{ep} + NFP_{ep}$
External sector (R4)	Imports of goods and services (Z)	Inv inc of E from G including interest payment (INV_{ge})	Inv inc of E from P including interest payment (INV_{pe})								Current expenditure or payments (Abroad) = $INV_{ge} + INV_{pe} + Z$
Monetary sector (R5)											
Savings and Borrowings of Government sector (R6)		Gross government savings (S_g)					Net change in G borrowings from P (δNDB_g)	Net change in foreign borrowings of G (δNFB_g)	Change in domestic credit to G (δDC_g)		Government savings plus δ govt borrowings $= S_g + \delta DC_g$ $\delta NDB_g + \delta NFB_g$
Private sector (R7)			Gross private savings (S_p)					Net change in E borrowing of P (δNFB_p)	Change in dom credit to P (δDC_p)		Pvt savings plus δ pvt borrowings $= S_p + \delta DC_p + \delta NFB_p$
External sector (R8)				E savings or CAD of the domstic economy					Change in foreign exchange reserves (δR)		External savings plus δ reserves = CAD + δR
Monetary sector (R9)							Change in broad money plus other liabilities (δM)				δ Domestic liabilities of the monetary sector = δM
Total savings (sum of 4 rows) (R10)		Gross government savings (S_g)	Gross private savings (S_p)	Current account deficit (CAD)							Domestic plus foreign savings $= S_g + S_p + CAD$
Total	GDP at market prices + imports (Y) + Z = OSg + Dg + (Ti-Sb) + $(w + \pi)$ + Dp = Z	Total government current uses = CEXPg + Sg = Cg + $NTR_{gp} + INT_{gp}$	Total private current uses = $CEXP_p + S_p$ = CP + Td + $INV_{pe} + S_p$	Toral current foreign exg recepts = X + NTR_{eg} + NTR_{ep} + CAD		Government investment $= I_g$	δ Assets of private sector $= I_p + \delta NDB_g$ $= \delta M$	δ in foreign borrowings = (δNFB) = $(\delta NFB_g + \delta NFB_p)$	δ Assets of monetary system = $(\delta DC_g + \delta DC_p + \delta R)$	Total investment (I or δK) = $I_g + I_p$	

Note: (1) G, P and E refer to government sector, private sector and external sector sector respectively. (2) The 'δ' preceding any variable indicates one period change in that variable, ie, $\delta DC = DC - DC(-1)$.

prices; and that of (iv) and (v) yields Ymp_p, i e, the share of the private sector.

Row 2 and column 2 of Table 1 depict the current transactions of the government. Across row 2 the sources of government income (Y_g) are identified. These are: (i) gross income accruing to the government from GDP at factor cost at current prices (Ymp_g); (ii) direct taxes (Td) which comprise corporate taxes (Td_c), direct taxes as paid by households (Td_h) and miscellaneous receipts of government administrative departments (MR); and (iii) net official transfers that the government receives from external sources (NTR_{eg}). Column 2 describes current government expenditures ($CEXP_g$) as the sum of: (i) government consumption of currently produced goods and services (C_g), which is the cost of providing government services, (ii) net payments from the government to the private sector (NPgp), which includes net transfers to domestic households (NTR_{gp}) and interest paid to households on domestic debt (INT_{gp}), and (iii) net investment income accruing to the external sector from the government (INV_{ge}) of which the interest that the government pays on its external debt (INT_{ge}) forms a major component. Government savings (S_g) -- at the intersection of row 6 and column 2 -- is the difference between government income (Y_g) and expenditure ($CEXP_g$).

Row 3 and column 3 describe the accounts of the non-government (private) sector. Across the row the sources of income of private households (Y_p) are identified as: (i) gross income accruing to the private sector from GDP at factor cost current prices (Ympp) (ii) net payments received by the private sector from the government (NP_{gp}), and (iii) net external receipts of the private sector (NERep) comprising net transfers payments from the external to the private sector (NTR_{ep}) plus net factor payments from abroad (NFP_{ep}). Column 3 describes the disposal of private sector income as the sum of (i) private consumption (C_p), (ii) payment of direct taxes (Td), and (iii) net investment income accruing to the external sector from the private sector (INV_{pe}) of which the interest that the private sector pays on its external borrowings (INT_{pe}) forms a major component. Private savings (S_p), appearing at the intersection of row 7 and column 3, is the item that balances the current expenditures of households ($CEXP_p$) and household (private sector's) income (Y_p).

Row 4 and column 4 depict the current account balance. Entries in row 4 show the sources of income accruing to foreign residents. These include (i) net investment incomes accruing to the external sector from the government sector (INV_{ge}) and the private sector (INV_{pe}), and (ii) the proceeds of the domestic economy's imports of goods and services (Z). Payments of principal on the external debt (amortisation) are recorded in the capital finance accounts, i e, 'below the line' (see rows and columns 6 through 9), and are thus not included in the current account. Column 4 indicates that foreign residents, in turn, purchase the exports of the economy (X) and make transfers (current as opposed to capital transfers) to the government (NTR_{eg}), as well as make transfers and net factor payments to the private sector ($NTR_{ep} + NFP_{ep} = NER_{ep}$). The savings of foreign residents in their dealings with the economy -- identical to the current account deficit of the domestic economy (CAD) -- is the balancing item between current external expenditures and foreign exchange receipts.

As a pure intermediary, the monetary system has no independent (own account) current revenues and expenditures. As previously pointed out, the revenues of financial institutions (service charges, interest on loans, and earnings on investment made with deposits or premiums) less the costs (interest on deposits or claims paid) constitute the value added of institutions within the monetary system as producing units. This value added is included in the production account of the domestic economy as income to households or to the government. Row 5 and column 5 are therefore empty.

Capital Account

While rows and columns 1 through 5 describe the current accounts of the economy, rows and columns 6 through 9 describe the corresponding capital account transactions, i e, the financing of asset acquisition by the government, the private sector and the external sector through the intermediary of the monetary system.

In row 6 gross savings of the government (S_g) and new borrowings from the monetary system (δDC_g), net direct borrowing from the private sector (δNDB_g), and foreign borrowing (δNFB_g) are used to finance asset acquisition by the government, i e, gross public sector investment (I_g). Public sector investment is of three forms: gross fixed investment (including physical assets, inventories and working capital, as well as intangible non-financial assets); investment in financial assets in the form of loans to the private sector; and the acquisition of foreign assets. The last two items have been netted out of government borrowings from the private sector and foreign borrowings of the government, respectively, and therefore these items do not appear as separate entries in the matrix.

Row 7 and column 7 deal with the private sector. Gross private sector savings (S_p), borrowings by the household from the monetary system (δDC_p), and net new private borrowings from foreign residents (δNFB_p) are used to finance gross private sector investment (I_p), net lending to the government (δNDB_g), and holdings of new issues of domestic currency, demand as well as time deposits issued by the monetary system (δM).

Similarly, in row 8 and column 8, the savings of foreign residents or the current account deficit of the domestic economy (CAD) plus the proceeds from the acquisition of new foreign assets (accumulation of international reserves) by the monetary system (δR) are used to finance the net foreign borrowings of the government (δNFB_g) as well as the private sector' (δNFB_p).

Row 9 and column 9 deal with the monetary system. As an intermediary it acquires liabilities in the form of new domestic currency issues, demand deposits, time deposits, and other liabilities such as treasury bills, and so on (δM). It, in turn, acquires assets in the form of loans to the government and the private sectors (δDC_g and δDC_p), and net foreign assets or international reserves (δR).

Row 10 and column 10 deal with the savings-investment link at the macroeconomic level and indicate that domestic savings, i e, the sum of government savings (S_g) and private savings (S_p), plus foreign savings (CAD) must finance total investment, i e, the sum of government investment (I_g) and private investment (I_p).

In effect, therefore, Table 1 summarises the current and capital account transactions of the four principal transactors in an economy, and can be used to demonstrate that the national income identities are no more than a series of budget constraints.

IV
Flow-of-Funds versus Market Equilibrium

The link between savings and investment of each sector and its associated financial transactions with the other sectors must be clearly understood so that appropriate financial policies, based on reliable and consistent macro-economic forecasts, can be formulated and executed. In this context, flow-of-funds accounts are essential prerequisites for the formulation of any

financial programme as they form the basis for ensuring consistency

The procedure in formulating a financial programme is therefore to construct flow-of-funds matrices for each year so that the pattern of financial transactions is discernible Based upon such patterns, it is usually possible to fill in the elements of the flow-of-funds matrix for a future period, consistent with each sector's savings and investment behaviour, and the monetary and fiscal policies likely to be in force Since the flow-of-funds matrix also depends on financial conditions which can be influenced by financial policies and which interact with the behaviour of income and expenditure flows, the construction of such a consistency matrix often involves an iterative procedure until overall consistency is achieved

In Tables 2 1 and 2 2, we have projected the flow-of-funds matrices for the Indian economy for 1996-97 and 1997 98 using the latest available data All estimates in

TABLE 2 1 CONSISTENCY ACCOUNTING MATRIX FOR THE INDIAN ECONOMY THE YEAR (1996 97)

Sources (Across) and Uses (Down)	Current Account of (C1) National Accounts	(C2) Government Sector	(C3) Private Sector	(C4) External Sector	(C5) Monetary Sector	Capital Account of (C6) Government Sector	(C7) Private Sector	(C8) External Sector	(C9) Monetary Sector	(C10) Total Investment	Total
National accounts (R1)		C_g = 191127	C_p = 784955	X = 148437		I_g = 109997	I_p = 239133			I = 349130	1473649
Government sector (R2)	Y_{mpg} = 270132		T_d = 46781	NTR_{cg} = 1457							318370
Private sector (R3)	Y_{mpp} = 1006842	NP_{gp} = 99064		NER_{cp} = 42711							1148617
External sector (R4)	Z = 196675	INV_{cg} 3916	INV_{pc} = 7583								208444
Monetary sector (R5)											
Savings and Borrowings of											
Government sector (R6)		S_g = 24263					δNDB_g = 50942	δNFB_g = 3998	δDC_g = 30794		109997
Private sector (R7)			S_p 309028					δNFB_p = 29139	δDC_p = 31364		369531
External sector (R8)				CAD= 15839					δR= 17298		33137
Monetary sector (R9)							δM= 79456				79456
Total savings (sum of previous 4 rows (R10)		S_g = 24263	S_p 309028	CAD= 15839							349130
Total	1473649	318370	1148617	208444		109997	369531	33137	79456	349130	

Note Y = 1 276 974 g = 7 5 per cent π = 6 4 per cent e = 6 1 per cent

TABLE 2 2 CONSISTENCY ACCOUNTING MATRIX FOR THE INDIAN ECONOMY THE YEAR (1997 98)

Sources (Across) and Uses (Down)	Current Account of (C1) National Accounts	(C2) Government Sector	(C3) Private Sector	(C4) External Sector	(C5) Monetary Sector	Capital Account of (C6) Government Sector	(C7) Private Sector	(C8) External Sector	(C9) Monetary Sector	(C10) Total Investment	Total
National accounts (R1)		C_g = 232354	C_p 882843	X= 164444		I_g = 138554	I_p = 245660			I= 384214	1663655
Government sector (R2)	Y_{mpg} = 314699		Td 55126	NTR_{cp} = 1305							371130
Private sector (R3)	Y_{mpp} = 1006842	NP_{gp} = 110477		NER_{cp} = 42343							1282533
External sector (R4)	Z= 219443	INV_{cg} = 2299	INV_{pc} = 10905								232647
Monetary sector (R5)											
Savings and Borrowings of											
Government sector (R6)		S_g = 26000					δNDB_g = 69235	δNFB_g = 3430	δDC_g = 39889		128443
Private sector (R7)			S_p = 333659					δNFB_p = 33207	δDC_p = 53940		420806
External sector (R8)				CAD= 24555					δR= 12082		36637
Monetary sector (R9)							δM= 105911				105911
Total savings (sum of previous 4 rows (R10)		S_g = 26000	S_p = 333659	CAD= 24555							384214
Total	1663855	371130	1282533	232647		138554	420806	36637	105911	384214	

Note Y = 1 444 412 g = 5 1 per cent π = 5 0 per cent e = 4 7 per cent

these tables are at rupees crore at current prices. Based upon these projections, we will attempt to identify changes, if any, in financial patterns which could be considered responsible for the economic slowdown in 1997-98.

In both the tables, reading across rows provides the sources of finance for each sector while reading down columns indicates the uses of finance. *Ex-post*, each sector's deficit must be financed and, as such, the sum of the rows is always equal to the sum of the columns. *Ex-ante*, these sectoral balances become constraints for modelling sectoral behaviour, be it financial or non-financial. It is these constraints that will be included while specifying the financial programming model that follows.

The fundamental difference between the flow-of-funds and the market equilibrium approaches while formulating a model is that sectoral balances are treated as constraints in the former while the latter treats market equilibria as constraints. In the case where market forces and instantaneous adjustments co-exist, these two types of constraints are equivalent since when all sectoral accounts are balanced, all markets must be cleared. However, any market imperfections and lag adjustments would create a situation where sectoral balances are not equivalent to market equilibria. For instance, when credit rationing is in force, the money market cannot be in equilibrium by definition. The resulting disequilibrium in the money market must co-exist with the disequilibrium in at least one other market in the economy. In such cases, sectoral balances yield more reliable constraints.

Financial Patterns

Based upon the flow-of-funds matrices presented in Tables 2.1 and 2.2, as well as the supplementary information on GDP at current market prices (Y), the growth rate of real GDP (g), the inflation rate (π), and the exchange rate depreciation (e), the following patterns emerge:

(1) An event which had a profound influence on the pattern of financial transactions in 1997-98 was the sudden fall (***even in absolute terms***) in net transfers from the external sector to, both, the government sector (NTReg) as well as the private sector (NTRep) which decreased from 3.5 per cent of GDP in 1996-97 to 3.0 per cent in 1997-98.

(2) With tax receipts (Td) covering barely 50 per cent of net payments by the government to the private sector (NPgp) in 1997-98, and with government consumption (Cg) increasing from 60 per cent of total government revenue (Tg) in 1996-97 to 63 per cent in 1997-98, public sector savings (Sg) decreased to 1.8 per cent of GDP in 1997-98 from 1.9 per cent in 1996-97.

(3) Although there was an across-the-board reduction in direct tax rates in 1997-98, total direct tax revenue (Td) as a fraction of GDP actually increased from 3.66 per cent in 1996-97 to 3.82 per cent in 1997-98, definitely as a result of a wider tax base and probably (if the 'Laffer curve' hypothesis is to be accepted) because of better tax compliance.

(4) Consequently, private disposable income (Yp-Td) decreased from 86.3 per cent of GDP in 1996-97 to 85.0 per cent in 1997-98; while private savings decreased from 28.1 per cent of private disposable income in 1996-97 to 27.2 per cent in 1997-98.

(5) Despite this fall in the savings rate, there was no perceptible increase in private consumption (Cg) which remained stagnant at about 72 per cent of private disposable income in 1997-98. The question then arises as to where private disposable income was being 'disposed' off.

(6) In this context, it needs to be noted that 1997-98 was marked by a sudden increase in interest payments by the private sector on account of its external liabilities (INVpe) which amounted to almost Rs 11,000 crore (which was 1 per cent of private disposable income). While we are still conjecturing at this stage as to what could be the reason(s) for the downturn in demand which has characterised the best part of last year and this year as well, it is possible that this massive outflow of private sector resources (which could otherwise have been used to augment its consumption plans) is one of the prime reasons.

(7) Despite the fact that the exchange rate depreciated by more than 10 per cent (on a point-to-point basis) in 1997-98, the current account deficit (CAD) worsened further from 1.2 per cent of GDP in 1996-97 to 1.7 per cent in 1997-98 which could be an indication that the economy is still operating on the envelope of shifting 'J-curves'. In such a case, the further depreciation of the rupee in 1998-99 would continue to mask improvements in the CAD.

(8) While capital flows as a proportion of the CAD (δNFB/CAD) was almost 2.1 in 1996-97, it decreased sharply to 1.5 in 1997-98, partly as a fallout of the south-east Asian economic meltdown. As a result, reserve accretion (ΔR) was much lower in 1997-98.

(9) In an effort to pre-empt the economic downturn, the RBI decided to stimulate the economy via a strong burst in domestic credit expansion (ΔDC) which increased from 4.9 per cent of GDP in 1996-97 to 6.5 per cent in 1997-98. Consequently, monetary growth was of the order of 17.6 per cent in 1997-98 as against 16.2 per cent in 1996-97.

(10) Despite this increase in money supply and despite the fall in the real growth rate from 7.5 per cent in 1996-97 to 5.1 in 1997-98, the fact that the inflation rate was only 4.8 per cent in 1997-98 as against 6.4 per cent in 1996-97 is a mute testimony to the sheer extent of depressed demand which persisted in the economy.

(11) The direct beneficiary of the credit expansion was the private sector whose 'entitlement' ($\Delta DC_p/\Delta DC$) increased from 50.5 per cent in 1996-97 to 57.5 per cent in 1997-98. With limited scope for money financing of the fiscal deficit, the government was thus forced to meet a large part of its needs from the market. Thus market borrowings (ΔNDB_g) increased from 4.0 per cent of GDP in 1996-97 to 4.8 per cent in 1997-98.

(12) Consequently, the ratio of financial asset creation (ΔNDBg + ΔM) to GDP increased from 10.2 per cent in 1996-97 to 12.2 per cent in 1997-98; while the ratio of self-financed private investment (Ip/Sp) decreased from 77.4 per cent in 1996-97 to about 73.6 per cent in 1997-98.

(13) Such a pattern of money-financing (ΔM) and debt-financing (ΔNDB_g) to cover fiscal deficits implied that the distribution of private sector asset formation was skewed much more towards financial (non-productive) rather than physical (productive) assets. Thus, while in 1996-97, the ratio of financial asset creation ($\Delta NDB_g + \Delta M$) to physical asset creation (I_p) in the private sector was about 35:65, this ratio changed adversely to 42:58 in 1997-98 signalling a crowding-out of private sector physical investment. This could also be a reason as to why growth decreased so substantially in 1997-98.

V
Growth-Oriented Financial Programming: A Conceptual Framework

Based upon the key elements of the consistency accounting framework discussed above, we now specify a growth-oriented financial programming model. Nominal income (Y) is equal to Py where P is the domestic price level and y is real output. The money market is assumed to be in equilibrium, implying that real money stock (M/P) equals real money demand (Md/P) which is assumed to be a function of real income and the nominal interest

rate (i). The velocity of money (v) is assumed to be equal to real output divided by real money demand. Nominal money supply (M) is related to nominal income with the velocity of money being given endogenously. Nominal money supply is given as the sum of domestic credit (DC) and foreign exchange reserves (R). The change in reserves (ΔR) equals the sum of the trade balance (X–Z) and other capital flows (ΔF). Investment (I) is the sum of domestic savings (S) and foreign savings, the latter being synonymous with the current account deficit (Z–X). Real output is a function of real investment (I/P) with the incremental output-capital ratio (k) assumed to be a constant.

Therefore, the theoretical model is given by the following 8 equations:

$$Y = Py \qquad (5.1)$$

$$M/P = Md/P = Ay^{\alpha}e^{-i\beta} \qquad (5.2)$$

$$v = y/(Md/P) \qquad (5.3)$$

$$Mv = Y \qquad (5.4)$$

$$M = DC + R \qquad (5.5)$$

$$\Delta R = (X - Z) + \Delta F \qquad (5.6)$$

$$I = S + (Z - X) \qquad (5.7)$$

$$\Delta y = k[I/P] \qquad (5.8)$$

The above model will now be compressed into a 4-equation core, explaining growth, inflation, reserves and the interest rate by incorporating important modifications in the model

Monetary Sector Equilibrium

Substituting eq (5.4) into eq (5.5), taking first-differences, and using eq (5.1) – which indicates that $\Delta Y = (g + \pi)\, Y(-1)$ – yields the following equation for monetary sector equilibrium:

$$\Delta R = (1/v)\,(g+\pi)\,Y(-1) - \Delta DC \qquad (5.9)$$

where g is the real growth rate, i e, $g = \Delta y/y(-1)$; π is the inflation rate, i e, $\pi = \Delta P/P(-1)$; and Y(-1) is the lagged value of nominal income. The income velocity of money (v) is provided exogenously in the above formulation by specifying that the income elasticity of real money demand is equal to unity ($\alpha = 1$) in eq (5.2). This implies that:

$$v = 1/Ae^{-i\beta} \qquad (5.10)$$

In order to measure foreign exchange reserves in terms of foreign currency units, eq (5.9) above has to be changed to reflect the valuation effects of exchange rate changes on the balance sheet of the banking system. The stock of foreign exchange reserves in domestic currency units (R) is equal to the nominal exchange rate (E) times the stock of foreign exchange reserves in foreign currency units (R*), i e,

$$R = ER^* \qquad (5.11)$$

Therefore, changes in the domestic value of foreign exchange reserves may arise either due to changes in the exchange rate, changes in the stock of foreign exchange reserves in foreign currency units, or both. Therefore:

$$\Delta R = E(-1)\Delta R^* + R^*(-1)\Delta E \qquad (5.12)$$

which is obtained by ignoring the second-order interaction term, $\Delta E \Delta R^*$.

Substituting eq (5.12) into eq (5.9) and solving the resulting expression for ΔR^* yields after simplification:

$$\Delta R^* = (1/v)\,Y^*(-1)\,\pi + (1/v)Y^*(-1)\,g - [1/E(-1)]\Delta DC - R^*(-1)e \qquad (5.13)$$

where $Y^*(-1) = Y(-1)/E(-1)$, i e, nominal income in the previous period expressed in terms of foreign currency units, and $e = \Delta E/E(-1)$, i e, the rate of change of the exchange rate.

Eq (5.13) can be re-written as follows:

$$\Delta R^* - \alpha(1)\pi - \alpha(2)\,g = -\alpha(3)\,\Delta DC - \alpha(4)\,e \qquad (5.14)$$

where

$$\alpha(1) = \alpha(2) = (1/v)Y^*(-1) \qquad (5.15a)$$

$$\alpha(3) = 1/E(-1) \qquad (5.15b)$$

$$\alpha(4) = R^*(-1) \qquad (5.15c)$$

External Sector Equilibrium

Exports in domestic currency units (X) is equal to the nominal exchange rate (E) times the value of exports in foreign currency units (X*), i e,

$$X = EX^* = [E(-1) + \Delta E]X^* \qquad (5.16)$$

In a similar fashion, the change in the domestic value of foreign borrowings is given by:

$$\Delta F = E(-1)\Delta F^* + F^*(-1)\Delta E \qquad (5.17)$$

Imports in domestic currency units (Z) is equal to the nominal exchange rate (E) times the value of imports in foreign currency units (Z*), i e, $Z = EZ^*$. The latter, in turn, is equal to the foreign price level (P_f) times the volume of imports (QZ), i e, $Z^* = P_f\,(QZ)$. The import volume equation is given by:

$$QZ = Ay^{m}(EP_f\,/P)^{-b} \qquad (5.18)$$

where m and b are positive parameters that measure the elasticity of the volume of imports to real output and to the relative price of importables, respectively. Therefore, we have:

$$Z = Ay^{m}E^{(1-b)}P^{b}P_f^{(1-b)} \qquad (5.19)$$

Logarithmic differentiation of eq (5.19) with respect to time and its subsequent discrete-time representation yields:

$$Z = [1 + mg + (1-b)\,e + b\,\pi + (1-b)\,\pi_f]\,Z(-1) \qquad (5.20)$$

where g is the growth rate of real output (y), e is the rate of change of the nominal exchange rate (E), π is the domestic inflation rate, and π_f is the foreign inflation rate.

Substituting eqs (5.12), (5.16), (5.17) and (5.20) into eq (5.6) and solving the resulting expression for ΔR^* yields after simplification:

$$\Delta R^* = -bZ^*(-1)\,\pi - mZ^*(-1)\,g + [F^*(-1) + X^* - (1-b)Z^*(-1) - R^*(-1)]\,e + \Delta F^* + [X^* - Z^*(-1) - (1-b)Z^*(-1)\pi_f] \qquad (5.21)$$

Eq (5.21) can be re-written as follows:

$$\Delta R^* + \beta(1)\,\pi + \beta(2)\,g = \beta(3)\,e + \Delta F^* + \beta(4) \qquad (5.22)$$

where

$$\beta(1) = bZ^*(-1) \qquad (5.23a)$$

$$\beta(2) = mZ^*(-1) \qquad (5.23b)$$

$$\beta(3) = [F^*(-1) + X^* - (1-b)Z^*(-1) - R^*(-1)] \qquad (5.23c)$$

$$\beta(4) = [X^* - Z^*(-1) - (1-b)Z^*(-1)\pi_f] \qquad (5.23d)$$

Real Sector Equilibrium

We now assume that real output (y) is determined by a Harrod-Domar type growth equation given by:

$$y = (1-d)y(-1) + k(I/P) \qquad (5.24)$$

where k is the incremental output-capital ratio, d is the fraction of capital stock depreciated each period, and (I/P) is real investment, i e, nominal investment (I) divided by the price level (P).

In terms of the growth rate (g), eq (5.24) can be written as:

$$g = k\,\frac{(I/P)}{y(-1)} - d \qquad (5.25)$$

We now replace y(-1) by Y(-1)/P(-1) which is its definitional equivalent, and then replace P(-1)/P by $1/(1+\pi)$ which follows from the definition of the inflation rate, i e, $\pi = [P/P(-1)] - 1$.

Eq (5.25) can then be written as:

$$g = k\,\frac{[I/Y(-1)]}{(1 + \pi)} - d \qquad (5.26)$$

It is now assumed that nominal savings (S) are a linear function of nominal income (Y) and the nominal interest rate (i). Therefore, we have:

$$S = sY + \iota\, i \qquad (5.27)$$

where s is the marginal propensity to save, and ι measures the responsiveness of savings to the interest rate.

Taking first-differences of eq (5.27), writing it in terms of S, and using eq (5.1) yields:

$$S = S(-1) + s(g+\pi)Y(-1) + \iota\,\Delta i \qquad (5.28)$$

Substituting eq (5.6) into eq (5.7) yields:

$$I = S + \Delta F - \Delta R \qquad (5.29)$$

Substituting eq (5.28) into eq (5.29) above yields the following relationship between investment, growth, inflation, interest rates and reserves:

$$I = S(-1) + s(g+\pi)\, Y(-1) + \iota\Delta i + \Delta F - \Delta R \qquad (5.30)$$

Replacing ΔF and ΔR by their current representations which are given by eqs (5.17) and (5.12), respectively, yields:

$$\begin{aligned} I = {} & S(-1) + s(g+\pi)\, Y(-1) + \iota\Delta i \\ & + E(-1)\Delta F^* + F^*(-1)\Delta E \\ & - E(-1)\Delta R^* - R^*(-1)\Delta E \qquad (5.31) \end{aligned}$$

The growth equation, eq (5.26), when simplified by setting $\pi g = 0$, yields:

$$g = k[I/Y(-1)] - d(1+\pi) \qquad (5.32)$$

Substituting eq (5.31) into eq (5.32) above yields:

$$\begin{aligned} g = {} & ks(-1) + ks(g+\pi) + k[(^*/Y^*(-1)]\Delta i \\ & + k[1/Y^*(-1)]\Delta F^* + k[F^*(-1)/Y^*(-1)]\, e \\ & - k[1/Y^*(-1)]\Delta R^* - k[R^*(-1)/Y^*(-1)]\, e \\ & - d - d\pi \qquad (5.33) \end{aligned}$$

where $\iota^* = \iota / E(-1)$. This can be written as:

$$\begin{aligned} & \gamma(1)\Delta R^* + \gamma(2)\pi + \gamma(3)g - \gamma(7)i \\ & \quad = -\gamma(8)i(-1) + \gamma(4)e + \gamma(5)\Delta F^* \\ & \qquad + \gamma(6) \qquad (5.34) \end{aligned}$$

$$\begin{aligned} \text{where} \quad & \gamma(1) = \gamma(5) = k/Y^*(-1) \qquad (5.35a) \\ & \gamma(2) = d - sk \qquad (5.35b) \\ & \gamma(3) = 1 - sk \qquad (5.35c) \\ & \gamma(4) = k[F^*(-1) - R^*(-1)]/Y^*(-1) \qquad (5.35d) \\ & \gamma(6) = ks(-1) - d \qquad (5.35e) \\ & \gamma(7) = \gamma(8) = k[\iota^*/Y^*(-1)] \qquad (5.35f) \end{aligned}$$

Financial Sector Equilibrium

Once the process of financial liberalisation gets under way, policy-makers are faced with quite a different set of issues because the focus of attention shifts away from investigating the effects of freeing interest rates to examining how interest rates ought in fact to be determined. It is obvious that the process of determination of interest rates will be significantly different under alternative degrees of openness of the capital account of the BOP. For example, in the case of countries with a fully open capital account, some form of interest arbitrage will hold, with domestic interest rates depending on world interest rates, expected devaluation, and perhaps some risk factors. In contrast, in countries with a completely closed economy, open economy factors will obviously play no role whatsoever, and the nominal interest rate will depend only upon expected inflation and the prevailing conditions in the domestic money market. Most developing countries, however, do not fall in either of these two categories, so that interest rates will in general depend both on domestic as well as on foreign money market conditions. From a policy perspective, it is important to determine the way in which these different factors actually affect domestic interest rates, because the success of any growth-oriented adjustment programme depends critically upon an appropriate interest rate policy.

In this context, Edwards and Khan (1985) proposed a framework for empirically analysing the determination of nominal interest rates in developing countries. Their model combines features of both closed- and open-economy characteristics and specifically examines the respective influences of domestic monetary conditions and foreign factors on interest rates. The ensuing discussion is carried out with special reference to their framework.

Interest rates in a closed economy: Following the standard Fisher approach and ignoring the effects of taxation on the relation between expected inflation and the nominal interest rate [Darby 1975, Tanzi 1975], we can specify the nominal interest rate (i) as equal to:

$$i = r + \pi^e \qquad (5.36)$$

where r is the real (*ex-ante*) rate of interest; and π^e is the expected rate of inflation.

The real rate of interest can be specified as:

$$r = \rho - \lambda EMS + \omega \qquad (5.37)$$

where ρ is a constant representing the long-run equilibrium real rate of interest; EMS represents the excess supply of money; λ is a parameter ($\lambda > 0$) and ω is a random error term. According to eq (5.37), the real rate of interest deviates from its long-run equilibrium level ρ only if there is a monetary disequilibrium in the form of an excess demand for or supply of real money balances. This relation has been termed as the 'liquidity effect' in the literature [Mundell 1963]. Introducing this liquidity effect into the model allows the real rate of interest to be variable in the short run. As such, even though the Fisher equation, eq (5.36) is assumed to hold continuously, the possibility of slow adjustment of the real interest rate (given by λ) implicitly allows for the possibility of a delayed response of the nominal interest rate to monetary reform.

The excess supply of money by:

$$EMS = \ln m - \ln m^d \qquad (5.38)$$

where m (= M/P) is the actual money stock, and m^d is the desired equilibrium stock.

The long-run equilibrium demand for money is assumed to be a function of the expected rate of inflation (π^e), the equilibrium nominal rate of interest ($\rho + \pi^e$) – rather than the current nominal interest rate (i) – and real income (y). It is therefore given by:

$$\ln m^d = \alpha(0) + \alpha(1) \ln y - \alpha(2)[\rho + \pi^e] - \alpha(3)\pi^e \qquad (5.39)$$

The model is then closed by assuming that the stock of real money balances adjusts according to:

$$\Delta \ln m = \beta\, [\ln m^d - \ln m(-1)] \qquad (5.40)$$

where $\Delta \ln m = \ln m - \ln m(-1)$; and β $(0 \le \beta \le 1)$ is the coefficient of adjustment.

Substituting eq (5.40) into eq (5.38) yields:

$$EMS = (1-\beta)\, [\ln m(-1) - \ln m^d] \qquad (5.41)$$

Interest rates in an open economy: If the economy is completely open to the rest of the world and there are no impediments to capital flows, domestic and foreign interest rates will be closely linked. In particular, if there are no transaction costs and all agents are assumed to be risk-neutral, then the following uncovered interest arbitrage relationship will hold:

$$i = i_f + e^e \qquad (5.42)$$

where i_f is the world interest rate (for a financial asset of similar characteristics), and e^e is the expected rate of change of the exchange rate, i e, $e^e = \Delta e^e / e(-1)$.

If we assume that, because of frictions arising from transactions costs and information lags, domestic interest rates respond with delay to changes in the foreign rate of interest or in exchange rate expectations, then eq (5.42) can be re-written in a partial adjustment framework as follows:

$$\Delta i = \theta\, [\{i_f + e^e\} - i(-1)] \qquad (5.43)$$

where θ is the adjustment parameter, $0 \le \theta \le 1$. If the domestic financial market adjusts rapidly, the parameter θ will tend towards unity. Conversely, a small value of θ would imply slow adjustment of the domestic interest rate. In terms of the domestic interest rate, eq (5.43) can be written as:

$$i = \theta\, [i_f + e^e] + (1-\theta)\, i(-1) \qquad (5.44)$$

The general case: Having examined interest rate determination under two polar cases related to the degree of openness of the economy, it is possible to visualise that both open as well as closed economy factors will affect the behaviour of domestic interest rates, at least in the short run. Under the circumstances, we assume that the equation for the nominal interest rate can be

specified as a weighted average of the open and closed economy expressions. Denoting these weights by ψ and $(1-\psi)$, and combining eqs (5.36) and (5.44), we obtain:

$$i = \psi\,[\theta\{i_f + e^e\} + (1-\theta)\,i(-1)] + (1-\psi)\,[r + \pi^e] \qquad (5.45)$$

where the parameter ψ can be interpreted as an index measuring the degree of financial openness of the country with ψ ranging from 0 (completely closed economy) to 1 (completely open economy). Thus, given the data, it is possible to determine the degree of openness of the financial sector for a given economy, and this estimated degree of openness will provide some information on the actual degree of integration of the domestic capital market with the world capital market.

Substituting eqs (5.37), (5.41) and (5 39) into eq (5.45) above, we obtain the following expression for the nominal interest rate for a semi-open economy:

$$i = \delta(0) + \delta(1)\,[i_f + e^e] + \delta(2)\ln y - \delta(3)\ln m(-1) + \delta(4)\,\pi^e + \delta(5)\,i(-1) + \varepsilon \qquad (5.46)$$

where the composite parameters are given by:

$$\delta(0) = (1-\psi)[\rho+\lambda(1-\beta)\{\alpha(0)-\alpha(2)\rho\}] \qquad (5.47a)$$

$$\delta(1) = \psi\theta \qquad (5.47b)$$

$$\delta(2) = (1-\psi)\lambda(1-\beta)\alpha(1) \qquad (5.47c)$$

$$\delta(3) = (1-\psi)\lambda(1-\beta) \qquad (5.47d)$$

$$\delta(4) = (1-\psi)\,[1-\lambda(1-\beta)\{\alpha(2)+\alpha(3)\}] \qquad (5.47e)$$

$$\delta(5) = \psi(1-\theta) \qquad (5.47f)$$

and e is a random error term. Eq (5.46) s quite general because it not only incorporates closed- and open-economy features. t also allows the possibility of slow adjustment on both domestic and foreign sides.

The integration: We now have to formally integrate the nominal interest rate determination equation, given by eq (5.46), nto the framework of the model developed above. In order to do so, we initially simplify eq (5.39) and assume that the ncome elasticity of the demand for money s unity, i e, a(1) = 1. In such a case, from eqs (5.47c) and (5.47d), it is seen that d(2) = d(3), and real income and lagged money balances can be combined into one composite term, i e, [ln y-ln m(-1)], while estimating eq (5.46).

Therefore, eq (5.46) can now be rewritten as:

$$i = \delta(0) + \delta(1)\,[i_f + e] + \delta(2)\,[\ln y - \ln m(-1)] + \delta(2)\,[\ln y - \ln m(-1)] + \delta(4)\,\pi + \delta(5)\,i(-1) \qquad (5.48)$$

where we have set $\pi^e = \pi$ and $e^e = e$, and the error term ε has been dropped.

Considering that: $y = (1+g)\,y(-1)$ and $v = y/m$, i e, velocity is the ratio of real income to real money stock, eq (5.48) can be further simplified to yield the following expression:

$$i = \delta(0) + \delta(1)\,[i_f + e] + \delta(2)\,g + \delta(2)\ln v(-1) + \delta(4)\,\pi + \delta(5)\,i(-1) \qquad (5.49)$$

where v(-1) is the income velocity in the previous period.

It is thus obvious that the above equation is easily capable of being integrated into the merged framework as the interest rate is seen to be influenced by two of the three targets of the merged model, i e, inflation (π) and growth (g), as well as by an instrument, i e, exchange rate changes (e).

Eq (5.49) can be re-written as:

$$-\delta(4)\,\pi - \delta(2)\,g + i = \delta(5)\,i(-1) + \delta(1)\,e + \delta(6) \qquad (5.50)$$

where: $\delta(6) = \delta(0) + \delta(1)\,i_f + \delta(2)\ln v(-1)$ (5.51)

Structure of the Integrated Model

The structure of the integrated model, comprising eqs (5.14), (5.22), (5.34) and (5.50), is set out in Table 3 below.

VI
Monetary Stabilisation with Growth

The Model

The structure of the growth-oriented financial programming model, comprising eqs (5.14), (5.22), (5.34) and (5.50), can be set out in matrix notation as follows:

$$\begin{bmatrix} 1 & -\alpha(1) & -\alpha(2) & 0 \\ 1 & \beta(1) & \beta(2) & 0 \\ \gamma(1) & \gamma(2) & \gamma(3) & -\gamma(7) \\ 0 & -\delta(4) & -\delta(2) & 1 \end{bmatrix} \begin{bmatrix} \Delta R^* \\ \pi \\ g \\ i \end{bmatrix} = \begin{bmatrix} 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -\gamma(8) \\ 0 & 0 & 0 & \delta(5) \end{bmatrix} \begin{bmatrix} \Delta R^*(-1) \\ \pi(-1) \\ g(-1) \\ i(-1) \end{bmatrix} + \begin{bmatrix} -\alpha(3) & -\Delta(4) & 0 \\ 0 & \beta(3) & 1 \\ 0 & \gamma(4) & \gamma(5) \\ 0 & \delta(1) & 0 \end{bmatrix} \begin{bmatrix} \Delta DC \\ e \\ \Delta F^* \end{bmatrix} + \begin{bmatrix} 0 \\ \beta(4) \\ \gamma(6) \\ \delta(6) \end{bmatrix} \qquad \ldots(6.1)$$

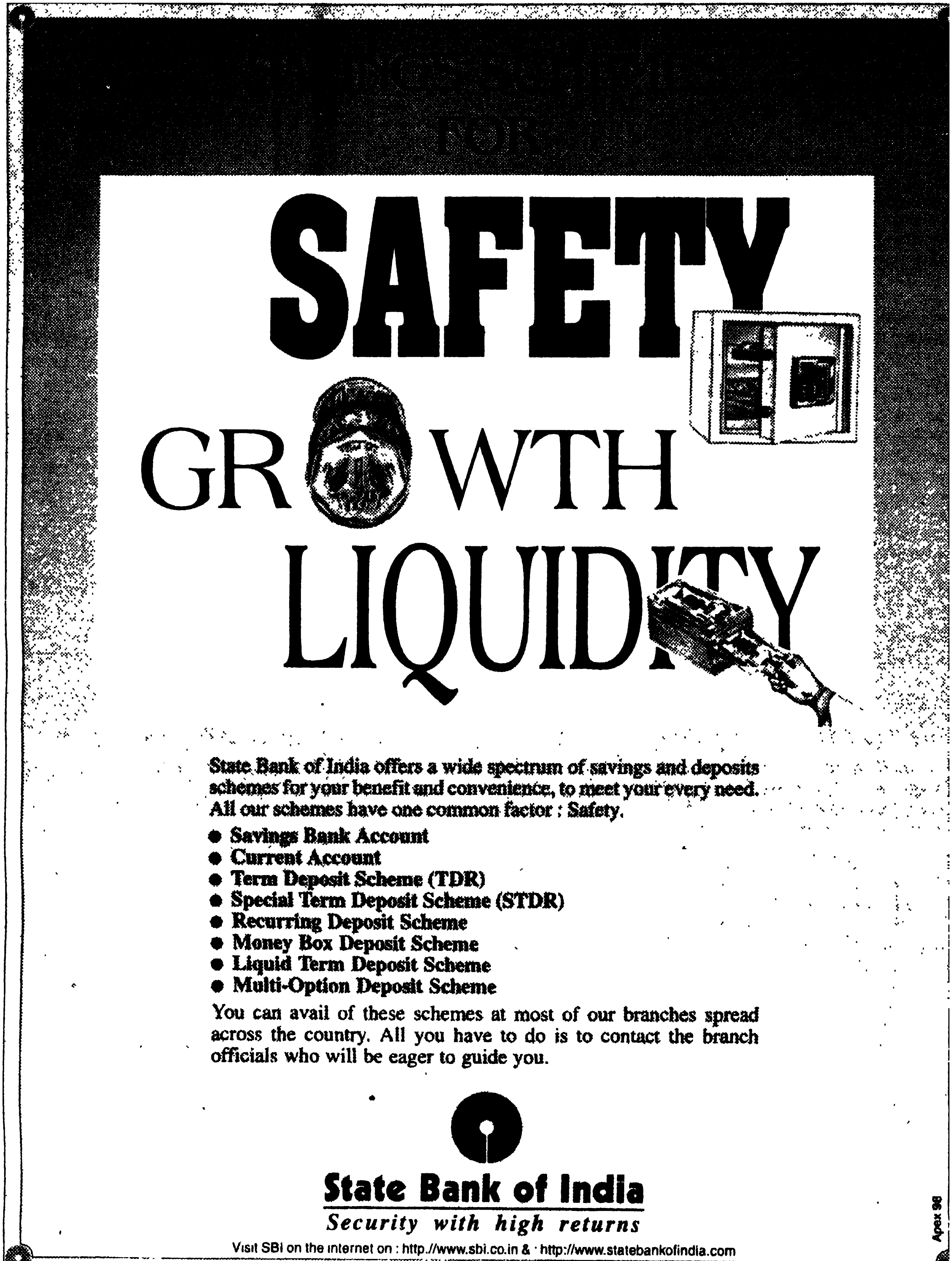
which can be written as:

$$A(0)\,x = A(1)\,x(-1) + B(0)\,u + z(0) \qquad (6.2)$$

Table 3: Structure of the Integrated Approach

Targets.	ΔR^*	change in foreign exchange reserves
	π	rate of inflation
	g	real growth rate
	i	nominal interest rate
Lagged Target:	i(-1)	nominal interest rate in the previous period
Instruments	ΔDC	change in domestic credit
	e	rate of change in the nominal exchange rate
	ΔF^*	change in foreign borrowings
Exogenous	X*	exports
	π_f	foreign inflation rate
	i_f	foreign interest rate
Predetermined	Y*(-1)	nominal income in the previous period
	Z*(-1)	nominal imports in the previous year
	R*(-1)	stock of foreign reserves in the previous period
	F*(-1)	stock of foreign borrowings in the previous period
	E(-1)	nominal exchange rate in the previous period
	s(-1)	savings propensity in the previous period
	v(-1)	velocity in the previous period
Parameters	v	velocity of money
	m	marginal propensity to import
	b	import response to exchange rate changes
	s	marginal propensity to save
	k	incremental output-capital ratio
	d	depreciation rate
	i*	savings response to interest rate changes

Notes: (1) Domestic credit (Δ DC) is measured in billions of rupees, while income (Y*), exports (X*), imports (Z*), foreign capital inflows (F*) and foreign exchange reserves (R*) are all measured in billions of US dollars. (2) The predetermined variable, E(-1), is the lagged value of the average nominal exchange rate which is defined in terms of rupees per US dollar, while the instrument (e) is the rate of change of the exchange rate, given by e = ΔE/E(-1). (3) The domestic interest rate (i) is proxied by the 1-year term deposit rate while the foreign interest rate (i_f) is proxied by the 1-year LIBOR. (4) The domestic inflation rate (π) is measured by the average wholesale price index while the foreign inflation rate (π_f) is measured by the US consumer price index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where $x = [\Delta R^* \pi\, g\, i]'$ is a (4x1) target vector; and

$u = [\Delta DC\ e\ \Delta F^*]'$ is a (3x1) vector of instruments;

$z(0)$ = (4x1) vector of exogenous and predetermined variables;

and A(0), A(1) and B(0) are appropriately dimensioned matrices of time-varying coefficients.

To apply the above theory for the Indian economy to obtain stabilisation policy options for 1998-99, we require data on: (1) the three instruments, ΔDC, e and ΔF^*, for 1998-99; (2) the three exogenous variables, X^*, π_f and i_f, for 1998-99; (3) The eight predetermined variables, $i(-1)$, $Y^*(-1)$, $Z^*(-1)$, $R^*(-1)$, $F^*(-1)$, $E(-1)$, $s(-1)$ and $\ln v(-1)$, for 1997-98; and (4) the seven parameters, v, m, b, s, k, d and ι^*. All these are given below:[1]

ΔDC = 1145	$Y^*(-1)$ = 336.5
e = 0.15	$Z^*(-1)$ = 51.1
ΔF^* = 6.0	$R^*(-1)$ = 29.4
X^* = 45.0	$F^*(-1)$ = 94.4
π_f = 0.02	$E(-1)$ = 37.16
i_f = 0.06	$s(-1)$ = 0.266
$i(-1)$ = 0.11	$\ln v(-1)$ = 0.3784

v = 1.41
m = 4.2997
b = 1.4838
s = 0.26
k = 0.2176
d = 0.0183
ι^* = 357.92

The above data set, along with eqs (5.15), (5.23), (5.35), yields the estimated parameters of eq (6.1) which can then be used to solve the model in its positive, programming and option modes.

The Positive Mode

The estimated parameters of the model are given below:

$\alpha(1)$ = 238.65	$\beta(4)$ = –5.6056
$\alpha(2)$ = 238.65	$\gamma(1)$ = 0.000647
$\alpha(3)$ = 0.0269	$\gamma(2)$ = –0.0383
$\alpha(4)$ = 29.40	$\gamma(3)$ = 0.9434
$\beta(1)$ = 75.82	$\gamma(4)$ = 0.0420
$\beta(2)$ = 219.71	$\gamma(5)$ = 0.000647
$\beta(3)$ = 134.72	$\gamma(6)$ = 0.0396

$\gamma(7)$ = 0.2315
$\gamma(8)$ = 0.2315
$\delta(1)$ = 0.0540
$\delta(2)$ = 0.9430
$\delta(4)$ = 0.0686
$\delta(5)$ = 0.4594
$\delta(6)$ = –0.0214

Substituting these values into eq (6.1) yields the estimated forms of the matrices A(0), A(1), B(0), as well as the vector z(0). Solving eq (6.2) for x yields the following positive mode of the integrated system:

$$x = Ax(-1) + Bu + z \qquad (6.3)$$

$$\text{where } A = A(0)^{-1}A(1) \qquad (6.4a)$$
$$B = A(0)^{-1}B(0) \qquad (6.4b)$$
$$z = A(0)^{-1}z(0) \qquad (6.4c)$$

whose estimated form is given by:

$$\begin{bmatrix} \Delta R^* \\ \pi \\ g \\ i \end{bmatrix} = \begin{bmatrix} 0 & 0 & 0 & -12.159 \\ 0 & 0 & 0 & -0.1623 \\ 0 & 0 & 0 & 0.1113 \\ 0 & 0 & 0 & 0.5533 \end{bmatrix} \begin{bmatrix} \Delta R^*(-1) \\ \pi(-1) \\ g(-1) \\ i(-1) \end{bmatrix} +$$
$$\begin{bmatrix} -0.007082 & 97.12439 & 0.73682 \\ 0.000078 & 0.54823 & 0.00289 \\ 0.000005 & -0.01807 & 0.00020 \\ 0.000011 & 0.07457 & 0.00039 \end{bmatrix} \begin{bmatrix} \Delta DC \\ e \\ \Delta F^* \end{bmatrix}$$
$$+ \begin{bmatrix} -8.77698 \\ -0.07820 \\ 0.04142 \\ 0.01377 \end{bmatrix} \qquad (6.5)$$

The *ex-ante* forecasts of the four targets (ΔR^*, π, g and i) for 1998-99 can be obtained by setting: (i) the lagged target variable at its historical level for 1997-98 given above, i e, $i(-1) = 0.11$; and (ii) the three instruments at their predicted levels for 1998-99 given above, i e, $\Delta DC = 1145$, $e = 0.15$ and $\Delta F^* = 6$. This yields: $\Delta R^* = 0.77$, $\pi = 0.0924$, $g = 0.0584$ and $i = 0.1001$, implying a reserve accretion of about \$ 0.8 billion, an inflation rate of about 9.2 per cent, a growth rate of about 5.8 per cent and an (equilibrium) interest rate of about 10.0 per cent. All these forecasts, which are inherently plausible, testify to the robustness and stability of the merged framework and suggest that, despite the misgivings of several Fund and Bank economists, e g, Reinhart (1991), regarding the usefulness of such an approach due to the inherent instability of some of its key parameters, it could provide a robust framework for designing growth-oriented stabilisation policy packages.

In Table 4, which is based upon the estimated form of the matrix $A(0)^{-1}B(0)$ in eq (6.4b), the elements of each column represent the total impact of the concerned exogenous variable, as a result of setting it at its predicted level given above, upon the corresponding target. The sum of the differential impacts of these three policy settings (inclusive of the lagged target variable and the intercept term) provides the overall forecast of the concerned target variable. The results suggest that: (1) domestic credit is a powerful instrument as it has a considerable impact on reserves, inflation and growth; (2) devaluation, although inflationary, has a potential for increasing reserves without causing any considerable contraction in output; and (3) capital inflows are inflationary and their impact on output expansion is insignificant. The results also indicate that a 15 per cent nominal devaluation, by increasing the rate of inflation by 8.2 percentage points, would result in a real devaluation of about 6.8 per cent.

The Programming Mode

The excess of targets (ΔR^*, π, g, i) over instruments (ΔDC, e, ΔF^*) makes it impossible to solve the model in its pure programming mode. However, heuristic guidepost solutions for deriving a 'robust' policy can still be obtained. To do so, we pre-multiply eq (6.3) by its transpose, i e, B', and solve the resultant expression in terms of u obtaining:

$$u = B^*x - z^* \qquad (6.6)$$

$$\text{where } B^* = (B'B)^{-1}B' \qquad (6.7a)$$
$$z^* = (B'B)^{-1}B'[Ax(-1) + z] \qquad (6.7b)$$

which will exist considering that the inverse of B'B exists. However, it needs to be noted that the set of policy response functions constitutes only a 'heuristic' version of the programming mode because although it does prescribe the levels at which the three instruments should be set on the basis of the four desired targets, this policy setting will be unable to attain all the targets simultaneously and there will be a certain amount of deviation between the desired and realised targets. However, the ensuing policy prescription will be the most "robust" one inasmuch as the sum of squared deviations between the desired values of the four targets and their respective realisations will be minimal, i e, it will correspond in a sense to the least squares estimator of u [Rebonato 1996].

Table 4: Differential Impacts of the Policy Settings

Contribution of:		Impact on:			
		Reserves	Inflation	Growth	Interest Rate
Domestic	(ΔDc = 1145)	–8.11	0.0893	0.0057	0.0126
Exchange rate	(e = 0.15)	14.57	0.0822	–0.0027	0.0112
Capital inflows	(ΔF^* = 6.0)	4.42	0.0173	0.0012	0.0023
Lagged interest rate	(i_{-1} = 0.11)	–1.34	–0.0782	0.0122	0.0137
Exogenous factors		–8.78	–0.0179	0.0414	0.0609
Total		0.77	0.0924	0.0584	0.1001

Using the estimated matrices A, B and z specified in eq (6.5) above, and setting $i(-1)=0.11$, we obtain the following estimated form of eq (6.6).

$$\begin{bmatrix} \Delta DC \\ e \\ \Delta F^* \end{bmatrix} = \begin{bmatrix} -37.16 & 7426.9 & 28220.7 & 636.37 \\ 0 & 1.1871 & -17.701 & 0.3934 \\ 1 & -85.089 & 2604.52 & -45.7381 \end{bmatrix} \begin{bmatrix} \Delta R^* \\ \pi \\ g \\ i \end{bmatrix} - \begin{bmatrix} 1224.5 \\ -1.0346 \\ 134.42 \end{bmatrix} \quad (6.8)$$

Thus, it is seen that domestic credit is inversely related to reserves and positively related to both inflation and growth; exchange rate depreciation is positively related to inflation and interest rates and negatively to growth; while capital flows are positively related to reserves and growth and negatively to inflation and interest rates.[2] The programming mode implies that target values for reserve accumulation (ΔR^*), the inflation rate (π), the growth rate (g) and the interest rate (i) must initially be assigned in order to obtain the corresponding instrument values. Setting $\Delta R^* = 2.0$ (i e, a reserve accumulation of \$ 2 billion), $\pi = 0.09$ (i e, a 9 per cent inflation rate), $g = 0.06$ (i e, a 6 per cent growth rate) and $i = 0.10$ (i e, an equilibrium interest rate of 10 per cent), we solve eq (6.8) above obtaining: $\Delta DC = 1126$, $e = 0.1187$ and $\Delta F = 11.6$. This implies that domestic credit expansion would have to be constrained to about Rs 1,126 billion, the nominal exchange rate should be allowed to depreciate by just about 11.9 per cent above its average level of Rs 37.2 per US dollar in 1997-98 and capital inflows should be of the order of around \$ 12 billion. Apart from the fact that the current exchange rate depreciation has already overshot this optimal level, the above policy package calls for an inordinately high level of capital inflows which, apart from being improbable in the current economic milieu, could be highly dest-abilising. We thus have to treat the above instrument setting as unfeasible and therefore revert to the option mode of the system.

VII
Designing Alternative Stabilisation Policy Options

In order to obtain greater insights into the trade-offs implicit in designing growth-oriented stabilisation policy, we expand eq (6.8) above obtaining:

$$\Delta DC = -37.16\Delta R^* + 7426.9\pi + 28220.7\,g + 636.37\,i - 1224.5 \quad (7.1a)$$

$$e = 1.1871\,\pi - 17.701\,g + 0.3934\,i + 1.0346 \quad (7.1b)$$

$$\Delta F^* = 1.0\,\Delta R^* - 85.089\,\pi + 2604.52\,g - 45.7381\,i - 134.42 \quad (7.1c)$$

Based upon the results of the previous section, the objective now is to design a feasible growth-oriented stabilisation package and obtain guidelines regarding the spectrum of alternative 'robust' policy options which can attain the desired objectives.

As such, we continue to target a 6 per cent growth rate and a 9 per cent inflation rate. Therefore, setting $g=0.06$ and $\pi=0.09$ in eq (7.1) above yields:

$$\Delta DC = -37.16\,\Delta R^* + 636.37\,i + 1137.12 \quad (7.2a)$$

$$e = 0.3934\,i + 0.0794 \quad (7.2b)$$

$$\Delta F^* = 1.0\,\Delta R^* - 45.7381\,i + 14.19 \quad (7.2c)$$

The above system which is now used to determine 'robust' policy options comprises a set of three equations in five unknowns which implies that any two of them (except the combination e and i) can be targeted exogenously and this would yield solutions for the remaining three. However, an exchange rate alignment perspective would suggest that the exchange rate ought to be determined endogenously and, as such, we shall not target it a priori. Therefore, with two degrees of freedom and with only four variables to choose from, this implies that we have six alternative stabilisation options. The results of these alternative simulation exercises are provided in Table 5.

The results clearly indicate that there exists a wide spectrum of alternative, and more importantly, feasible policy options which are capable of attaining the desired objectives (of a 6 per cent growth rate and a 9 per cent inflation rate). Option # 1 is essentially a base run scenario which indicates that if the interest rate and reserve accretion remain in the neighbourhood of their current projections, then the nominal exchange rate must be allowed to depreciate by about 12.3 per cent. In such a case, the desired level of credit expansion would also be unaltered *vis-a-vis* its initial projection although the optimal level of capital inflows could turn out to be very high.

Although Options # 2 and # 3 both target zero reserve accretion ($\Delta R^* = 0$), they provide an interesting study in contrasts. While the amount of credit expansion is almost identical in both the options, the former calls for a much higher level of capital inflows (\$ 9.6 billion), a reduction in the interest rate (to 9.9 per cent) and a lower level of exchange rate depreciation; while the latter invokes a lower level of capital inflows (\$ 8 billion), an increase in the interest rate (to 13.6 per cent) and a higher rate of exchange rate depreciation. However, going by the recent trends in exchange rate movements, it seems that the latter option is the more feasible one.

Option # 4 is essentially a 'cold turkey' strategy as it invokes the classic Fund prescription of a strong dose of credit restraint and devaluation, coupled to a substantial increase in the interest rate. While reserve accretion is certainly impressive at almost \$ 1.9 billion, it would require additional capital inflows to the extent of \$ 10.1 billion (almost on the lines of an IMF 'bail-out').

Options # 5 and # 6 are the most interesting ones because they are basically 'gradualist' strategies that are diametrically opposed to the Fund prescription set out above. Both advocate strong credit *expansion*, a milder dose of devaluation, and a moderate increase in the interest rate. More importantly, they do not need

Table 5: Stabilisation Policy Options for Macro-Economic Adjustment

Option	ΔDC	e	ΔF*	ΔR*	i
#1	1170	0.1227 (Rs 42.34/\$)	10.2	1*	0.11*
#2	1200*	0.1183 (Rs 42.01/\$)	9.6	0*	0.0988
#3	1223	0.1327 (Rs 43.08/\$)	8.0*	0*	0.1355
#4	1150*	0.1305 (Rs 42.92/\$)	10.1	1.9	0.13*
#5	1275*	0.1205 (Rs 42.18/\$)	7.5*	-1.9	0.1045
#6	1314	0.1266 (Rs 42.63/\$)	6.0*	-2.7	0.12*

Notes: (1) In each option, the two starred figures are the values fixed exogenously for the concerned variable. The 3-equation system was then solved for the remaining three variables; (2) The figures in parentheses below each estimate of e indicate the average corresponding exchange rate that must prevail over the second half of 1998-99.

to be financed by large capital inflows although they do entail a drawdown of reserves. The last option, which seems the most feasible one in terms of implementation, broadly suggests that the average exchange rate should be contained at around Rs 42.63 per US $ over the second half of 1998-99, while the interest rate should be increased marginally to around 12 per cent. This would allow the desired growth and inflation targets to be achieved with a much lesser requirement of capital inflows ($ 6 billion), although it would involve a higher-than-projected level of reserve drawdown ($ 2.7 billion).

Thus, it is seen that by integrating the interest rate into the merged framework, the extended model is better suited for analysing alternative stabilisation options as it exploits the underlying complementarity between monetary reform and growth-oriented adjustment programmes. The most important lesson learnt from these exercises is that there exist policy options that, despite being opposed to the conventional thinking on this subject, are feasible and sustainable as they do not involve excessive reliance on foreign borrowings and/or reserve depletion.

VIII
Conclusions

The attractiveness that characterises the financial programming framework of the Fund and the financial requirements framework of the Bank is that they require little data to work with and are relatively easy to utilise. However, these two models *per se* do not contribute much to an understanding of the complex policy responses that are required to design a stabilisation package that will simultaneously eliminate macro-economic imbalances (in the form of BOP disequilibria and rising inflation) as well as raise the growth rate.

The composite model presented here represents a synthesis in technical terms of these two sub-models and not only carries forward their appealing simplicity and their potential flexibility, but is also better equipped to investigate issues involving growth-oriented adjustment. More importantly, the merged model endogenously eliminates unattainable growth paths, and therefore the planner does have the option of modifying the instruments in order to achieve the BOP and inflation targets consistent with the remaining set of feasible growth trajectories. So, if used flexibly and with the necessary care, the merged model is capable of drawing attention to the possible trade-offs which policy-makers have to face while designing stabilisation growth-oriented programmes. However, it needs to be noted that while the merged model does yield very useful insights into the basic relationships between the BOP, inflation and interest rates that would need to be taken into account while designing programmes in which growth is an explicit objective, the present version represents only a natural first step in the search for an integrated framework within which growth-oriented adjustment issues can be analysed.

All this highlights the need for sound financial policies to back growth-oriented adjustment programmes in order to create an atmosphere of confidence in the future of an economy and its management. Without such confidence, savings will tend to be transferred abroad and private investors will either postpone or cancel domestic capital investments. One of the unfortunate consequences of weak confidence in macro-economic management is that domestic interest rates would have to be raised to very high levels to avoid capital flight but, at such levels, borrowings for productive purposes could well be discouraged leading to a dampening of economic activity.

Therefore, changes in interest rates and other financial reforms must be co-ordinated with the policy actions that are part of the stabilisation programme. The experiences of a number of developing countries with financial reform seem to suggest that this co-ordination is especially vital during the early phases of the adjustment programme. In particular, certain combinations of policies can be potentially destabilising for a financial system undergoing major structural change. For example, if a large fiscal deficit is being financed through excessive market borrowings by the government, then there could be limited scope for the successful implementation of a sound interest rate policy or a financial reform programme. The rise in interest rates that would be associated with such a fiscal deficit could potentially lead to destabilising changes in the flow of funds in and out of the financial system as well as between different types of financial institutions or instruments. The inability to control fiscal deficits is often considered to be one of the most important factors that contribute to the failure of growth-oriented adjustment programmes and, as such, until the fiscal accounts can be brought under control, major financial reforms may have to be deferred.

While all these potential pitfalls make the process of monetary reform and financial liberalisation a rather hazardous one, they should not be viewed as a rationale for maintaining high negative yields on domestic financial instruments and an inefficient financial system. While growth-oriented adjustment programmes often warrant a sharp increase in interest rates, very often such an excessive increase could affect investment and create problems with capital flows. In such a situation, it may be more appropriate to adjust interest rates gradually as the new stabilisation and financial reform policies take hold. For this to be successful, however, the public would have to believe that the authorities were committed to carrying out the reforms based on realistic objectives. If such a perception is established, then the maintenance of positive yields on domestic financial instruments would strengthen domestic savings and the financial system.

With many developing countries irrevocably committed to liberalising their domestic financial systems, the twin issues of interest rate and exchange rate determination, in general, and the manner in which they can be expected to behave in the changed environment and respond to domestic and foreign influences, in particular, is becoming increasingly important. Only when the behaviour of interest rates and exchange rates is well understood will it be possible to predict their effects on key macro-economic variables such as BOP, inflation, savings, investment and, above all, economic growth. After all, to affect these variables is the real purpose for which all liberalisation policies have to be designed.

Notes

[This is a revised version of the paper presented by the author at the workshop on 'Future Directions for the Indian Economy. Macro-economic Issues Relating to Finance and Capital', held at the Gokhale Institute of Politics and Economic, Pune, from December 4-6, 1998.]

1 All the seven parameters of the model, as well as the five coefficients of the interest rate equation, were estimated using the Kalman filter time-varying parameter model [Rao and Singh 1995] and based upon annual time series data on the Indian economy over the period 1985-86 to 1997-98 The following structural equations were invoked during the estimation process: (i) Eq (5 10) was used to estimate v; (ii) Eq (5.19) was used to estimate m and b; (iii) Eq (5.26) was used to estimate k and d; (iv) Eq (5.27) was used to estimate s and i; and (v) Eq (5.48) was used to estimate δ(0), δ(1), δ(2), δ(4), and δ(5) which, using eq (5.51), yielded δ(6).

2 That there is no relationship between ΔR^* and e is an important corollary of such a merger and needs to be explained . To do so, assume, for simplicity, that the imports function is given by: $Z = Z(-1) + m\Delta Y - b\Delta E$. Substituting

this into the external sector financial constraint given by. $\Delta R = (X-Z) + \Delta F$, and rewriting it in terms of ΔE yields:

$$\Delta E = (1/b)\Delta R - (1/b)X + (1/b)Z(-1) + (m/b)\Delta Y - (1/b)\Delta F \quad (a)$$

Eq (a) implies that to increase ΔR by one unit, the increase in ΔE should be $(1/b)$. Eq (a) is valid for the programming mode provided all its explanatory variables are either target or exogenous variables, and the latter set of variables are not affected by exchange rate changes. In the merged model, as ΔF is an instrument, it can no longer remain on the right-hand-side of eq (a) and must be replaced appropriately. To do so, substitute the investment constraint given by: $I=S+\Delta F-\Delta R$, into an output equation given simplistically by, $\Delta Y = kI$, and rewrite the resulting equation in terms of ΔF to yield:

$$\Delta F = (1/k)\Delta Y - S + \Delta R \quad (b)$$

Eq (b) implies that to increase ΔR by one unit, ΔF should be increased by one unit. However, from eq (a), this implies that the decrease in ΔE should be $(1/b)$. Therefore, the requisite change in the exchange rate is seen to be zero, as the devaluation in the exchange rate required to increase ΔR by one unit is exactly offset by the revaluation that will be required as a result of the consequent increase in ΔF. The basic stabilisation implication of the result is that, once the target inflation and growth rates are specified, the desired change in the exchange rate is uniquely determined, and any subsequent changes in desired reserves will have to be met either by changes in domestic credit or foreign borrowings.

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Inflation Targeting

Issues and Relevance for India

R Kannan

Some developed countries have practised inflation targeting as a part of monetary policy during the 1990s. Price stability is needed to create a stable and non-inflationary environment for resource allocation. Stable price expectations are necessary for long-term contracts. Successful inflation targeting requires credibility of the enforcing agency, usually the government and the central bank. Credibility in turn requires that the target be chosen carefully. This article reviews inflation targeting experience so far and analyses the issues related to it. It argues for developing an inflation model for India. Inflation targeting in India should wait until financial sector reform agenda is accomplished.

INFLATION targeting is a product of the 1990s. New Zealand and Canada were the first to adopt an explicit target path for prices followed by the UK, Finland, Israel, Spain and Sweden. In the literature of monetary economics, inflation targeting has an important position. The gain in popularity of inflation targets can perhaps best be seen as a step in the evolution of monetary policy regimes in countries which have battled to achieve or at least to maintain monetary and price stability over a period of time. A number of countries have in the past pursued monetary aggregate targets or exchange rate targets, or both, as an intermediary goal along the path to medium-term inflationary control. The experience with such intermediate targets had its disappointments. The announcement of a specific goal for inflation is nothing but an attempt to anchor inflationary expectation and develop a measure of confidence in the conduct of monetary policy in much the same way that monetary and exchange rate objectives were designed to do.

It is important to mention that unlike the adoption of monetary targets in the mid-1970s, inflation targeting practices had not been much influenced by academic discussion. Indeed, while inflation targeting is obviously a manifestation of the principle of long-run monetary neutrality, there is a paucity of academic literature on operating monetary policy with explicit inflation targets, compared with discussion on monetary targets, nominal GDP targets and exchange rate targets. Since in many circumstances the announcement of inflation targets is a relatively recent phenomenon, no country has yet operated with an inflation target through an entire business cycle.

The intellectual roots of inflation targets are much older. Alfred Marshall (1887), Knut Wicksell (1898) and Irving Fisher (1922) were early advocates of a price level target for monetary policy. The operationalisation of price stability target in actual monetary policy arrangement has been subject to periodic changes starting from the classical gold standard through the monetarist idea of targeting of the money supply to the recent direct commitments by central banks to low and stable inflation. The gold standard was, by its very nature, a system designed to maintain the value of money in the long term, since the value of gold was expected to remain stable. Gold was, therefore, accepted as a standard unit of account and the national currencies were pegged to it. The eventual abandonment of gold as the universal measure of value in the 1930s happened in a situation where the value of gold *vis-a-vis* most commodities was rising sharply and hence maintenance of the gold standard seemed to lead to serious deflation in many countries. After the second world war, the influence of Keynesianism de-emphasised the idea of price stability as the main goal of monetary policy. The most recent development which has taken place in the 1990s is the idea of targeting inflation directly which has become increasingly attractive worldwide and a number of central banks have actually made a formal commitment to low inflation.

The basic reason for adopting price stability as the primary objects of monetary policy is to create a stable and non-inflationary environment for resource allocation and to stabilise price expectations which is an essential requirement for long-term contracts. In general, price stability refers to a situation where money maintains its purchasing power hence the first inclination would be to a future price level target as the goal that is most consistent with the concept of price stability. However, with the passage of time, most economies and policy-makers opt for inflation targeting as the goal of monetary policy to emphasise the stabilisation of the rate of inflation permanently at a low level. We must be very clear that there are fundamental theoretical and practical differences between price level targeting and inflation targeting. A low inflation target does not guarantee price stability in the long term. Even an annual rate of inflation of 2 per cent means that prices will double in 36 years, i e, within one generation.

Inflation targeting has its origin from two important issues. The first is the problem of credibility. Explicit commitments have been made in order that the private sector will be convinced to the authorities' good faith and make a low inflation equilibrium sustainable and attainable at minimum cost. The second problem is known as 'policy engineering' which refers to the task of bringing about price stability. After episodes of exchange rate targeting and monetary targeting, the inflation target embodies the wisdom of Milton Friedman (1975) who demonstrated that it was optimal to target the final variable directly rather than via an intermediate target. Inflation targets are therefore a mixture of the solution to the problem of how best to convince economic agents regarding the authorities' good intentions and to the problem of how best to carry them out.

Inflation targeting has found widespread acceptance in recent years. But the empirical case supporting them remained rather flimsy. It is useful therefore to compare the performance of an inflation target against that of other potential monetary policy strategies. In general, economic literature suggests three strategies, viz, inflation and GDP targeting, nominal GDP targeting and monetary targeting [Bryant et al 1993]. Inflation and GDP targeting is simply a hybrid inflation targeting which places a non-zero weight on the stabilisation of output relative to the trend. Such a rule would be consistent for those authorities having an optimal rate of inflation which guards against the significant real costs associated with too

rapid disinflation. Nominal GDP targeting could be considered a slightly more restrictive variation of this rule which places equal weight on the stabilisation of inflation and output relative to their target value. The experiences of countries indicate that if supply shocks are more prevalent, nominal GDP targeting is the better monetary policy response. Monetary targeting was given up by many countries consequent to the financial liberalisation process and higher volatility found in money velocity.

This article is organised in four sections. Section I gives a brief account of inflation targeting practices in various countries and the issues associated with these practices are discussed in Section II. Factors contributing to its relevance for India are discussed in Section III.

I
Experience of Other Countries

An Inflation target was first adopted in New Zealand in 1990 under policy targets agreement between the governor of the Reserve Bank of New Zealand and the minister of finance. Canada followed this approach in 1991, Israel in December 1991, UK in October 1992, Sweden and Finland in February-March 1993, Mexico in September 1994 and Spain in November 1994. Although Australia has had a quantitative inflation objective, it is very difficult to precisely date its introduction. Some of the industrial countries, which continue to adhere to intermediate targets, have recently sought to clarify their price stability objectives numericaly. For example, within Europe, Germany, France, Italy and Portugal have all specified in quantitative terms their medium-term inflation goal. Each of these countries also had a recent history of relatively high inflation and had previously adopted intermediate targets such as monetary or exchange rate targets. After switching to inflation targets, their inflationary rates fell sharply and in some cases more rapidly than what the authorities had expected (Table 1, Graph).

Although practices adopted by these countries are not identical, one could see a number of commonalities in terms of target, transparency and credibility measures (Table 2). The targets are typically defined in terms of an inflation range about 2 to 3 percentage points wide depending upon the degree of openness and the strength of monetary policy transmission channels, etc. Given the lags in the transmission process, monetary policy is tightened if inflation is projected to overshoot the target and eased if inflation is projected to fall below the target. To increase transparency and to help focus in containing inflationary expectations, and also to enhance the effectiveness of monetary policy, many inflation targeting countries release official inflation forecasts several times a year. Attempt is also made to boost the credibility of the target by explicitly announcing the accountability of the central bank executives.

The adoption of inflationary targeting in Australia in the second half of 1993 was the result of a joint commitment by the central bank and the government. Australia's inflation objective was initially adopted by the Reserve Bank unilaterally with the government endorsing this policy later. The timeframe over which the underlined inflation is to be measured and the acceptable extent and duration of deviations from the central bank tendency are not precisely specified due to stochastic behaviour of prices and the difficulties involved in forecasting inflation. Hence 2 to 3 per cent should be interpreted as a broad central tendency for inflation thick point rather than as a narrow target band. While 2 to 3 per cent objective was not openly announced, it is increasingly found in the Reserve Bank policy statement and other public utterances over the past couple of years.

In the case of Spain, the adoption of inflation targeting was partly institutional and partly technical. On the institutional front, the Bank of Spain attained autonomy in June 1994 and price stability objective was put in place and the Bank of Spain was given statutory responsibility to pursue it. Hence, the new monetary policies framework aimed to improve transparency in the setting up of monetary policy and to bolster credibility. At a technical level, the adoption of inflation target coincided with the abandonment of broad money aggregate due to increasing incidence of unpredictable broad money velocity shift, consequent to financial liberalisation and the entry of Peseta into the exchange rate mechanism in 1989. There had been periods in which it was difficult for the central bank to reconcile the desirable course of monetary aggregates with the Peseta's positions within the established bands.

The introduction of stabilisation programme in Israel in 1985 paved the way towards some orderliness in the conduct of monetary policy. Since December 1991, crawling exchange peg rate was in operation. An announcement of the explicit inflation target coincided with the move to a crawling peg. Indeed the inflation target helped dictate the course of exchange rate crawl. Inflation target in Israel was first announced at the end of 1991 as a part of transition from a horizontal exchange rate band to a crawling band regime. The rate of crawl under the new system was determined by the gap between the inflation target and inflation among Israel's main trading partners and this rate of crawl had been lowered progressively, both as a means of and as a reflection of inflation control in Israel However, while the inflation target was initially linked to the prevailing exchange rate system, its importance for monetary policy has grown substantially. Since 1994, the target has been formally endorsed by the cabinet. The asymmetry of the exchange rate distribution during the period of crawling band is the result of dual objective of exchange rate policy, viz. to control inflation so that sensitivity to afford deviation from the mid point rate was particularly great. In a small open econc.ny such as Israel, exchange rate place a crucial role as the principal anchor for policy

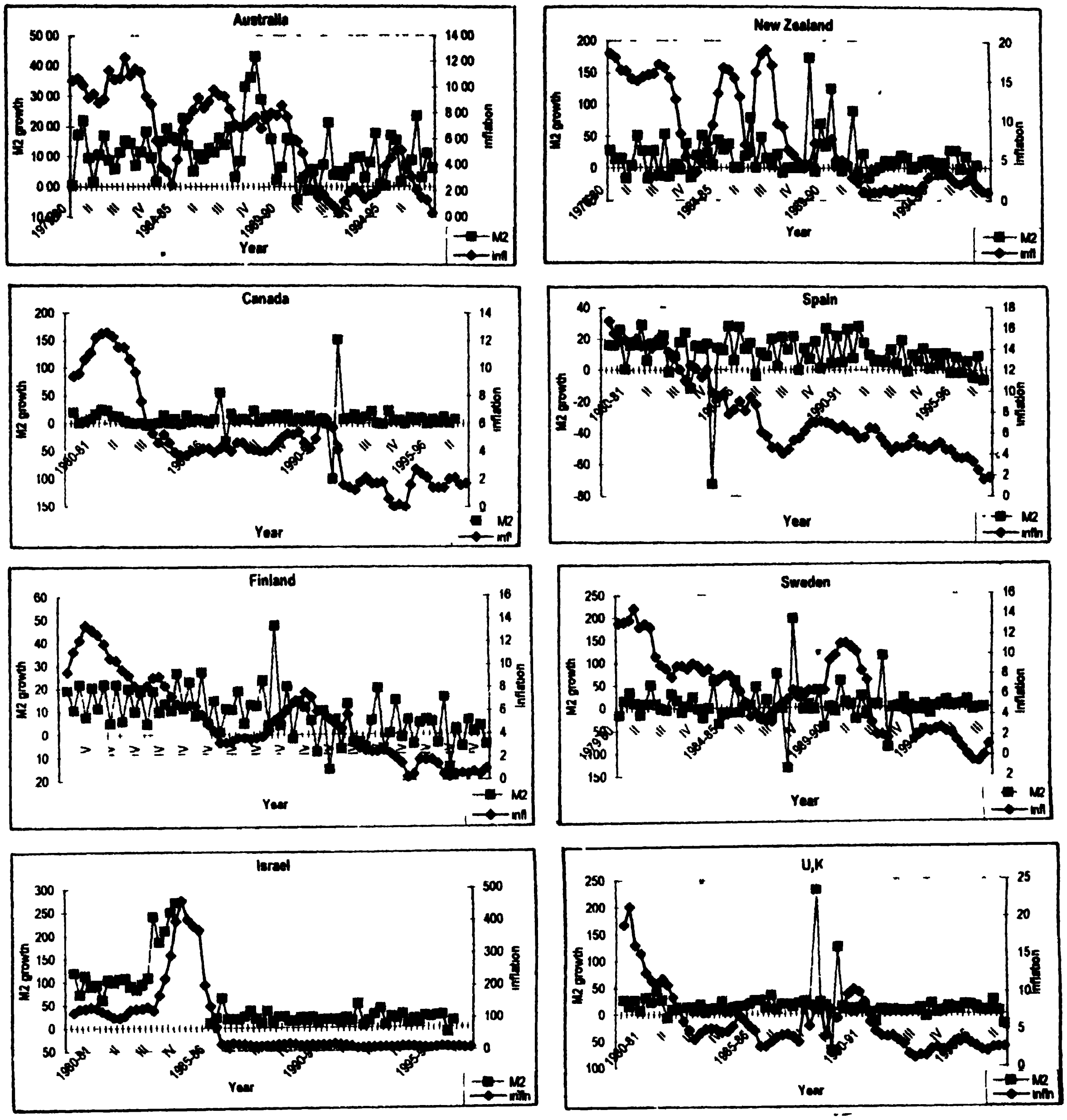
In the case of UK, having tried both monetary and exchange rate targets since the 1970s, inflation target was the last in a long line of monetary regimes. The credibility of the authorities was no doubt enhanced by the publication of the Bank of England's quarterly inflation report, which is the bank's independent assessment of inflationary trends in the country. The publication of the minutes of the meeting between the chancellor and the

TABLE 1: AVERAGE INFLATION RATE IN SELECTED ECONOMIES

Year/Country	1981-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97
Australia	8.1	3.3	1.0	1.8	1.9	4.7	2.6	0.8
Canada	6.0	5.6	1.5	1.8	0.0	2.2	1.6	1.8
Finland	6.8	4.7	2.6	2.1	1.1	1.0	0.6	0.8
Israel	181.8* (79.9+)	19.0	12.2	10.9	12.3	10.1	11.3	9.3
New Zealand	10.5	2.6	1.0	1.3	1.8	3.8	2.3	1.3
Spain	9.4	5.9	5.9	4.6	4.9	4.7	3.6	2.0
Sweden	7.6	9.3	2.3	4.6	2.2	2.5	0.5	0.2
UK	6.6	5.9	3.8	1.6	2.5	3.4	2.5	2.7

Notes: 1* For the period 1981-84.
2+ For the period 1985-90.
3 Figures for 1996-97 are up to the third quarter.

GRAPH M_2 GROWTH AND INFLATION, 1979-80 TO 1996-97



governor, *inter alia* are some of the steps initiated to enhance policy credibility, transparency and accountability The UK has chosen to target the rate of increase of retail prices excluding mortgaged interest payments Two factors weighed heavily in the choice of price index in the design of inflation target: first the definition of inflation under the target should reflect an assessment of where the costs of inflation lie, it should marry with the established theory; second, any credibility gains to be had by making the target public will depend on which index the public feels to be important.

In the case of Sweden, the Riskbank was forced to abandon the fixed rate exchange regime in 1992 and decided to let the Krona float. In a fixed exchange rate regime with price stability as the ultimate objective, the exchange rate functioned as an intermediate goal of monetary policy. The central monetary policy indicator is then cross border flow of foreign currency and the primary concern was then to ensure that the level of interest rates is such that the currency flows are in balance. With a floating exchange rate, monetary policy adopts some other intermediate target as an anchor, and hence inflation targeting became the anchor to monetary policy to contain inflation expectations.

The Bank of Finland has so far been the only central bank that has announced an explicit inflationary target in terms of a single figure. A single figure was specified since it was considered that it would provide a better guide for the formation of inflation expectations, given the country's inflation history and high inflation expectations due to substantial depreciation of Markka earlier. It was not claimed that the target should be met exactly every month. Because of temporary shocks, lags in the transmission policy and uncertainty about the policy deviations, temporary deviations by both sides were allowed The Bank of Finland defined the target in terms of underlined rate of inflation which is calculated from the consumer price index by eliminating the effects of government subsidies, indirect taxes, house prices and mortgage interest payments. These measures were chosen with a view to limiting a number of potential disturbances, which would also avoid any explanation, by the authorities at a later stage.

II
Aspects of Inflation Target Practice

The experience of various countries working with inflation target has given rise to some important issues, which are discussed below.

Choice of Index

There are different measures of inflation such as WPI, CPI, GDP deflator, etc. On theoretical grounds, the index most appropriate for serving as a target is that of GDP prices. But many economists have argued in favour of CPI, because CPI is more familiar, better understood by individuals, the method by which it is calculated is more precise and it is published more often [Friedman 1994]. However, CPI contains items which are subjected to relatively frequent supply shocks, causing it to fluctuate widely. For this reason, many central banks tend to prefer the 'underlying inflation rate', i e, CPI excluding items whose prices vary sharply. For example, in Canada, this applies to food and energy, in Britain it is the mortgage rate and in Finland it is apartment prices, the mortgage rate, taxes and subsidies. In the case of New Zealand, exogenous terms of trade shocks are excluded. In Israel, the monthly CPI fluctuates widely because of the movements in the prices of housing, fruits and vegetables and government controlled goods. However, Israel has chosen CPI as the inflation target for two important reasons: (i) the group of items whose prices fluctuate widely constitute 40 per cent of CPI so that deducting them would impair the credibility of the target, and (ii) indexation arrangements and CPI index contracts are widespread in Israel and many financial assets are CPI indexed. Hence the prevalence of agreements indexed to the overall CPI is not sufficient to justify including volatile components in the target definition. Indexing financial instruments to the CPI does not meet all the hedging needs of all consumers. While indexation made it easier to synchronise prices, price insertion still existed as a result of nominal rigidities. Hence simply announcing a low inflation target was not sufficient to reduce actual inflation. Moreover indexation caused shocks to the price level to be translated into a new level of inflation. However, the economic literature suggests that indexation is a double-edged sword; it made price stability easier to maintain following favourable inflation shocks but made it harder following adverse price shocks.

Alchian and Klein (1973) and later Goodhart (1994) have argued that there is no good reason why we should exclude the price of future goods and services from the index. If we think consumers maximise utility intertemporarily, we should set policy with respect to an index that measures the relative price of current and future goods and services. Hence they argued that lack of indexation in the economy is not a reflection of the cost of indexation *per se*.

However, with reference to GNP deflator, it is important to mention that while this does include the price of recently produced assets, it does not include the price of existing assets. Another consideration – one that suggests GDP deflation as an alternative – is that inflation targets are currently defined over indices that aggregate the prices of final goods. But what about transactions involving commodities, raw materials or intermediate goods or labour? In principle, the prices that should be targeted are those where the cost of inflation is felt more acutely, where longer term nominal contracts predominate. There is, therefore, an argument for including intermediate prices in the target measures of the price level.

Speed of Approach to Target

It is important to distinguish the achievement of inflation target in the medium term and in the short term. Usually these targets vary depending upon the period we consider. For example, in the UK, the target has been 1 to 4 per cent in the short to medium term 1 to 2.5 per cent in the medium term and less than 2 per cent in the long term. This left some flexibility about how rapidly the target should be approached. But there is a risk there. If the present rate of inflation is very close to medium term objective, then, the inflation target would create some confusion in the minds of the public.

Level of Target

There is no uniform opinion even among policy-makers regarding the tolerable level of inflation. Furthermore, a question which often arises is: should the target be zero inflation or a small positive rate of inflation. Experience of various countries does suggest a need to target a positive inflation rate. In the case of the UK, RPIX inflation of 2 per cent or less is regarded as tantamount to price stability. Once Federal chairman Greenspan asked a question, "What rate of inflation is sufficiently low that it does not materially enter business and household financial decisions." This level in general is considered as price stability. Economic literature is also varied in this aspect. Some argue that 0.0 is a unique number – in Milton Friedman's word a Schelling point. Fisher (1994), Summers (1991) and Corden (1994) argue that rigidities in price estimation are sufficient reason to pursue a small single strict inflation rather than an absolute zero. Summers (1991) has argued that a direct zero inflation regime removes the potential for negative real rate of interest which might be appropriate at times to facilitate recovery. Hence Summers argued for a small positive rate of inflation. However, by far the most important fact is that no country has achieved absolute price stability in the past 50 years and even achievement of low positive inflation over long periods has been quite rare, so our knowledge of empirical behaviour of modern economies in the region of zero inflation is scant. The longest period of relatively stable low inflation in recent history occurred in Germany from 1954 to 1971 with an overall inflation of 2.3 per cent with a standard deviation of less than 1 per cent. However, in the last 3 years, inflation in many industrial countries lie in the region of 2-3.5 per cent.

The basic reasons for adopting price stability are to create a stable and non-distortionary environment for resource allocation and to stabilise price expectations which is an essential requirement for long-term nominal wage and price contracts. In countries like India, price stability is the most effective environment to protect the vulnerable section of the population. Some economists argue that a low inflation target does not guarantee price stability in the long run. Even an annual rate of inflation of 2 per cent means that prices will double in 36 years, i e, within one generation. Moreover, it has been pointed out that in case of inflation targeting with random errors, uncertainty about future price level increases with the forecast horizon and hence price level targeting may be preferable [Fisher 1994]. If the target is to be the price level, periods of inflation will have to be matched not by disinflation but by deflation and such deviations are inherently costly. Historically, inflation stability is more common than price level stability, although typically it occurs at low rates of inflation.

While a target of zero inflation has often been suggested, arguments in favour of low positive inflation have also been put forward recently. Moreover it is argued that inflation should be targeted at its current rate because loss of economic output that accompanies a reduction in inflation is greater than any potential benefit [Gordon 1990]. Summers (1991)

suggested that a long-term goal of 2 to 3 per cent inflation is preferable on the grounds that the loss from low positive rate of inflation is likely to be small and that there is no evidence of instability resulting at low rate of inflation. Fisher (1994) suggested a range of 1 to 3 per cent as the optimal rate of inflation because, first, it may be useful for the real rate of interest to be negative; secondly with positive productivity growth, a stable price level would imply declining nominal wages; and thirdly, measures of inflation are biased upwards.

Width of Target Band

The band's width must be sufficient to encompass the impact of shocks to the price level which occur in the interval between setting of policy and its impact on inflation. The limitations to fine-tuning

TABLE 2: INFLATION TARGET PRACTICES IN VARIOUS COUNTRIES

Country	Starting Date	Inflation Target	Caveats	Transparency Measures	Credibility Measures	Time Specific
New Zealand	March 1990	Annual CPI inflation rate (defined as the 4-quarter rate of change) of 0-2 per cent	The underlying inflation measure which is now more widely used, excludes the effects of exogenous shocks, for example, increases in indirect taxes, mortgage interest rates, and terms-of-trade changes.	Monthly publication of monetary policy statement, quarterly release of inflation projection, and frequent press statements by Reserve Bank officials	The Reserve Bank Act of 1989 defined price stability as the sole objective of monetary policy. Policy target agreements are negotiated between the Reserve Bank and the government, subject to a highly public government override. The Reserve Bank Act was part of a decade-long series of wide-ranging public sector reforms which culminated in the enactment of the Fiscal Responsibility Act in 1994	Yes (updated annually)
Canada	February 1991	12-month CPI inflation rate of 1-3 per cent	In practice, the Bank of Canada excludes food and energy prices from the CPI. Other caveats include indirect tax increases and terms-of-trade stocks (for example, a large increase in oil prices)	Regular progress monitoring, particularly in the Bank of Canada's Annual Report, but official inflation forecasts are not made public	Joint announcement of the inflation target by the minister of finance and the governor of the Bank of Canada. There were no major changes to the BOC's mandate, it remains responsible for the operation of monetary policy, subject to a highly public government override.	Yes
UK	October 1992	Underlying inflation rate of 1-4 per cent, to reach the bottom of this range by 1997, 2.5 per cent or less thereafter	Underlying inflation is measured by the annual rate of change of the retail price index, excluding mortgage interest payments (RPIX)	Publication of quarterly 'inflation report' by the Bank of England (including its inflation outlook) and monthly monetary report and minutes of meeting between the chancellor and the governor by the treasury.	There were no major institutional changes – the government still controls short term interest rates, although the Bank of England may determine the timing of interest rate changes	No
Sweden	January 1993	Annual rate of CPI inflation of 2 per cent from 1995, within a range of 1 per cent	None	Publication of inflation reports three times a year, but reports lack explicit inflation forecasts.	There is no legislated price stability goal, in fact, the Riksbank can change the target at any time	No
Finland	February 1993	CPI inflation rate to be stabilised permanently at 2 per cent by end-1995.	In practice, an underlying inflation measure is used which excludes transitory effects of indirect taxes, government subsidies, house prices and mortgage interest payments from CPI	Publication of twice-yearly monetary policy reports, and a quarterly inflation report. Occasional publication of inflation forecasts	The inflation target was perceived as unrealistic and inappropriate, given the rising unemployment, and government endorsement was late. No accompanying institutional changes were proposed, but the Bank of Finland has called for 'broad social commitment' to the target	No
Australia	1993	Underlying inflation rate of 2-3 per cent on average over the course of the economic cycle.	The underlying inflation measure excludes identifiable extraneous factors, for example, the effects of mortgage interest rate changes.	Quarterly release of inflation figures, but official inflation forecasts are not made public.	There were no major accompanying institutional changes	No medium term
Israel	1991	CPI, 8-15 per cent for 1995 (updated annually).	Good controlled prices and energy prices.			Yes
Spain	1997	Below 3 per cent	Mortgage interest payments			Yes

have to be recognised here. If the target is not defined in terms of underlying inflation, allowance might be made for variation in the target measure around the desired underlying level. Finally, a wider band is needed if the policy-makers plan to dampen the effect of supply shocks on output. However, there is a danger here that this would damage the credibility of the authorities' commitment to price stability and raise the suspicion that the true target is the upper boundary of the announced target zone. In choosing the band width, there is a trade-off between losing credibility because the target is missed and losing credibility because the target is so widened it provides little discipline for monetary policy.

Countries which have adopted an inflation target have preferred a 2 to 3 per cent band to a specific point. Although Israel chose a specific point for most of the period recently, deviation from it led policy-makers to switch to a 3 per cent band in 1995.

Hence it is important to note that setting a specific point for the inflation target cannot be credible. At the same time there is a danger that public will ascribe credibility only to the upper end of the band so that it should be relatively narrow. The following aspects are important in determining the width of the band: (i) The volatility of inflation depends on its level so that the width of the band should be set as a function of this. This means that with the reduction of inflation, the width of the band should be reduced. This is very important for countries experiencing high inflation. (ii) There is a substitution between width of the band and the choice of the relative index. Excluding volatile components from the target index, as is done in many countries, makes it possible to set a narrow band.

One interesting question is whether specifying only an upper limit of the inflation target, as was done in Spain, was enough to guide policy-makers. Spain had chosen an upper limit for the inflation target which was consistent with Spain's convergence programme. Setting a lower limit was not credible, given the starting point of inflation.

Some economists argue that the inflation target should be defined in terms of relatively wide fluctuation range even for countries close to price stability. Since the credibility of an anti-inflationary policy has already been achieved in these countries, expectations have also been adjusted to low levels of inflation. Even though there have been periods with relatively high average inflation and inflation variability, the credibility of monetary policy and the overall commitment to low inflation have not diminished in countries close to price stability. However, when the targeted inflation rate is measured by some adjusted price index that excludes the effects of temporary factors disturbing the measurement of true underlying inflation, the need for flexibility is smaller.

Canada, New Zealand, Netherlands, Portugal and Sweden all have inflation target ranges from 2 to 3 per cent points wide. The UK inflation target is in the range of 1 to 4 per cent, Australia in the range of 2 to 3 per cent and described as a thick point rather than a range. Germany, France both operate with upper limit of 2 per cent as their medium-term objective.

The reason for suggesting a range rather than a point is that policy technology is not accurate enough to forecast finely callibrated changes in the price level or inflation rate. According to the Bank of Canada "policy changes cannot be calibrated so precisely as to achieve an exact rate of increase in prices" (*Bank of Canada Review*, Spring 1991, p 13). The Bundesbank have argued that the corridor takes due account of the limits to the technical accuracy attainable in pursuing quantitative monetary targets. But there is a clear cost to targeting ranges rather than points. Ranges minimise the chances of a breach and associated loss of credibility, but the larger the range chosen, the lower the benefit of committing to it, since it still leaves scope for discretionary behaviour.

Difficulties in Forecasting

Any forward looking assessment faces huge uncertainties, since the sources of possible error are many: model uncertainties, true structural shocks, mistakes in projecting exogenous variables, etc. Correspondingly, forecast errors, both official and private sector, are usually large. In this context, we must also address the issue of output price variability trade-off. Any reduction in inflation variability can only be bought at the expense of a considerable heightening of output variability. Empirical results suggest that the prospects of controlling inflation within a small margin of error are not good. Moreover, these inflation uncertainties are not primarily the result of policy-makers' ignorance of how transaction channel works. At least as important are unforecastable shocks to the inflation process whose effects are never be foreseen *ex-ante*, but which may nevertheless dominate the *ex-post* behaviour of inflation.

As in many inflation target countries, baseline projections are then modified in two important ways before influencing monetary policy decision-making. First sensitivity analysis is carried out, i e, projections are re-run based upon different assumed paths for the exogenous variable. This offers a guide to probable uncertainties around baseline projections. Second, 'off-model' information is brought to bear on the projections. For example, the monetary aggregates and policy-makers' judgment are used to inform the projection and the uncertainties surrounding it. The recognition of policy uncertainties in the design of monetary policies is well-known.

But the important point to recognise is that given the lags in monetary policy, the need to form a forward looking inflation assessment is inescapable. We recognise that inflation projections serve as a useful policy tool. Inflation targeting banks have recently sought to identify and quantify these uncertainties explicitly. As a result, mandatory policy in these countries are now set in a probabilistic fashion based upon the distribution of likely inflation outturns rather than just their mean.

Another reason for large *ex-post* errors in some years have been genuine shocks of the kind that no policy regime can easily cope with. Even with good forecast, shocks will occur which push inflation out of the target band *ex-post*, even though the central bank's unbiased expectation was that inflation would be in the centre of the band. In these circumstances, how quickly should the central bank try to return to its preferred inflation range is one of the key operational consideration for policy-makers. This depends to a large extent on the nature of the shock. In general, there are five shocks which can hit the economy: a shock to import prices, a shock to foreign output, a shock to the weather and a shock to the output and inflation not covered by first three channels. In the case where demand rather than supply shocks are prevalent, there may be relatively little real conflict between the price and the output objectives. However, where supply shocks occur, monetary policy can only dampen price stability by adding to short-term output variability so there is a short-term conflict between the two objectives. Even if primacy is given to restoring price stability, decisions could be made about the nature of the adjacent path that has to be sought. In general, the experience of inflation targeting countries clearly demonstrate that the exchange rate channel of monetary policy is well calibrated so that the impact on inflation is slightly less than the impact of policy via output channel over the targeted period.

In establishing any sort of public objective for inflation, a key question is what

variance of inflation can reasonably be expected to be achieved, given what we know about the nature of the shocks to which the economy is typically subject. While major identifiable supply-side shocks may be a sufficient condition for the suspension of a target, the regime needs to be sufficiently robust to handle more minor shocks of various kinds without being recast often, otherwise there will be loss of credibility.

Time Dependence in Inflation Targets

The UK's inflation target was initially time dependent. When inflation targets were first announced in New Zealand, they included a commitment to reach 0 to 2 per cent by 1992, 3 to 5 per cent by December 1990, 1.5 to 3.5 per cent by December 1991. Inflation targets in Spain, Canada and Mexico have all been similarly time dependent. There are reasons for time dependent targets. If the authorities know that monetary policy affects inflation with a lag, it makes sense to set different targets for the initial period from those for the period after the policy change has impacted the economy. Otherwise, the authorities risk losing face when they miss the target in the initial period itself. Another reason is concern about the speed of change in inflation and the consequences of disinflation for short run output levels. As observed by Sargent (1983), errors made in forming expectations about inflation make disinflation costly. Costless disinflations are those that are believed. Ball (1993) identifies episodes of disinflation in OECD countries and finds that fast disinflations imply lower real costs than do slow ones and in his words "cold Turkey is less costly than gradualism". Yats and Chapple (1994) find, using a sample of 43 countries, that this result is not robust.

The next question that we must address is should the inflation targets be defined in terms of annual or monthly or weekly prices. The importance of this is that the more volatile is the inflation rate used in the target, the more frequent and more severe will be the policy changes needed to keep it within target. Alternatively, defining an inflation target over a volatile higher-frequency will need larger ranges or more exemptions to make the target achievable with the same degree of probability as one defined on a lower-frequency inflation rate. The benefit of a high frequency inflation rate target is that it allows for more certainty about the price level from time to time. In general, a 12-month period has been found to be a reasonable one.

Instrument Instability

This refers to the need to swing interest rates and exchange rate around wildly in order to maintain the target. Instrument instability could create or exacerbate a trade-off between inflation and output variance. Instrument instability is a product of interaction between particular types of shocks, the power of policy instruments and the target band width/length. For example, in 1994, capital inflows generated by a positive shift in investors' sentiments towards New Zealand drove local interest rates very low, though the higher exchange rate associated with the capital inflow checked part of the stimulus to inflation, the direct component of the exchange rate effect is of shorter duration than the indirect interest rate effect. Further, the extent of exchange rate appreciation was limited by the need to prevent inflation falling sharply in the short-term. In general, instrument instability would be indicated by an increased variance of the real interest rate and real exchange rate consequent upon adopting a narrow inflation target band.

Credibility or Flexibility

Under inflation targeting, a major problem is that the central bank pre-commits itself to an objective which it cannot fully control. On the one hand, inaccurate knowledge about the structure of the economy, transmission mechanism of monetary policy and policy outcomes make it impossible to hit the target exactly and repeatedly all the time. When the target is missed, public cannot always be certain whether this is due to inflationary monetary policy or due to unforeseen developments beyond the control of policy-makers. On the other hand, the success of an anti-inflationary monetary policy depends on whether economic agents have faith in it. If the announced inflation target is not credible, it may be less effective in reducing the inflation expectation. Lack of commitment on the part of society at large to the anti-inflationary policy requires tighter monetary policy. Consequently adhering to the target may give rise to substantial adverse short-term output effects which could reduce the acceptability of the announced inflation target even further. Hence, the initial period of new policy regime constitutes a stringent test of the commitment and independence of the central bank.

The experience of various countries does not offer a clear and straightforward solution to accomplishing credibility for a low inflation monetary policy while allowing some flexible policy response to unforeseen contingencies and uncertainties. In this context, a discretionary monetary policy can result in an inflation bias without simulating output as indicated by Kydland and Prescott (1997). However, very strictly defined inflation target does not allow any flexibility in monetary policy which may introduce instability into the economy. In the absence of unforeseen supply shocks to the economy, rigid inflation targeting may work well since there is no trade-off with short-term output stabilisation. However, in the event of large adverse shocks from the supply-side, a rigid inflation target may work poorly by exacerbating the negative output effects induced by the shock. Hence some flexibility is preferable to either fully discretionary monetary policy or rigid inflation target [Rogoff 1985]. One solution to the dilemma between credibility and flexibility is the strategy of mixing a simple rule with discretion by announcing an inflation target with an escape clause as in Australia and Finland.

Transparency is another important aspect which lays the foundation for the success of inflation target. Transparency allows private sector agents to monitor and if necessary question the authorities' policy analysis and actions. This, in turn, increases the incentives for the authorities to get their analysis right Among countries with inflation targets, there is a spectrum of positions on policy transparency. For example, New Zealand and UK publish inflation reports and also minutes of regular meetings on monetary policy. The Bank of Spain also started publishing inflation reports and the Bank of Canada has been publishing its monetary policy report since 1995.

The UK was the only country other than New Zealand to publish regularly an inflation forecasting. Canada and Spain were both reviewing the publication issue but did not publish forecasts. However, the Riskbank made qualitative assessment of inflation prospects in its inflation report. Bank of Israel and the Reserve Bank of Australia both issued qualitative statement on the basis of their internal forecasts but did not typically put numbers to these. Finland did not publish any forecast.

III
Inflation Targeting and India

In India, stipulated annual variation in broad money is considered as an intermediate target under the monetary targeting framework and it acts as a domestic anchor for monetary policy with feedback. Though the exchange rate is not treated as an

anchor, exchange rate policy assumes importance considering the degree of our openness (share of exports and imports is at around one-fifth of GDP) and the implications for capital inflows.

In the April 1998 monetary policy a move towards indicators approach was announced, where the RBI takes into account the developments in a host of macroeconomic indicators such as money, credit, prices, etc, in the conduct of its monetary policy. The earlier approach, like the present one, took into account developments in various macro-economic parameters in monetary policy decisions. But now we formally recognise developments in other parameters also which would no doubt enhance monetary policy flexibility.

In spite of financial liberalisation since 1991, the demand for money in India is still a stable function of income and prices. Although interest rates turn out to be an important input in business and household decisions, statistically significant relationship is yet to be established for this variable in money demand function. Market integration is not yet complete although the number of instruments and institutional players in the market have increased considerably in recent period. All these factors strongly suggest that monetary targeting exercise through indicator approach is still an optimal one for India. Perhaps, at the end of the transition period, one may think in terms of putting in place inflation targeting approach. But before we move towards this the following aspects need special consideration.

There is a strong need for developing an inflation model for India and to clearly identify sources of inflation and preferably the share of each factor, at least in the form of some ranges. This analysis could be supplemented by quantification of the impact of various shocks on inflation. More importantly the role of supply shocks in the inflation model is to be duley captured and attempt must be made to delineate their contribution. Furthermore, we must also recognise the part played by administered prices. In this context it is important to quantify the role of government controls on various macro parameters and their impact on the general price level. This would help us to arrive at some idea about the 'underlying inflation'.

With regard to the price indicators to measure inflation, at present we are using WPI for measuring headline inflation which does not properly reflect the significant structural changes that have taken place in the last 15 years as the present WPI has 1981-82 as the base year. There is a need to update this index. Furthermore, consumer price index is also not broad-based, thereby rendering it less useful for policy purposes. In addition, in the last one year, the divergence between WPI and CPI is also increasing, which underlines the need to look into the components of various items which enter into these two price indices. Although GDP deflator is a preferred option, we do not have necessary expertise/information system on a monthly basis. In addition to these factors, we must also develop our expertise in preparing an inflation report and publish it to induce a public debate. This would enhance our credibility in future, once we take a decision to move towards inflation targeting. These actions will teach us the art of inflation forecasting.

In the recent period, one may find a number of references in India regarding interest rate targeting. Economic literature on this topic is scant since one of the basic objectives of financial sector liberalisation is to assign interest rates the central place and also to let the market determine them. Furthermore, inflation targeting is the ultimate objective of monetary policy and interest rates are no doubt intermediate targets. Hence we must examine the utility of interest rate targeting at the first stage and then moving to inflation targeting at a later stage.

Most of the countries, which are adopting explicit inflation targeting, have not passed through one full business cycle with this approach. Moreover, the average annual inflation rate in these countries during 1992-97 works out 2.5 per cent. However, the inflation rates in many economies, both industrial and developing, are at a lower level in the past four years than in the earlier period. It is not clear at this stage whether the lower inflation in countries which adopted the inflation targeting approach can be attributed to the targeting policy. This is not to undermine the positive features of this approach.

In setting the parameters of an inflation target, the choice is always between the benefits of announcing a target appropriate for the objective of price stability at all times and the benefits of credibility conferred by committing to a stringent regime. "If state of nature contracts were feasible and prevalent, we would not need money or monetary policy anyway" [Tobin 1983]. The inflation target is just such a contract and the variation in design across countries reflects the difficulties involved in planning for different 'states of nature' – boom, slump, oil price shocks, velocity shocks and forecasting errors – without losing face.

Regarding the relevance for India, perhaps we have to wait for another four to five years so that the financial sector reform agenda is accomplished, reasonably complemented by real sector reform. In the meantime we should also enhance our capacity not only in inflation forecasting but also in adopting various analytical means of controlling the inflationary expectations in the event of various shocks. In this context the experience of UK and New Zealand is very useful to us.

[Views expressed in the paper are of the author and not of the institution to which he is attached. The author is grateful to Y V Reddy and M J M Rao for their comments and encouragement and also thanks S G Kulkarni for his assistance.]

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Experience with Monetary Targeting in India

Deepak Mohanty
A K Mitra

In India, the monetary targeting exercise produced mixed results. Notwithstanding the reasonable stability of the money demand function, the expansion of money supply emanating from monetisation of government deficit and in a more recent period from capital flows rendered the control of monetary aggregates difficult. With increasing market orientation of the financial structure and international capital flows, it needs to be pondered whether monetary targeting approach could ensure internal and external stability when the avowed objective of policy is to move away from a classical reserve money based monetary policy operating procedure by de-emphasising reserve requirements as active instruments of policy.

THE monetary and credit policy announcements for 1998-99 provided the initial, albeit hesitant, indication that targeting of money supply in the monetary policy operating framework may not necessarily explain the monetary and financial developments in the context of the innovations in the financial sector. Although the monetary and credit policy for the first half of 1998-99 had announced a broad money (M_3) growth target of 15.0-15.5 per cent, it noted that "... the financial innovations that have recently emerged in the economy provide some evidence that the dominant effect on the demand for money in near future need not necessarily be real income, as in the past". In this context, the idea of multiple indicator approach to policy formulation was mooted. The Reserve Bank's Annual Report for 1997-98 was unequivocal on this issue : ".... the Bank has explicitly preferred to adopt a multiple indicator approach wherein movements not only in money supply but also in a host of economic variables will be tracked for policy responses". The mid-term review of monetary and credit policy for 1998-99 announced in October 1998 while expressing serious concern over the strong money supply growth[1] did not refer to any formal money supply target. It is not unusual for a country to change its monetary policy framework, over time, given the changes that occur in its financial structure. Many countries, developed and developing, have traversed this path of monetary targeting to subsequently either completely abandon or deemphasise monetary aggregates in policy formulation.

Against this background, this paper evaluates India's experience with monetary targeting which was adopted in the mid-1980s following the recommendations of the committee to review the working of the monetary system (chairman: Sukhamoy Chakravarty) – popularly known as the Chakravarty Committee. This paper is organised in four sections. Section I gives a brief account of country experiences with monetary targeting which sets the tone for assessment of the monetary targeting experience in India in Section II. Section III provides empirical estimates of demand for money in India, the stability of which forms the core of any strategy of monetary targeting, and Section IV gives the conclusions of the paper.

I
Country Experiences with Monetary Targeting

The breakdown of the Bretton-Woods system of fixed exchange rates which provided a nominal anchor for monetary policy during the 1970s and acceleration in inflation in many developed countries provided the necessary background to the choice of money supply as a nominal anchor. In some developed countries such as the UK, Italy and France, monetary policy was 'accommodative' of the large and growing public sector deficit. It was viewed that monetary targeting would give monetary policy an autonomous character and that it would not be subservient to fiscal compulsions. In this section we focus on the targeting experience of nine developed countries, viz, Australia, Canada, France, Italy, Japan, Switzerland, the UK, the US and Germany (Table 1) and briefly touch upon the current practices in 20 emerging market economies (Table 2).

Experience in Developed Countries

The targeting experience of central banks of developed countries since the mid-1970s reveal broadly three distinct phases : a phase of monetary targeting till the mid-1980s, followed by a period of absence of targeting of any particular variable during the latter half of the 1980s, and to a preponderance of inflation targeting during the 1990s.

The institutional setting for many of these countries was characterised by quantitative targeting and directed credit during the 1970s. But the 1980s brought about significant changes by way of financial deregulation facilitating a shift to indirect instruments of monetary policy. The attendant changes in the institutional structure and financial innovations that followed contributed to a shift or weakening in the established relationship between the original aggregates chosen as the targets and nominal income and/or prices. Financial re-intermediation in some countries and dis-intermediation in others also brought about these changes. For example, re-intermediation resulting from the freeing of banks to set competitive interest rates, the permission to foreign banks and erstwhile non-banking financial institutions (NBFIs) to enter banking sector resulted in the instability in the demand for money in Australia with evidence of long-term structural shifts in its parameters during the mid-1980s. Consequently the Australian authorities abandoned monetary targeting in 1985 and instead assessed the appropriate stance of policy on the basis of a range of indicators.

On the other hand, financial sector reforms in France encouraged development of alternative financial assets and the effects of dis-intermediation was reflected in the sharp lowering of money growth after 1983. Consequently France, which had been targeting M_2 publicly since 1977, moved over to dual targeting of M_2 and M_3 from 1987 and to exclusive targeting of M_3 in 1990. Similarly, financial innovations like better cash management practices of enterprises, daily compounded interest on savings accounts since 1979 and checkable savings deposits since 1981 provoked flight from M_1 – the monetary target for Canada from 1975 leading to its abandonment in 1983. The reform in the government securities market in Italy whereby Banca d'Italia was freed from its obligations to purchase government securities in excess of market demand and

consequent sharp increase in real-interest rates contributed to dis-intermediation with the public increasingly subscribing to government debt directly. In view of the changed relationship between the development of credit and public's holdings of monetary assets in Italy, targeting shifted from total domestic credit to include targets for M_2 and credit to the private sector in 1985.

In the UK, monetary targeting experience was also not a satisfactory one as abolition of exchange controls and re-intermediation, facilitated by competitive interest rates on increasing proportion of deposits included in broad money, disrupted relation between M_3 – the monetary target since July 1976 – and nominal GDP in the early 1980s. Further, the sharp movements in asset prices, by inducing variability in money/income relationship, made successful broad money targeting virtually impossible. Consequently the UK switched to targeting M_0, which also proved increasingly unreliable, particularly since 1989 when the increase in velocity was inexplicable given the level of interest rates.

The US Federal Reserve which followed internal 'tolerance bands' for money and credit since 1970 publicly announced target ranges for monetary aggregates from 1975.[2] The effect of financial deregulation and innovation in the early 1980s such as introduction of negotiable order of withdrawal (NOW) accounts, super-NOW accounts, money market deposit accounts (MMDAs), and general spread of 'deposit sweeping'[3] blurred the distinctions between 'transactions' and 'savings' balances. With the shift in the traditional relationships between money, especially M_1 and nominal GNP, M_1 ceased to be a target since 1987. M_2, M_3 and credit targets recorded mixed achievements and the Fed looked more broadly than just at the financial aggregates in deciding the stance of monetary policy. Consequently, the role of monetary aggregates became more in the nature of indicators than intermediate targets.

The Bank of Japan began to focus internally on monetary growth around 1975 and in 1978 began announcing publicly quarterly 'forecasts' for money supply growth. The Japanese approach was, however, somewhat different from a strict adherence to a pre-determined money growth rule, and more in the nature of forecasts.

Switzerland set a fixed (point target) annual growth rates for the monetary base during 1980s but financial innovations and external sector compulsions contributed to a shift in emphasis to exchange rate targeting during the later part of the 1980s. But monetary targeting resumed in 1990 when the Swiss franc had recovered to its desired level.

As monetary targeting was adversely affected by instability of money demand functions during the 1980s, some of the countries surveyed switched to a strategy of direct inflation targeting. Countries like Australia (1993), Canada (February 1991), Finland (February 1993), New Zealand (March 1990), Spain (summer of 1994), Sweden (January 1993) and the UK (October 1992) switched to inflation targeting during the early 1990s in which explicit inflation targets are publicly announced.

In countries such as Germany, Italy and Switzerland, which have preferred to persevere with monetary targeting the strategy of monetary targeting stands diluted from the classical concept of reserve money based money supply. Recently, the Bundesbank claimed that monetary targeting has become considerably more difficult in the face of increased volatility of short-term money growth.[4] This has prompted the Bundesbank to emphasise the medium-term nature of its monetary policy in 1997-98; it extended the time horizon of its monetary (M_3) targeting to two years (1997 and 1998 at 5 per cent for each year) so as to contain "any potential uncertainties about the orientation of its monetary policy during that period".[5] Italy has continued to announce targets for monetary and credit aggregates during the 1990s but in recent years, the explicit reference to the anti-inflationary objective is an essential element of its present strategy although it does not implement a formal scheme of direct inflation targeting. Of the two intermediate objectives of the French monetary policy, domestic and external, latter is more binding in the short run which has led to a de-emphasis of monetary targeting in the sense that it has been assigned a medium-term objective. Although, Switzerland continues to use the monetary base as its intermediate target it reacts to unexpected developments like

TABLE 1: MONETARY TARGETS AND OUTCOMES: 1975-94

Country 1	Target(s) 2	Period 3	Range/Point Target 4	Years of Success 5	Years of Failure 6
Australia	M3	1977-85	Range : (2)	4	5
Canada	M1	1976-82	Range . (4)	5	2
France	M2	i)1977-83	Point	0	7
		ii)1987-90	Range . (2)	2	2
	M2R	1984-85	Range : (2)	0	2
	M3	i)1986-87	Range : (2)	1	1
		ii)1991-94	Range . (2)	0	4
Italy	TDC	1975-85	Point	0	11
	M2	1985-94	Range :(2-4)	3	7
	CPS	1985-90	Range :(3-4)	0	6
Japan	M2+CDs	1978-94	Point/Range*	6	10
Switzerland @	M1	1975-78	Point	0	4
	M0	1980-94	Point	0	15
UK	M3	1976-86	Range : (4)	4	7
	M1	1982-83	Range : (4)	1	1
	PSL2	1982-83	Range : (4)	1	1
	M0	1984-94	Range : (4)	8	3
	M4	1993-94	Range : (6)	2	0
US	M1	1975-86	Range : (2.5-5)	3	9
	M2	1975-94	Range : (2-4)	14	6
	M3	1975-94	Range : (2-4)	8	12
	TDND	1983-94	Range : (3-4)	9	3
Germany +	CBM	1975-87	Point $	0	4
			Range : (2-3)	5	4
	M3	1988-94	Range : (3)	3	4

M2R :M2 residents, TDC: total domestic credit, CD : certificates of deposit, CBM : central bank money, CPS : credit to private sector, PSL2: private sector liquidity 2, TDND : total domestic debt of non-financial sector, CBM: central bank money.

* Japan provided targeting range of 1 percentage point in six years; hitting the targets in all these six years.

@ Switzerland temporarily abandoned monetary targeting in 1979.

\+ Data for 1975-90 pertain to West Germany.

$ 1975-78

Note: Figures in brackets in column 4 give target range (difference between maximum and minimum desired rate of relevant monetary aggregate) in percentage points.

Sources: i) Argy, V et al (1989), 'Monetary Targeting: The International Experience', *Studies in Money and Credit*, Reserve Bank of Australia, October.
ii) *BIS Annual Report*, various issues

strong fluctuations in the exchange rate and in the demand for money.

In the context of the European monetary integration, monetary targeting seems to have been finding some favour. The European Central Bank (ECB), which formally came into existence in June 1998 and will decide monetary policy for the 11 member countries from January 1999, has adopted two policy guides: (i) a monetary target or a 'reference value' and (ii) an inflation target range of 2 per cent or less.

In a majority of industrial economies where financial sector innovations and deregulation fostered integration of financial markets and cross-border flows of capital, the effectiveness of monetary targeting, the use of unremunerated reserves based operating procedure and direct credit controls diminished over time. Initial responses have been either to re-define their monetary aggregates and/or to move from a narrow to a broader definition of monetary aggregate (except for the UK) to accommodate the portfolio shifts. Even then, the monetary targeting experience, not being entirely successful in the sense of hitting the target or the target range (Table 1), these countries have tended to move, broadly since the mid-1980s, more in the direction of market operations and the use of interest rates to achieve monetary control

As far as the ultimate objective of monetary policy is concerned, inflation exhibited a substantial deceleration in most industrial countries (except for Italy and Canada) and the variability of inflation was also lower during the targeting period. It may, however, be noted that the implicit discipline of the fiscal policy, additional discipline of the European Monetary System (EMS) and the absence of any large commodity price shocks in the 1980s also contributed to a favourable environment of working of monetary policy. Hence, while, it may be concluded that monetary targeting coincided with declining inflation in most developed countries, the extent of decline contributed solely by the move over to intermediate targets of monetary aggregates is not very clear.

Practices in Developing Countries

While inflation targeting is regarded as the ultimate objective of monetary policy in the case of industrial countries, the debate on the extent to which price stability should be deemed to be the overriding objective of monetary policy continues in the case of developing countries.[6] While initially, inflation was viewed as endemic in the process of economic growth and a result of structural imbalances, it has become increasingly clear that in any process of growth which is financed by inflationary means, pressures on commodity prices are bound to ensue over time with the consequent deleterious impact on economic growth. Consequently, central banks began to put greater emphasis on price stability and many of them introduced monetary targeting, particularly when it was evident that the relationship between the monetary aggregates, aggregate demand and prices in the case of developing economies is not subject to such violent shifts as was evidenced in developed countries, possibly because of a lower order of financial innovations in the developing countries.

A survey of 20 emerging market economies reveals that increasingly fewer countries now rely exclusively on some form of monetary target. Monetary targeting is practised in Philippines which uses the base money as the main operating target. Indonesia seeks to achieve, since 1983, multiple objectives of monetary policy (growth, employment, inflation and balance of payments) through control of monetary aggregates (M_1 and M_2).[7] Peru sets intermediate targets for base money growth as an intermediate target because it could be more easily controlled by the central bank and because it was closely correlated with inflation. In countries like China and Russia, which have not witnessed substantial financial sector reforms, monetary targeting continues to be useful. M_2 and M_3 are intermediate targets in Venezuela and Malaysia, respectively. Both Brazil and Korea still formulate monetary targets, although they are only indicative and broadly defined given the volatility of money demand in recent years (Table 2).

II
Monetary Targeting in India

Following the recommendations of the Chakravarty Committee, monetary targeting approach was pursued in a formal sense in India since about the middle of the 1980s. Coincidentally enough, adoption of monetary targeting in the mid-1980s was in contrast to its general abandonment in a number of industrial countries. In India, however, the reasonable stability in the demand function for money with respect to a select set of variables,[8] administered interest rate structure and the absence of significant innovations in the financial sector and lack of large cross-border capital flows facilitated the adoption of broad money (M_3) as an intermediate target of monetary policy. The rationale for monetary targeting was espoused by C Rangarajan, former governor of the Reserve Bank as follows:

> Monetary aggregates as intermediate targets are appropriate for two reasons : First, since the money demand function for India has remained reasonably stable, it continues to be helpful in predicting price movements with reasonable accuracy at least over a period of time, say 3 to 5 years. Secondly, the money stock target is relatively well understood by the public at large. With the money supply target, the stance of monetary policy is unambiguously defined and gives a clear signal to market participants.[9]

However, Rangarajan cautions that India's is a 'far cry' from 'mindless monetarism' and that the monetary authority has to continuously monitor a range of aggregates and that the Reserve

Table 2 Principal Intermediate/Operating Target for Monetary Policy

China	M_1 and M_2
India	M_3 (Broad Money)
Hong Kong	Exchange rate against the US dollar
Indonesia	Monthly target range for the monetary base; target range for the real effective exchange rate
Korea	M_2 and MCT (M_2+CDs+Money in trust)
Malaysia	Inter-bank interest rate, M_3 is intermediate target
Singapore	Exchange rate against a basket of currencies
Thailand	Money market liquidity; inter-bank lending rate; exchange rate
Argentina	Exchange rate against the dollar
Brazil	Four monetary aggregates: the monetary base, M_1 and two broader aggregates
Chile	Short-term interest rate (consistent with an annual inflation target)
Columbia	Annual target range for the exchange rate against the US dollar; interest rate range)
Mexico	Net domestic credit; monetary base
Peru	Base money (consistent with an annual inflation target)
Philippines	Base money
Venezuela	M_2
Hungary	Pre-announced crawling peg supported by interest rate objective
Israel	Short-term interest rate
Russia	Money supply and money base; exchange rate band
Saudi Arabia	Exchange rate against the US dollar

Source : BIS (1998), 'Transmission of Monetary Policy in Emerging Market Economies', January.

Bank is not bound by a fixed rate of growth of money supply. Monetary targeting in the Indian context required to be much more flexible than that in some of the advanced countries which had a constant money supply growth rule and gave little discretion to the central bank. As the Chakravarty Committee argued, "In a developing country like India, where significant structural changes are sought to be achieved to facilitate the growth process, the mechanical application of a constant money supply growth rule can have no place." Monetary targeting in India took into account various feedbacks. Thus, not only an appropriate growth in money supply is estimated given the expected increase in real output and the acceptable level of price increases,[10] but the feedback of an increase in money supply on output increases through the availability of credit is considered.

The Reserve Bank also recognised that ensuring price stability through monetary targeting would be effective only if simultaneously, fiscal deficit, particularly, expansion of net Reserve Bank credit to the central government, which has accounted for the bulk of the creation of the reserve money (or monetary base) over the years, is contained within a reasonable limit. It was, therefore, clear from the outset that inflation in India was perceived not simply as a monetary phenomenon, but more importantly, a fiscal one.

It may be indicated that in a monetary targeting framework the focus of policy has been on the broad money aggregate (M_3)[11] and variations in the wholesale price index (WPI) is taken as the headline inflation. The setting of monetary targets and the actual achievements are summarised in Table 3. Although monetary targeting was adopted in the mid-1980s, it was not before 1991-92 that monetary targeting achieved its pride of place in formulation of monetary policy.

Pre-Monetary Targeting Period

The setting of monetary policy during the early 1980s, more often than not, used to be in the backdrop of an 'uncomfortably high'[12] overall growth of liquidity (M_3), "very large increase in reserve money" and a higher than desired rise in wholesale prices.[13] In such a milieu the thrust of the credit policy was to ensure credit to the

Table 3: Monetary Targeting – Target versus Achievement

Year	Objective/Target: M_3	GDP (per cent)	Inflation (per cent)	Actual (per cent): M_3	GDP	Inflation
1	2	3	4	5	6	7
1983-84	Containment of the overall liquidity growth to a rate lower than in 1982-83 i e, 16.6 per cent	--	–	18.2	8.3	7.6
1984-85	Growth of overall liquidity and primary money creation to be kept below that in 1983-84 i e, 18.2 per cent	-	Curb inflationary expectations	19.0	3.8	6.0
1985-86	Liquidity growth lower than that in 1984-85	Output growth of the same order as in 1984-85	Avoid resurgence of inflation	16.0 Target achieved	4.1	4.8
1986-87	M_3 growth to be contained below the high annual average level of the previous four years i e, 17.5 per cent	Output growth somewhat higher than in 1985-86	The rate of inflation should continue to be kept under check	18.6	4.3	5.1
1987-88	M_3 growth well below the expansion in 1986-87 i e, 18.6 per cent	5.0	Avoid re-emergence of inflationary pressures	16.0 Target achieved	4.3	10.7
1988-89	M_3 growth to be below the average for the previous three years i e, 16.9 per cent	-	–	17.8	10.6	5.7
1989-90	M_3 growth to be contained at a level lower than the average of the last four years i e, 17.1 per cent	4-5	-	19.4	6.9	9.1
1990-91	To bring about a sharp reduction of M_3 growth by about 4 percentage points over previous year i e, 15.4 per cent	Around 5.0	–	15.1 Target achieved	5.4	12.1
1991-92 (April)	To contain M_3 growth to 14.0[18] per cent	4.0	Max 7.0	19.3	0.8	13.6
1991-92 (October)	To contain M_3 growth to 13.0 per cent	3.0	Max 9.0			
1992-93	11.0 per cent M_3 growth (Max)[19]		8.0	15.7	5.3	7.0
1993-94	Around 12.0 per cent M_3 growth	5.0	Further moderation in inflation rate	18.4	6.2	10.8
1994-95 (April)	14.0-15.0 per cent M_3 growth	5.0	Sharp reduction in inflation rate by about 4 percentage points	22.3	7.8	10.4
1994-95 (October)	16.0 (Max) per cent M_3 growth	5.5				
1995-96	15.5 (Max) per cent M_3 growth	5.5	Around 8.0	13.7 Target achieved	7.2	5.0
1996-97	15.5-16.0 per cent M_3 growth	6.0	6.0	16.2	7.5	6.9
1997-98	15.0-15.5 per cent M_3 growth	6.5-7.0	5.0-6.0	17.6	5.1	5.3

GDP: Gross domestic product at factor cost at 1980-81 prices.
Inflation: Based on wholesale price index.
Sources: 1 Reserve Bank of India, *Annual Report*, various issues
2 Circulars issued by Credit Planning Cell/Monetary Policy Department, Reserve Bank of India.

productive sectors of the economy and assist in the fuller utilisation of the available capacities "without providing any support to the revival of inflationary expectations."[14] The major instrument of policy was the cash reserve ratio (CRR). But care needed to be taken so that the general liquidity tightening measures did not "hinder the seasonal flow of credit for supporting the utilisation of productive potential of the economy, and in particular the needs of the priority sector."[15] In case 'some banks' had "transient difficulties in meeting enhanced CRR" such banks were provided "discretionary refinance for short periods to enable them to undertake a smooth adjustment to the higher CRR."[16] The Reserve Bank also provided refinance to smoothen temporary mismatches between sources and uses of funds.[17]

The Reserve Bank announced its credit policy twice during a fiscal year and used to have periodic credit budget meetings with the commercial banks. Operationally, "since the growth of scheduled commercial banks" deposits is inherently difficult to forecast[20] the Reserve Bank used as a working estimate a targeted growth in scheduled commercial banks' deposits, distributed evenly between the two halves of the financial year and advised banks to plan their operations accordingly. It indicated to the major banks 'broad guidelines' for deposit growth and credit deployment in the credit budget discussions "after taking into account an assessment of the macro-economic aggregates".[21]

The Reserve Bank often expressed concern about the link between fiscal deficit and excess liquidity creation. This concern was also reflected in the Chakravarty Committee report which prompted the government to widen the definition of budget deficit so as to "better reflect the monetisation of the budgetary deficit".[22] The other major recommendation accepted by the government related to the introduction of monetary targeting. It was hoped that the acceptance of the wider concept of budget deficit and the introduction of monetary targets would result in greater co-ordination between monetary and fiscal policies. The Reserve Bank, however, in accordance with the Committee's report, recognised that "the interrelationships among output, money and prices are subject to complex lags" and that it was "difficult to set out the precise operations of these lags."[23] It, therefore, noted that the "link between money, output and prices cannot be viewed exclusively within a narrow time frame of a year"[24] although "the basic underlying inter-relationships nevertheless hold good over a period of time".

Monetary Targeting Period

Despite the formal acceptance of monetary targeting, it took a few more years to operationalise the monetary targeting framework. No specific monetary target was set during 1985-90 except for fixing a ceiling linked to the average growth of broad money (M_3) in the previous year(s). The rationale for fixing a monetary ceiling over this period was the continued overhang of excess liquidity prompted by the sharp increase in primary money creation and the continuing pressures on prices.[25] Hence, credit budgeting continued to be an important vehicle for moderating the pace of monetary expansion and ensuring that "adequate credit is made available for normal seasonal requirements, particularly for sectors where there is a step-up in industrial output". Further, credit policy 'as a short-term instrument' was kept under "continuing review and operated flexibly to ensure that it remains supportive of the twin objectives of growth and price stability".[26]

The stance of the credit policy continued to be by and large contractionary as overall liquidity expanded far in excess of what was considered necessary to support productive activity. The most important impediment to the introduction of monetary targeting was the fact that the Reserve Bank had no control over its credit to the central government which accounted for the major chunk in the creation of reserve money. The Reserve Bank could at best set limits on the secondary expansion through such instruments as changes in the cash reserve ratio (CRR) along with statutory liquidity ratio (SLR) and selective credit controls. In fact, the statutory ceiling on CRR having been reached in 1988-89, a statutory ceiling of an incremental non-food credit deposit ratio of 60 per cent was stipulated and the cost of refinance was linked to the credit expansion of a bank.[27] The Reserve Bank also varied the administered interest rates – deposit and lending rates – taking into account the liquidity situation and inflation expectations.

During the mid-1980s, the money market and government securities market were at their infancy and hence, indirect policy instruments were ineffective to influence liquidity. Although the Chakravarty Committee and the Working Group on Money Markets (1987) had emphasised on development of a proper institutional framework to facilitate active monetary policy operations, it was only since the early 1990s that significant steps were initiated to widen and deepen the financial markets.

Monetary targeting was actively pursued during 1990-98. Interestingly, the target ceiling for M_3 growth was gradually reduced from about 15 per cent in 1990-91 to 11 per cent in 1992-93 and then raised progressively to 15.5-16.0 per cent in 1996-97; the rise reflected the increase in the expected rate of real GDP growth. However, the explicit use of the term 'monetary target' in monetary policy formulation first finds mention in the Bank's Annual Report 1991-92: "The key macro-economic assumptions underlying the monetary targets for 1991-92[28] were a real GDP growth of 3 to 3.5 per cent, an inflation rate of not more than 9 per cent, and a significant slowdown in M_3 expansion to about 13 per cent"[29] However, the actual M_3 expansion at 19.3 per cent was wide of the target, attributable to the domestic expansion of primary liquidity and the larger-than-projected foreign exchange accruals.

Monetary targeting for 1992-93 was based on the reduction of the monetised deficit (net RBI credit to the centre) which was "consistent with the government's declared objective of reducing the gross fiscal deficit from 6.5 per cent of GDP in 1991-92 to 5.0 per cent in 1992-93"

Table 4: Money Demand Equations
(Estimation Period: 1952-53 - 1997-98)

Equation	lgdpr	$\bar{R}^2$	DW	SE	RMSPE (per cent)@
1	2	3	4	5	6
OLS regression	1.58* (50.70)	0.98	0.48	0.115	5.21
OLS corrected for autocorrelation	1.55* (17.83)	0.99	2.04	0.076	3.47
Maximum likelihood with MA(3) error term	1.57* (31.03)	0.99	1.77	0.076	3.26
Co-integrating vector (Johansen estimation)	1.1404	–	–	–	2.05

* Significant at 1 per cent level.
Figures in parentheses indicate t statistics.
SE: Standard error of regression
lgdpr Logarithm of gross domestic product at factor cost at constant (1980-81) prices.
@ Forecast period 1993-94 to 1997-98
RMSPE Root mean sum of squares predictive errors

Moreover, since it was agreed that the "monetised deficit should be moderated throughout the year and not merely at the end of the year", the Reserve Bank considered it to be 'possible to bring monetary expansion (M_3) from 18.5 per cent in 1991-92 to less than 11 per cent in 1992-93"[30] which would contain inflation without undermining the revival of economic activity and boost exports in order to alleviate the problem of the external payments deficit.

The year 1992-93 was a landmark in that there was a concerted effort to move from direct to indirect instruments of monetary control and to develop an adequate institutional framework to facilitate an active secondary market in government securities. With the auction process generating market related – if not market determined, rates of interest, government borrowing ceased to be a tax on the banking system. The Reserve Bank, however, drew a note of caution: "If the borrowing requirement is excessive, under a market determined interest rate system, the rate of interest would move up to such high levels that the entire programme of reform becomes counter-productive as there could emerge a vicious spiral of rising interest rates and growing fiscal imbalances."[31] The Reserve Bank also announced its intention to reduce statutory liquidity ratio (SLR) and cash reserve ratio (CRR). This resulted in a decline of pre-emption of resources from the banking system from a peak of 63 per cent in early 1992 to 35 per cent in the following six years. There was a concomitant deregulation of interest rates. The objective of collapsing the multiple slabs of lending rates to two slabs was realised in October 1997 and term deposit rates were completely freed.

During 1993-94 and 1994-95, the growth in M_3 was wide-off the target.[32] In 1995-96, it was deemed possible to contain M_3 growth within the projected increase (of 15.5 per cent). A successful monetary targeting was, unfortunately followed by the "sharp criticism that growth (had) been impeded by a restrictive monetary policy which gave primacy to price stability".[33] The Reserve Bank defended its monetary policy stance by arguing that while monetary policy ensured a substantial decline in inflation in 1995-96, real GDP recorded a high growth of over 7 per cent.

In all the four years of success in monetary targeting, the rate of expansion in broad money was lower than that of the trend rate of growth of 17.3 per cent since 1970-71. The years of success were immediately preceded by years of sharp increases in money supply (Table 3). The first three years (1985-86, 1987-88 and 1990-91) of success in monetary targeting were accompanied by a lower rate of expansion in both net Reserve Bank credit to the central government and net foreign exchange assets of the banking sector. Inspite of higher expansion of net Reserve Bank credit to the central government, the fourth year (1995-96) of success was rendered possible due to substantially lower expansion in net foreign exchange assets of the banking sector.

Monetary targeting was most firmly espoused in the Bank's *Annual Reports* of *1995-96* and *1996-97* wherein the procedure followed in monetary targeting was also discussed. The *Annual Report 1996-97*, however, also noted that the context of monetary policy has undergone a distinct change in recent years with the opening up of the economy and with monetary policy initiatives increasingly directed towards maintaining a stable financial environment in relation to price, interest rate and exchange rate. The *Annual Report 1997-98* took this argument one step further by pointing to the experience of the developed countries where, following the financial innovations and sharp reductions in transaction costs, variations in quantity aggregates could no longer explain appropriately the variations in aggregate demand and prices which prompted these economies to target instead the rate variables like short-term interest rates or the exchange rate, and sometimes even more directly, the inflation rate.

III
Stability of Demand for Money

Monetary targeting is premised on a stable demand function for money. Under this approach, the demand for money is estimated given a real GDP target and inflation objective under the assumption that income velocity of money is stable. Another important consideration is the controllability of the monetary aggregate which is the object of policy. In the case of targeting of broad money which represents the liabilities of depository institutions, money supply could be endogenous. Although the central bank influences the money creating activities of these depository institutions in a fractional reserve system, this is not the same as the central bank being able to target money stock exogenously.

In the Indian context a number of empirical studies on the demand for money have demonstrated that it is stable (Vasudevan (1975), Jadhav (1994) and Arif (1996)). Several methods are available to assess stability. The Working Group on

TABLE 5: TEST OF CO-INTEGRATION@

	Trace Test	Maximum Eigen Value	AIC	SBC	HQC
r = 1	32.27*	36.07*	154.23	146.92	151.49
r = 2	3.80	3.80	154.13	144.99	150.71

* Significant at the 5 per cent level
@ Co-integration of lbmr and lgdpr with restricted intercept and no trends, order of var = 2
r Number of co-integrating vector
AIC .Akaike Information Criterion.
SBC :Schwarz Bayesian Criterion.
HQC :Hannan - Quinn Criterion.

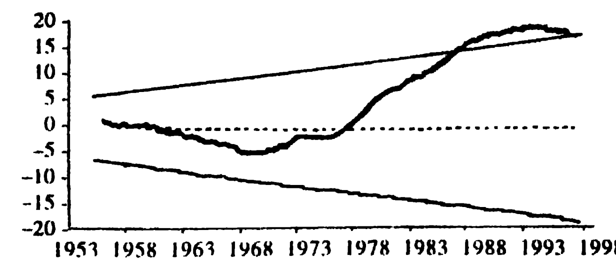
TABLE 6 MONEY, OUTPUT AND PRICES

(in Rs crore)

Year (Ending March)	BM	WPI	GDPR
1	2	3	4
1953	2121	15.7	45117
1954	2200	16.4	47863
1955	2379	15.3	49859
1956	2683	14.5	51173
1957	2869	16.5	54086
1958	3163	17	53432
1959	3476	17.7	57487
1960	3883	18.4	58745
1961	3964	19.6	62904
1962	4244	19.6	64856
1963	4553	20.4	66228
1964	5037	21.6	69581
1965	5498	24	74858
1966	6134	25.8	72122
1967	6817	29.4	72856
1968	7460	32.8	78785
1969	8306	32.5	80841
1970	9337	33.7	86109
1971	11020	35.5	90426
1972	12693	37.5	91339
1973	15013	41.3	91048
1974	17624	49.7	95192
1975	19549	62.2	96297
1976	22480	61.5	104968
1977	27781	62.8	106280
1978	32906	66	114219
1979	40112	66	120504
1980	47226	77.4	114236
1981	55774	91.5	122427
1982	62752	100	129889
1983	73184	104.9	133915
1984	86525	112.9	144965
1985	102933	120.1	150433
1986	119394	125.4	156566
1987	141632	132.7	163271
1988	164275	143.6	170322
1989	193493	154.3	188461
1990	230950	165.7	201453
1991	265828	182.7	212253
1992	317049	207.8	213983
1993	366825	228.7	225240
1994	434407	247.8	239145
1995	531426	274.7	257700
1996	604007	295.8	276132
1997	701848	314.6	296845
1998	825389	329.7	311887

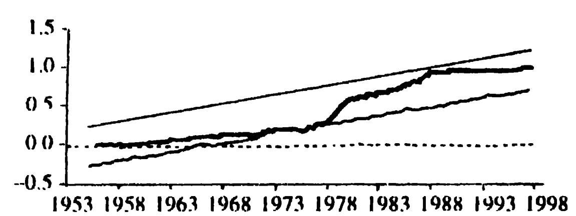
BM .Nominal Broad Money (M_3).
WPI :Wholesale Price Index (Base 1981-82=100); average of weeks.
GDPR :Gross Domestic Product at factor cost at 1980-81 prices.

CHART 1.1: PLOT OF CUMULATIVE SUM OF RECURSIVE RESIDUALS



The straight lines represent critical bounds at 5 per cent significance level

CHART 1.2. PLOT OF CUMULATIVE SUM OF SQUARES RECURSIVE RESIDUALS



The straight lines represent critical bounds at 5 per cent significance level

CHART 1.3: COEF OF LGDPR AND ITS 2 SE BANDS BASED ON RECURSIVE OL

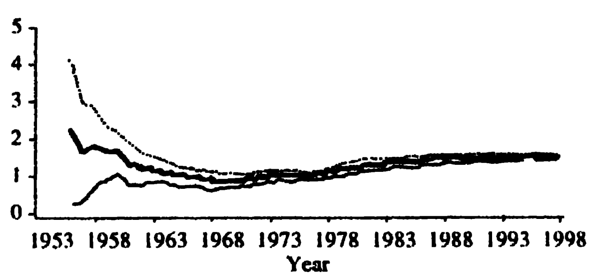


CHART 1.4: COEFFICIENT OF LGDPR AND ITS TWO* SE BANDS BASED ON ROLLING OLS

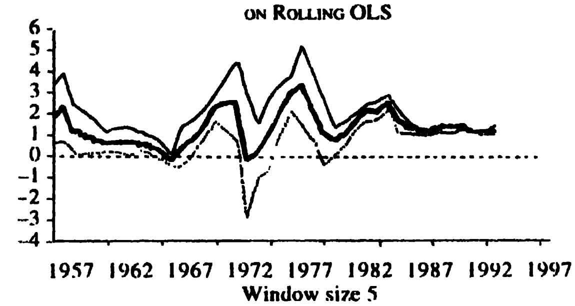
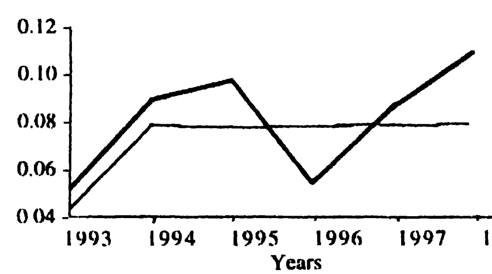


CHART 1.5: MULTIVARIATE DYNAMIC FORESTS FOR THE CHANGE IN LBMR



Money Supply (Chairman: Y V Reddy) which submitted its report in June 1998 had used recursive estimation procedures of cumulative sum (CUSUM) and cumulative sum of the squares (CUSUMSQ) to assess the stability of the money demand function for India. These procedures are particularly useful in detecting structural changes. While the Working Group did not find evidence of parameter instability for the period 1970-71 to 1996-97 it recognised that the predictive stability of the money demand equation is equally important for its use for policy purposes. This is an issue which was earlier addressed by the most influential paper on money demand in India by C Rangarajan. In his presidential address at the 71st annual conference of the Indian Economic Association in December 1988, Rangarajan demonstrated that money demand equations provide reasonable predictions of average changes in prices over a horizon of four-five years, though not necessarily in a year to year context. In his D T Lakdawala Memorial Lecture in February 1994, Rangarajan revisited the same issue and came to similar conclusions. In essence the concern was with the long-run stability of the money demand function in terms of its most proximate determinant i,e,real GDP,[34] rather than its short-term behaviour.

In what follows we consider a fairly long time series to examine the long-term stability of the money demand equation. The Ordinary Least Square (OLS) estimation of logarithm of broad money in real terms (lbm) on logarithm of real GDP (lgdp) on the basis of annual data for a 46-year period from 1952-53 to 1997-98 yielded an income elasticity of demand for money of 1.58. While the equation gave a very good fit, expectedly it had high standard error and residual serial correlation. When corrected for first order residual serial correlation (Cochran-Orcutt method), the income elasticity at 1.55 did not change significantly. The maximum likelihood estimation with 3-year moving average error term (which in a way mimics the methodology suggested by Rangarajan) did not change the income elasticity significantly (Table 4).[35]

As regards the question of stability while CUSUM, recursive least square (RLSQ) and rolling least square with a window size of five years showed parameter shifts, these tests did not point to parameter instability. However, CUSUMSQ test pointed to deviation from the conventional 5 per cent critical bonds starting from mid-1980s coinciding with the period marking the monetary targeting exercise in India (Charts 1.1 to 1.4).

The mixed evidence on parameter stability notwithstanding, the above estimation would not stand the scrutiny c time series analysts keeping in view th fact that many macro-economic time seric are not stationary in their levels and mor adequately represented by first difference: In such, a scenario the long-run equilibriur relationship is best represented by cc integrating vector(s). The Augmente Dickey-Fuller (ADF) tests on the chose variables, viz, lbmr and lgdpr revealed th: these variables are I(1) on level form an I(0) in first difference Test of cc integration following the Johansen metho revealed the presence of a single cc integrating vector between real broa money and real GDP pointing to a long run equilibrium relationship (Table 5). Th estimated long-run co-integrating vectc with regard to real GDP worked out to 1.1 (Table 4). While the co-integrating vectc cannot be interpreted as the long-ru demand for money,[36] it is consistent wit the estimates of long run income elasticit estimated from the OLS equations.

Keeping in view the long-run equilibriur relationship we examined the predictiv stability. In this regard we chose the yea

1993-94 as the benchmark[37] to generate out of sample forecast from the variants of money demand equations discussed above. It could be seen that the predictive performance of the equations as measured by the root mean sum of squares predictive error (RMSPE) gradually improved from that in the OLS regression to the co-integrating equation (Table 4). The RMSPE improved from 5.21 per cent in[38] OLS regression to 3.26 per cent with 3-year moving average error term and to 2.05 per cent in the co-integrating equation. Even though the co-integrating equation sharply improved the predictive performance it could capture only one of the turning points during 1993-94 to 1997-98 (Chart 1.5).

IV
Conclusions

The international experiences with regard to monetary targeting suggest that the developed countries pursued such an approach to monetary policy formulation for about a decade and half with varying degrees of success. If success were to be judged by the number of years in which the monetary targets were achieved, there were more failures. In terms of the overall objective of monetary policy, the inflation rate in these countries came down during the targeting period. This achievement, however, could not be entirely attributed to monetary targeting exercise. Even those few developed countries which still persevere with monetary targets, tend to follow a more eclectic approach to monetary policy formulation. As regards developing countries, increasingly less number of countries pursue a purely monetary targeting approach. The move away from the monetary targeting approach was largely prompted by market oriented financial sector reforms and international capital flows.

In India, the monetary targeting exercise produced a mixed result during the 13 years (1985-98) when some form of monetary target was pursued. During this period, it is only on 4 occasions that the monetary targets could actually be achieved. The average growth of broad money, however, increased from 17.1 per cent during the decade and half (1970-85) preceding the monetary targeting period to 17.4 per cent in the monetary targeting period (1985-98). Furthermore, there was no perceptible improvement in the inflation rate which fell from an average of 8.8 per cent to 8.1 per cent during the same period, although the variability of inflation came down significantly. It may, however, be noted that the 1970s had witnessed two bouts of high inflation emanating from oil price shocks. As regards, output performance, the average real GDP increased sharply by 5.8 per cent per annum in the targeting period as against 4.0 per cent in the earlier period.

In view of the persistence of excess liquidity, containment of overall liquidity (measured in terms of M_3 growth) was the overriding objective of policy. The monetary targets, therefore, were initially framed in terms of setting of indicative ceilings on the basis of observed growth in the previous years. Interestingly, such ceilings preceded the Chakravarty Committee and continued till 1991-92 when M_3 targets were set independently. In the 1990s the monetary targets were set either as point targets or in a narrow range implying a higher probability of missing such targets. It may, however, be noted that a wider range puts a question mark on credibility, nullifying the very objective of targeting.

The pressures on monetary expansion in the earlier part of targeting exercise emanated from monetisation of fiscal deficit and later on from capital inflows. During the period 1985-1992, net Reserve Bank credit to the central government accounted for over 96 per cent of monetary base which was reduced to about 65 per cent in the subsequent period during 1993-1998 with corresponding increase in net foreign exchange assets of the Reserve Bank. In the event of a conflict between the liquidity impact of capital inflows and adherence to monetary target, the former seems to have taken precedence: "Since the inflows of foreign exchange were of overriding priority, measures of sterilising the inflow of these resources were not undertaken lest the measures should dampen such inflows."[39] In the absence of restraint over capital inflows, the success of monetary targeting became contingent on fiscal adjustment. Although the practice of automatic monetisation of the budgetary deficit was done away with effective April 1997, it is yet premature to judge its overall impact on liquidity in view of the Reserve Bank's support to the central government's market borrowing programme.

Thus, notwithstanding the reasonable stability of the money demand function, the expansion of money supply emanating from monetisation of government deficit and in more recent period from capital flows rendered the control of monetary aggregates more difficult. Moreover, the stability tests on the empirical estimates of money demand equation are sensitive not only to the choice of the time period but also the empirical methods. While a stable money demand function could be a necessary condition for monetary targeting, it may not always be an adequate guide to the choice of an optimal monetary policy framework. In an administered interest rate and exchange rate regime, the quantum channels dominate in transmission of monetary policy impulses. However, external and financial sector reforms enhance the sensitiveness of quantity variables to their market-determined price, i e, interest rates and exchange rate.

With increasing market orientation of the financial structure and international capital flows monetary policy would necessarily have to respond to developments on a continuous basis. In such a milieu, it needs to be pondered whether monetary targeting approach could ensure internal and external stability when the avowed objective of policy is to move away from a classical reserve money based monetary policy operating procedure by, de-emphasising reserve requirements as active instruments of policy. In India, the switch-over to a new monetary operating framework based on multi-indicator approach from the one predominantly based on targeting money supply would obviously give rise to lot of debate. In this context, Vasudevan (1997 and 1998), provides illuminating discussion on dilemma faced in monetary policy making in a transitional setting. It would, therefore, be more meaningful if the debate looks beyond the issue of stability of the money demand function in judging an appropriate framework of monetary policy for India.

Notes

[The authors are grateful to A Vasudevan for his valuable suggestions The views expressed in this paper are those of authors and not of the institution to which they belong]

1 On a year-on-year basis, M_3 growth (October 9, 1998 over October 10, 1997) was 20 6 per cent (and excluding Resurgent India Bond (RIB) receipts, 18 3 per cent) as against 16.8 per cent in the comparable period of the previous year.

2 The Fed opted for multiple targets, with ranges for growth in M_1, M_2 and M_3, as well as a measure of credit, being announced However, M_1 was the focus of attention

3 Automatic, often daily, transfers between transactions and investment accounts

4 Bruggemann, Imke, and Dieter, Nautz (1997), 'Money Growth Volatility and the Demand for Money in Germany: Friedman's Volatility Hypothesis Revisited', Weltwirtschaftliches-Archiv, 133(3), pages 523-37.

5 Deutsche Bundesbank Monthly Report (1997), Strategy of monetary targeting in 1997, January.

6 C Rangarajan (1997), "Dimensions of Monetary Policy", The Ananthararnakrishnan Memorial Lecture delivered at Chennai,

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7 Achjar Iljas, (1998), 'The transmission mechanism of monetary policy in Indonesia', in *The Transmission of Monetary Policy in Emerging Market Economies*, BIS p 105-114

8 C Rangarajan (1997), cited in f n 6.

9 Ibid, p 433

10 The latter was 4 per cent in the case of the Chakravarty Committee (1985) and around 6 per cent in the Reserve Bank's policy announcements

11 Includes currency with the public, aggregate deposits with commercial and co-operative banks and 'other' deposits with the Reserve Bank

12 *RBI Annual Report 1983-84*, p 11. Circular issued by Credit Planning Cell, April 6, 1985.

13 The inflation rate (on an average basis) during the 1980s averaged 8.0 per cent

14 Reserve Bank's Credit Policy Statement of October 1982.

15 Circular issued by Credit Planning Cell, January 27 1984

16 Ibid

17 Circular issued by Credit Planning Cell, March 8, 1985.

18 M_3 target was made consistent with the containment of gross fiscal deficit to 6.5 per cent of GDP in 1991 92

19 M_3 target was made consistent with the containment of gross fiscal deficit to 5.0 per cent of GDP in 1992-93.

20 Circular issued by Credit Planning Cell, April 6, 1985

21 Circular issued by Credit Planning Cell, September 3, 1984

22 *RBI Annual Report 1984-85*, p 15

23 *RBI Annual Report 1986-87*, p 70

24 *RBI Annual Report 1987-88*, p 75.

25 Credit Planning Cell Circular dated March 27, 1989

26 Credit Planning Cell Circular dated October 25, 1985

27 RBI Annual Report 1989-90, p 33.

28 These targets were revisions of the earlier targets set in April; the rationale for revision is given in Credit Planning Cell circular of October 8, 1991 "Given the strong inflationary pressures in the economy and the anticipated slowdown in the real GDP growth rate, there is an imperative need to bring about a significant slow-down in the real GDP growth rate, there remaining period of 1991-92"

29 The Credit Planning Cell circular of October 8, 1991, however, is not explicit about whether M_3 growth postulated was a target or a projection. It goes thus: "keeping in view the actual inflationary trends and since the underlying objective of policy is to bring about a sharp reduction in the inflation rate, it is desirable to work towards a lower M_3 expansion of about 13 per cent in 1991-92"

30 *RBI Annual Report 1991-92*, p 8. The rate of expansion of M_3 was, however, substantially higher at 19.3 per cent.

31 *RBI Annual Report 1992-93*, p 115.

32 The M_3 growth figure for 1994-95 is distorted by 27 reporting fortnights – two of which depicting year-end bulges of banking aggregates (March 18-April 1, 1994 and March 17-31, 1995) The inevitability of the distortion may not have been taken into account while formulating monetary target for 1994-95.

33 *RBI Annual Report 1995-96*, p 92.

34 In estimation of reduced form money demand equations, apart from a scale variable such as GDP, interest rates denoting opportunity cost are used as important arguments. In the Indian context there is no satisfactory measure of opportunity cost in view of long periods of tight interest rate regulations. Moreover, in the Indian context various measures of interest rates are not found to be statistically very significant.

35 The data set is given in Table 6.

36 Dickey, D A, et al

37 The choice of the year 1993-94 was conditioned by the fact that it marks the beginning of significant reforms in the external, financial and monetary sectors.

38 *RBI Annual Report 1991-92*, p 7.

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On Interest Rate Policies

Romar Correa

The context in which the subject is treated is the different institutional arrangements that are being contemplated worldwide. Institutions, for the present purpose, are defined as outcomes of the strategic interaction between members of the private sector and the monetary authorities.

In a generalisation of the credit transmission approach we consider an aggregate monetary economy consisting of three agents: a firm, a bank and a household. The relationship between pairs of them is characterised by bilateral private information. Bonds, loans and savings are contracts in the level of output, the rate of interest on bonds, loans and the deposit rate. It is shown that the contracts have a common functional form.

This renders the model dynamically unstable. We consider the potentially stabilising role of monetary policy in two cases. In the first, the monetary authority operates the discount window. Formally, we introduce a parameter in the objective functions of the private sector agents. In the second, the central bank enters as a player with the interest rate on government paper as a strategy.

We examine the relative merits of the two policy regimes.

I
Introduction and Motivation

THERE is an animated ongoing discussion about optimal monetary regimes. These monetary arrangements concern different relationships that might exist between private sector agents and Central Banks. The various positions can be regarded as points along a spectrum. At one extreme are advocates of frameworks like those of 'free banking' that would assign a role to Central Banks that is minimal tending to zero. The basis for such arguments must ultimately rest on the desirable properties of an Arrow-Debreu model of the economy. Since the focus of this essay is the dynamic stability properties of different organisational forms, it is important to recall that for the dynamic stability of that model it is both necessary and sufficient that behavioural responses are known and are of a particular kind. In addition, there remains the enduring research agenda of satisfactorily incorporating money and finance in that framework.

As soon as we move away from this endpoint of the continuum, the essentially monetary nature of the modern economy has to be faced squarely [Cartelier and Froeschle 1989]. The acquisition of commodities is not the ultimate objective of agents in a capitalist economy. They seek to earn a surplus of revenues over costs. While utility maximisation might exist, profits are the social measure of economic performance. Profits of firms, in a familiar macro-economic identity, are equal to investments plus the government deficit. It is necessary therefore to conceptualise the modern economy as a policy regime in which the laws governing money, credit and contract are "part of a game embedded within a larger game" [Shubik 1984:5]. Institutional detail has to be filled in. The order of moves has to be specified. In order to define the payoffs in all disequilibrium states, rules concerning bankruptcy and so on have to be spelt out. Special agents like commercial banks with constraints concerning the distribution of their profits have to be introduced. A special player, an arbiter of the club of commercial banks, with a distinguished strategy set will exist. Monetary systems are social organisations which evolve through a process of invention and innovation. Economic policy can change the contours within which private sector choices are made. Temin (1990), arguing along these lines and drawing on the work of Thomas Sargent suggests that monetary history might not fruitfully be examined as the outcome of macro-economic policies divorced from the institutional context in which they are embedded. The particular illustration provided is the establishment of new policy regime by Roosevelt in 1933. The previous Hoover regime had been financially conservative, adhering to the rules of the gold standard and fiscal orthodoxy. Roosevelt abandoned this policy package, devaluing the dollar and extolling the virtues of inflation. The rules of the game were changed. In the new dispensation, government was under an implicit contract to determine the money supply, expenditure and the exchange rate. Expectations and actions sharply altered to a state of euphoria in response to what was perceived as long-term government policy.

The financing arrangements in a modern economy, by definition, involve borrowers and lenders. The proximate lender to an owner of capital assets and investing units is a financial institution. Borrowing and lending are also used by households to finance spending and asset acquisition. Asset-holders will shift between assets on the basis of interest-rate relativities. The relative own rate offered by each unit is not subject to the control of the monetary authorities. The authorities can at best indirectly influence these own rates by operating on the general level of interest rates [Goodhart 1991]. In that case, and with the financial innovations of recent times, the elasticity of substitution in the form of speed and responsiveness of these shifts increases. Firms, in their turn, may switch banks as a strategy for bargaining for lower interest rates over the cost of funds. Users of financial services cannot, without considerable cost, discriminate between alternative banks with different risk-return profiles. Depositors can withdraw their funds at will and hold cash. Alternatively, as in the case of bank runs in recent history, depositors might exit from banks perceived as an inferior outlet to alternatives. Since bank assets consist mainly of loans to firm, banks experiencing a shortfall of cash are forced to curtail lending and perhaps call in existing loans. As a consequence, businesses are compelled to seek alternative avenues of finance. Thin secondary markets imply that banks will be threatened with capital losses if they collectively attempt to sell out a part of their position. The only optimising strategy for such institutions is to stall a run-off of their deposit liabilities, that is, to refinance rather than sell out their position. In order to accomplish this they must meet market competition on a continuous basis. Minsky (1982, 1986) has proposed a framework in which all agents in a modern economy are usefully regarded

as 'banking units'. Households, corporations, as well as banks, finance positions in assets by emitting liabilities. At the same time, every unit must have a normal cash flow from operations. Like banks, all units must be liquid and solvent. According to the traditional precepts of banking, the liquidity and solvency of banks was ensured by self-liquidating commercial loans. In an identical fashion, on the part of firms, the payment commitments on debts must lie within bounds dictated by realised and expected cash flows. The relation between the cash flow and the commitments embodied in liabilities determine the conditions under which units can be placed in financial distress. The closer the articulation between the contractual and normal cash flows from a unit and its cash receipts, the smaller the domain of stability of the financial system

There is no particular premium to be attached to banks in this process of financial positioning. Households can purchase a diversified set of assets identical to a bank. The standard rationale that runs in terms of economies of scale and safe-keeping services does not apply as these can be obtained by investing in a collective investment fund. The modern explanation runs in terms of the asymmetric information that characterises the relationship between pairs of agents. Individuals will not have the time and expertise to monitor the behaviour of firms. Banks are alleged to have an informational advantage in this regard. It remains true, however, that both banks and savers will be at an informational disadvantage compared with the borrower, in assessing the latter's net worth. It seems reasonable therefore to assume that a 'veil of ignorance' prevails in financial contracting and conditions of bilateral private information best describe the relationship between pairs of agents. While the true asset value of the bank's (non-marketed) loans is uncertain, their nominal value is fixed. For this reason both banks and depositors will denominate deposit liabilities in fixed nominal terms. This is a superior arrangement for banks because the common denomination will reduce the risk arising from the reduced covariance between the value of its assets and its liabilities. The depositor would demand fixed nominal deposits from the bank for the same reason that the bank demands fixed nominal terms from borrowers. Depositors cannot, without considerable costs, know the true conditions and prospects of their bank. The incentives for banks not to shirk are increased by denominating deposits in fixed nominal terms. However, the combination of the nominal convertibility guarantee along with the state of ignorance regarding the true value of balance sheets lead to the possibility of bank runs and a systemic crisis.

The primary cash flows that validate household, business and government debt come from profits. The level of profits, in its turn, determines the debt structure that businessmen, their bankers and households, the ultimate holders of the assets of an economy, will accept. Profit expectations determine the level of investment which is ineluctably founded on uncertainty. Due to this fundamental uncertainty, investors and their financiers seek asset and liability structures that are hedges against unfavourable states of the world and adjust their portfolios continuously towards that end. Time is calendar time and cannot be captured by the device of dated commodities. 'News' variables can sharply change the relative prices of various capital assets and financial instruments as well as the relation between capital-asset prices and the price of current output. A classical dichotomy does not hold. Prices must fulfil not only their resource-allocation and output-rationing functions but also ensure that obligations on business debt are met.

In sum, the close articulation between what Knodell and Levine (1984) call the financial circulation and the industrial circulation make the system more crisis-prone. Movements within the industrial sector centre on conditions of profitability which involve long-term considerations. The process of production and of investment entail a time dimension that is distinct from the time dimension of a crisis. The financial circulation, on the other hand, is not linked to a calculation of profitability based on commodity production, nor is the time dimension of the financial circulation constrained by the period of production and investment. The term crisis connotes a process in which decisions are reinforced or reversed and in which these decisions are made with an expectation of their reversal and an immediate test of their value.

It was observed earlier that for the stability of a Walrasian multi-market system, a substitution principle must apply. Demand curves must be negatively slopped. However, because of the peculiar nature of financial economies, it is difficult to disentangle preferences from expectations [Minsky 1982, 1986]. This is the outcome of the pervasive uncertainty and conjectural elements that characterise modern economies. Agents choose assets and liabilities in a portfolio. Uncertainty impacts on portfolios. Each economic agent has a preference system that describes her aversion to uncertainty. These tastes are affected by observed payoffs. In other words, the curvature of a utility-income preference schedule is not given but the product of economic outcomes. It is possible, for example, that a rise in the relative prices of some subset of financial instruments may increase the quantity demanded of such assets. A rise in prices may then generate conditions conducive to another rise and so on.

We proceed with a consideration of policy regimes that can be set in place to reduce uncertainty. In the first case, it is worthwhile to recall that the discretionary policy functions of central banks came after their primary micro role of attending to the stability of individual members of the commercial banking system [Goodhart 1991]. In the pursuance of this objective, Central Banks lend at the discount window as an ultimate source of liquidity for the economy. If normal operations entail banks borrowing at the discount window, then the capital adequacy and asset structure of banks will be under Central Bank supervision. Open-market operations are the means by which Central Banks finance government activities. On the other hand, when the Central Bank supplies reserves through the discounting of to-the-asset short-term business debt, it is cofinancing business. The issue of short-term paper is linked to the ownership of business inventories. As loans fall due and are repaid, bank reserves are depleted. In order to replenish these reserves, banks would have to discount paper and there would be an ongoing relationship between banks and the central bank. The role of the Central Bank ensures that the paper would have a preferred status in financial markets. In the present case, the interest rate set by the Central Bank for its lending operations is an important determinant of the financing terms commercial banks can offer. Although the supply of reserves is infinitely elastic to all holders of this paper, the interest rate is fixed by the Central Bank on the basis of economywide considerations. In the words of Goodhart (1991), Central Banks are "non-competitive, non-profit-maximising agents" in this function.

The role of Central Banks as competing with the private sector to maximise the public deficit over the cost of securities came after the function outlined above. It remains true, as Goodhart (1995) reminds us, that monetary variables are statistical abstractions and monetary authorities are

concerned with ultimate objectives like output, employment and price stability. Nominal incomes are influenced by fiscal as well as monetary policy. Indeed, when Central Banks were founded they were not meant to fulfil the exclusive objective of price stability. Instead, they were established by governments as the first among equal commercial banks with special privileges provided them in the original charter. As the main Central Chartered Bank, they were bankers to the government. In periods when the government was unable to finance the deficit, Central Banks were expected to make additional loans available. The 'authorities' were loosely conceived to be both monetary and fiscal authorities. The objective of the authorities was to manage demand to achieve domestic full employment. To that end they might deploy either fiscal or monetary instruments. Indeed, governments have been largely responsible for preventing fragile structures into unravelling into full-fledged crises and deep depressions. Governments sustain demand and feed secure assets into portfolios whenever there is a fall in income and employment. They provide stability through the impact of deficits as a contracyclical policy to stabilise profits.

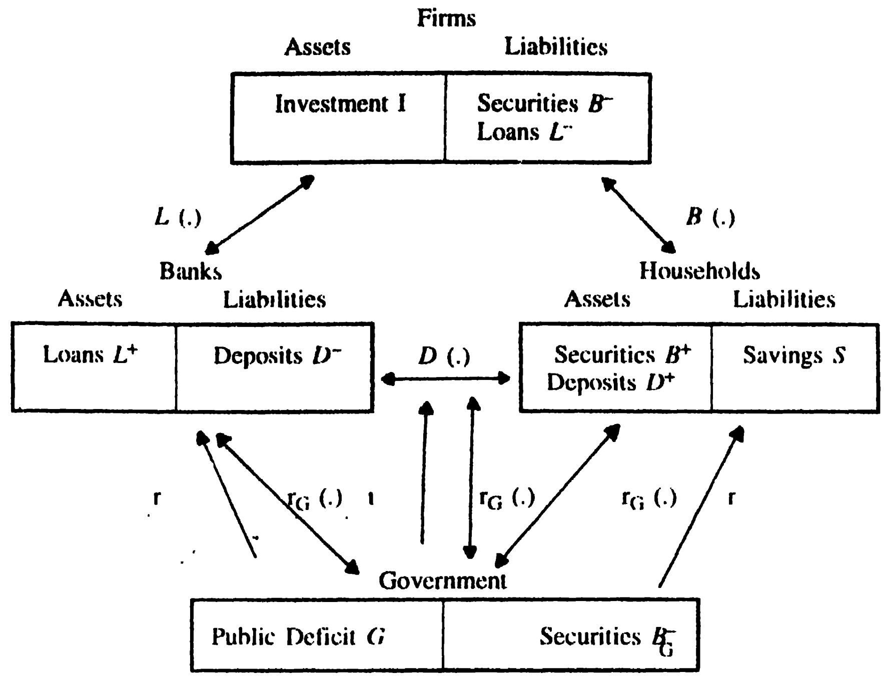
We proceed to validate these conjectures below. In the first place, we show that a private sector economy with profit-maximising agents is dynamically unstable. We introduce the authorities in turn as operating the discount window and as agents optimising a profit function. The properties of these two policy regimes are compared. A final section is a summary.

II
The Main Results

The financial decisions of agents are represented in a generalisation of a diagram from Freixas and Rochet (1997: 9). The subscripts F, H, B and G denote a representative firm, a representative household, a representative bank and the government respectively. All agents behave competitively. The superscript + represents a supply and the superscript − represents a demand.

We generalise the credit view of the transmission process by relaxing the assumption that bank loans are an imperfect substitute for bonds. As suggested, there is no primacy to be attached to the bank-borrower relationship in the process. The credit view can be described in the following way [Freixas and Rochet 1997]. The standard model is a world with one good and three assets (money D, bonds B and loans L). The real income of

Contracts in (r_L, r_D, r_B)



households, y, the interest rate on bonds, r_B, and the interest rate on deposits, r_D determine savings which are allocated between the two assets:

$$\underset{}{S}\,(\underset{+}{y},\underset{+}{r_D},\underset{+}{r_B}) = B^+(\underset{+}{y},\underset{-}{r_D},\underset{+}{r_B}) + D^+(\underset{+}{y},\underset{+}{r_D},\underset{-}{r_B})$$

The possibilities for investment financing by firms is given by

$$I(\underset{-}{r_L},\underset{-}{r_B}) = L^-(\underset{-}{r_L},\underset{+}{r_B}) + B^-(\underset{+}{r_L},\underset{-}{r_B})$$

Banks issue deposits and make loans so that

$$L^+(\underset{+}{r_L},\underset{-}{r_D}) = D^-(\underset{+}{r_L},\underset{-}{r_D})$$

Equilibrium on the money market is given by

$$D^+(\underset{+}{y},\underset{+}{r_D},\underset{-}{r_B}) = D^-(\underset{+}{r_L},\underset{-}{r_D})$$

while the IS curve is given by a system of two equations

$$I(\underset{-}{r_L},r_B) = S(\underset{+}{y},\underset{+}{r_D},\underset{+}{r_B})$$

(equilibrium on the goods market) and

$$L^-(\underset{-}{r_L},\underset{+}{r_B}) = L^+(\underset{+}{r_L},\underset{-}{r_D})$$

(equilibrium on the credit market).

The profit functions of the three agents are

$$\pi_F \equiv pf(I) - L^-(r_L,., r_B) - B^-(r_L,., r_B)$$
$$\pi_B \equiv L^+(r_L, r_D,.) - D^-(r_L, r_D,.)$$
$$\pi_H \equiv B^+(., r_D, r_B) + D^+(., r_D, r_B)$$

where f(I) denotes the production function of the representative firm. The following observations on this game are germane to the discussion. The inclusion of additional elements like the purchase of bonds by banks or indeed more agents will not alter the *structure* of the game. The game is 'almost perfectly antagonistic' in the following ways. A coalition of all the players will attain the payoff pf(I). This is a vindication of the argument made above that the utilities of all players in a capitalist economy are maximised by maximising the non-constant sum, the value of investment. Profits are apportioned among the bank and the household. An investment project involves two sets of interlocking decisions on the part of the firm. One set involves the revenues expected from using the capital asset in production. The second deals with financing the capital asset. The cost of financing the production of investment enters the supply price of output just like the cost of labour and material inputs. The ability to debt-finance new investment depends on expectations that future investment will be high enough so that future cash flows will be adequate to fulfil contractual commitments to bankers and households. Such a regime is particularly vulnerable to changes in the pace of investment for investment determines the viability of debt structures. The instability of such an economy is the consequence of the subjective nature of expectations of the future course of investment held by businessmen and the subjective nature of the appropriate liability structures held by businessmen, bankers and households.

The game has a saddlepoint in the following sense. Assume that coalitions

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of two players can be formed. In that case for players i,j and k, we have

$$\pi_i + \pi_j = pf(I) - \pi_k.$$

Furthermore, it can be seen that the game is essential, that is, coalitions of two players are both necessary and sufficient to increase payoffs. The joint outcome is not less than what the players would have earned if they functioned non-cooperatively.

The following result is the consequence.

Proposition 1. The contracts L,D and B are convex in (r_L, r_D, r_B)

Proof. The argument will be conducted in the case of the firm. Symmetrical considerations apply in the case of the other agents.

The bank and the household must unite into a coalition to ensure equilibrium. Recall that their joint objectives are (almost) diametrically opposed to the objectives of the firm. Suppose that the worst possible payoff to the firm is a result of the two other agents employing a strategy combination that imposes the following cost $L^-(r_L, r_D, r_B) + B^-(r_L', r_D', r_B')$.

Now,

$$\pi_F = pf(I) - L^-(r_L, , r_B) - B^-(r_L ..., r_B) \forall r_D$$

Suppose that the unrestricted maximum of the profit function is given by

$$\pi_I = pf(I) - L^-(r_L', r_D', r_B') - B^-(r_L', r_D', r_B')$$

In like manner, suppose that the supply of loans and demand for bonds arising out of the unconstrained optimisation exercise conducted by the bank a nd the household above is given by $L^+(r_L'', r_D'', r_B''')$ and $B^+(r_L'', r_D''', r_B''')$.

The profit function is restricted by the level of loans and bond supply emanating from the bank and the household respectively. Profits are therefore decreasing in these levels. Simultaneously, they can be regarded as participation constraints to be fulfilled in the signing of these contracts. That is, the maximum profits above are

$$\geq pf(I) - L^+(r_L'', r_D'', r_B''') - B^+(r_L'', r_D''', r_B''')$$

Choose some

r_B which is a convex combination of r_B' and r_B'''

r_L which is a convex combination of r_L'' and r_L'

$r_D'' \leq r_D \leq r_D'''$

Then, the above equation

$$\geq pf(I) - L^+(r_L, r_D, r_B) - B^+(r_L, r_D, r_B) \equiv F(r_L, r_D, r_B)$$

$$\geq pf(I) - L^-(r_L, r_D^*, r_B^*) - B^-(r_L^*, r_D^*, r_B^*)$$

In other words, contracts will be a convex combination of (r_L', r_D', r_B') and (r_L^*, r_D^*, r_B^*).

The result can be regarded as an illustration of the view, mentioned in the previous section, that preferences in financial markets or elsewhere, are the outcomes of enduring exchanges and contracts rather than the initial datum on the basis of which they are initiated [Baron and Hannan 1994]. Preferences are endogenous because agents conform to the expectations of others. Since prescriptions about behaviour emerge from market interaction, people are assumed to have strong preferences concerning the forms of exchange rather the results. The result can also be regarded as a variant of the idea of spillovers, often associated with Keynes, between markets, resulting in maximisation exercises not being a function of variables in the market under consideration alone.

The result motivates the following putative disequilibrium dynamics on the system where the functions are increasing in y and convex in (r_L, r_D, r_B).

$$\frac{dy}{dt} = X_1(y, r_L, r_D, r_B)$$

$$\frac{dr_i}{dt} = X_i(y, r_L, r_D, r_B),\ i = L, D, B.$$

Since the first-order responses are not known, we must have recourse to the qualitative theory of differential equations. The following treatment relies on Nemytskii and Stepanov (1960). For the purpose of generality, we will describe our dynamical system above in the following manner.

We consider motions defined by the system of differential equations

$$\frac{dx_i}{dt} = X_i(x_1, x_2, ..., x_n),\ i = 1,2,...,n$$

Let a metric space R be given along with a family of mappings f(p,t) of R onto itself. The parameter t is *time*. The function f(p,t) for fixed p is called a *motion*. The set of points $\{f(p,t); -\infty < t < +\infty\}$ for fixed p is called a trajectory of this motion.

Definition 1. A point p is called 'non-wandering' if for each n of a p_n and t_n

$t_n > T_n$, $d(p_n, p) < \varepsilon_n$, $d(p, f(p_n, t_n)) < \varepsilon_n$

Definition 2. The dynamical system is *completely unstable* if all its points are wandering.

In the case of the dynamical system at hand,

Proposition 2. The dynamical system is completely unstable.

Proof. The proof rests on the fact that if the argument of a convex function is increased, the function cannot change its behaviour from an increasing to a decreasing function.

Choose two numbers p and $f(p_1, t_1)$, $p \geq f(p_1, t_1)$, such that $d(p, f(p_1, t_1)) = \varepsilon$. and points in the interval $(p, f(p_1, t_1))$ such that

$$f(p_1, t_1) < f(p_2, t_2) < ...,\ f(p_n, t_n)$$

Each of the intervals $f(p_i, t_i) - f(p_{i-1}, t_{i-1})$ is initially of the same length ε_1 say.

Now

$$p_1 < p_2 < ... < p_n ...,\ \lim_{n \to \infty} p_n = p$$

$$0 \leq t_1 < t_2 < ... t_n < ...,\ \lim_{n \to \infty} t_n = +\infty$$

Assign the sequence of positive numbers

$$\varepsilon_1 > \varepsilon_2 > ... \varepsilon_n > ..., \varepsilon_n \to 0$$

We have

$$d(p, f(p_1, t_1)) \leq d(p, f(p_n, t_n)) + d(f(p_n, t_n), f(p_{n-1}, t_{n-1})) + ... + d(f(p_2, t_2), f(p_1, t_1))$$

Repeated subdivision of the intervals and use of the triangle inequality results in the above expression

$$= o(\varepsilon_n)$$

In other words, if the point p is a nonwandering point we have

$$d(p, f(p_1, t_1)) \to 0$$

a contradiction.

We introduce the monetary authorities into the model. In particular, we consider the stabilising function of the discount rate $r_G \equiv r$. There is a close, but not one-to-one correspondence between concepts in evolutionary game theory and dynamical system theory. In the case of an evolutionary system, the state vector consists of strategies employed by agents and the concept of stability is given by the following.

Definition 3. A strategy $r^* = (r_L, r_D, r_B, r_G)$ is said to be an *Evolutionarily Stable Strategy* (ESS) if, for any other $r = (r_L, r_D, r_B, r_G)$,

$\pi_i(r^*) \geq \pi_i(r)$, i = B, H, F, G

and

Theorem [Vega-Redondo 1996] Let r* be an ESS. Then the state $x^* = r^*$ is an asymptotically stable equilibrium of the dynamical system.

In euphoric times, by a tight administration of the discount window, Central Banks make liability and asset structures more conservative by introducing uncertainty. Accommodation is only available to banks that show hard evidence that they are constraining the expansion of business loans. The destabilising influences that are the outcome of too rapid an expansion of bank financing of business and asset holdings should diminish. In terms of our formalism, the effect is to *introduce a concavity in the profit functions of the three agents.* The discount rate can be regarded as a lumpsum cost, that is not contracted for, and that is passed from the bank to the two other agents, as indicated in the diagram. *A certain dynamic stability is provided. At the same time, the system is*

not evolutionarily stable. For the latter to hold, profits must not be less than those generated by the policy in place. Indeed, the definition of an ESS does not apply with $r = r_G$ as the authorities are not a player in the game. The implicit assumption behind measures such as these seems to be that banks will operate on the asset side of their balance sheets. Banks, it has already been argued, will continue to try to achieve the desired portfolio equilibrium. They will not call in loans on a large scale. They would meet the shortage of cash by bidding for funds, by raising the rate they offer on deposits. The extent to which banks will push up rates will depend on the interest elasticity of the demand for loans from the private sector. If borrowers are prepared to pay a higher rate, it will be in the interest of banks to bid more aggressively for funds to meet their requirements. In that case, both the dynamic and evolutionary stability of the model is not assured.

Finally, in its function of buying and selling securities in the open-market, we examine the government as a 'competitive, profit-maximising bank', in the words of Goodhart (1991). As long as bank reserves are the result of open-market purchase of government securities, banks compete with the Central Bank. The strategy of the latter is r_G, the rate of interest on government paper and the interaction with the private sector is depicted in the diagram. In the absence of an infinitely elastic supply of finance from the monetary system, rising interest rates are required to induce successive portfolio adjustments. The reaction functions of members of the private sector as well as the government are therefore assumed to be increasing. In order to show evolutionarily stability, it is necessary to show that as the consequence of the entry of a leader in a hierarchical game, members of the private sector are not worse off being followers than being leaders.

The union of the firm, the bank and the household is the private sector (PS) of the economy. The strategies of this 'amalgamated' player are all possible combinations of the form $r \equiv (r_L, r_D, r_B)$. The payoffs of this 'player' are denoted by $\pi_{PS}(r_G, r)$. Consider a leader-follower model in which the government plays first. It is assumed that the reaction functions $f_i(r_i)$ are increasing functions. It is well known that if the response of the follower is unique for any action of the leader, the latter always prefers to be the leader than the follower. The following result is drawn from Varian (1992).

Proposition 3. The private sector weakly prefers to be the follower rather than the leader.

Proof. Let $(r_G^*, r^*) = (r_G^*, f_{PS}(r_G^*))$ be the Stackelberg equilibrium of the game. Now,

$$\max_r \pi_{PS}(f_G(r), r) \leq \max_r \pi_{PS}(r_G, r)$$ since profits are nonincreasing in the price of government paper. This leads to the above expression

$$\leq \max_r \pi_{PS}(r_G, f_{PS}(r_G))$$ from the definition of a reaction function, and in turn, the expression

$$\equiv \pi_{PS}(r_G^*, r^*).$$

In other words, the profits of the private sector are no smaller if it is the follower than if it is the leader.

To conclude, we have

Proposition 4. Government capitalism is evolutionarily stable.

In this case, *the dynamic stability of the model is called into question*. Feeding government liabilities into portfolios, mentioned above, as the deficit is financed during recessions means that an ability to finance investment during a subsequent recession is stockpiled. The inflationary impact of investment is augmented by the inflationary consequences of government intervention. The rise in nominal incomes, after all, is composed of an increase in output and an increase in prices. The inflationary dynamics, of such a regime, could get explosive.

III
Conclusion

The results above can be regarded as one way of addressing the 'big theorem' of a contemporary capitalist system: "a capitalist economy with sophisticated financial institutions is capable of a number of modes of behaviour and the mode that actually rules at any time depends upon institutional relations, the structure of financial linkages and the history of the economy [Minsky 1982: 92]. At one end of the range of possible institutional relations are arrangements in which Central Banks might have no role to play. All agents seek to make cash 'on the carry' on the funds they are initially endowed with. They enter into relationships that are open-ended. The interlocking nature of these implicit covenants results in contracts that have a common functional form. It is shown, once again in a vindication of Minsky, that pure capitalism is 'financially unstable'. In a first pass at possible policy regimes, the discount rate is the policy variable in the hands of the monetary authorities. To borrow the popular expression of Tobin, the effect is to "throw sand in the wheels" of the profit-maximising calculus of banks, firms and households. The effect is to induce stability into the system. At the same time, as the authorities are not players in the game and the result of the operation of the discount window is profits that are less than would have been the case without the discount rate as a cost, the regime is not evolutionarily stable. At the other end of the policy spectrum is the interventionist government which is a consolidated monetary and fiscal authority. It is a player that is the Stackelberg leader of the system. It is shown that the private sector, qua follower, is not worse off in that role than would have been the case if the government was follower. All agents benefit from the leadership of the authorities. The system is evolutionarily stable. At the same time, the competition by profit-maximising governments results in prices that are higher than would have been the case in their absence. The problem of the simultaneous existence of deficits to shore up profits and inflation remains unsolved.

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Does Money Supply Process in India Follow a Mixed Portfolio – Loan Demand Model?

Deba Prasad Rath

An examination of the determinants of the money supply is an important but often overlooked aspect in Indian monetary research. The literature distinguishes three competing models of the money supply process, namely, 'pure portfolio approach', 'pure loan demand approach' and 'mixed portfolio-loan demand approach'. While the first corresponds to the money multiplier approach, the latter two are the accommodative and structuralist views of money endogenenity of the post-Keynesian monetary theory. Using RBI monthly data, this study finds the endogenous nature of money supply in India where a paradigm of mixed portfolio loan model operates. It supports the structural approach implying that the policy stance of the monetary authority and private initiatives of banks are important in money supply determination.

I
Introduction

AN examination of the determinants of the money supply is an important but often overlooked aspect of the study of the relation between money and the economy. The ways in which the central bank, the banking system and the public interact to create the monetary aggregates are significant to the conduct of monetary policy and to an understanding of the working of the macro-economy.

In the theoretical literature on the money supply process, three competing models, viz, 'pure portfolio approach', 'pure loan demand approach' and 'mixed portfolio-loan demand approach' have been distinguished. While the first corresponds to the money multiplier approach in the monetarist framework, the latter two are the accommodative and structuralist views of money endogeneity of the post-Keynesian monetary theory. In contrast to the former approach where money supply grows strictly through central bank initiative, i e, through processes strictly exogenous to financial market pressures – post-Keynesians have developed the view that pressures emerging endogenously within the financial markets are the basic determinants both of money supply growth and of credit availability. Both the endogenous money approaches share the view that banks extend credit, creating deposits in the process and look for reserves later. They are different in their view on reserves.

How and where do banks obtain the needed additional reserves once they extend credit and create deposits? One perspective argues that when banks hold insufficient reserves, central banks must necessarily accommodate their needs, as acting otherwise would threaten the viability of the financial system. No effective quantity constraint exists for the banks' reserve needs because the central bank is obligated to accommodate the demand for reserves at the discount window. This is the accommodative money supply endogeneity. Leading proponents of this view include Kaldor, Weintraub and Moore.

According to the other perspective, when central banks choose to restrict the growth of non-borrowed reserves, then additional reserves are generated within the financial structure itself through innovative liability management practices like borrowing in the federal funds and CDs. This approach of structural endogeneity of money has leading proponents in Mishkin, Earley and Rousseas. The critical difference between the 'pure loan demand approach' and 'mixed portfolio-loan demand approach' models relates to the private initiatives of banks in accommodating increases in loan demand. In the former, accommodation depends exclusively on the stance of monetary authority and its willingness to meet the reserve pressures generated by increased lending, while in the latter accommodation depends both on the stance of monetary authority and the private initiatives of banks. In terms of shape of money supply function, while the accommodative endogeneity group most closely aligned with Moore stipulates a more horizontal money supply function, the structural endogeneity group believes in a positively sloped money supply function.

In this paper, we attempt a critical review of the relevant literature to examine the theoretical and empirical issues of the money supply process, especially in the Indian context. In Section II, we give the formal analytic of the three competing approaches to the money supply process as envisaged in the money multiplier theory of the monetarists' exogenous money framework and the two post-Keynesian models, i e, the 'pure loan demand approach' and 'mixed portfolio-loan demand approach' models in the endogenous money framework. We outline the testable hypotheses for each model. In Section III, we undertake an empirical exercise to examine the Indian monetary data in the context of the recent financial liberalisation and report our results. The conclusions emanating from our analysis are reported in Section IV.

II
Analytical Framework[1] and Testable Hypotheses

Portfolio Choice Money Multiplier Model (Model A)

The pure portfolio approach corresponds to the monetarist description of the money supply process. While reserve money is the sum of currencies and reserves flowing from the central bank's balance sheet, the broad money is measured as an aggregate of different financial liabilities, viz, currencies, time deposits and demand deposits on the components side flowing from the overall banking sector, the respective quantities of which are determined by the choices of agents. In a fractional reserve banking system the supply of base money sets an upper bound on money supply. Actual money supply is then determined within this bound by portfolio preferences embodied in demands for the different liabilities.

Pure loan demand approach (Model B)

Pure loan demand approach is the post-Keynesian model where money supply is endogenously determined by the level of bank lending. Its model set-up differs from model A in that it includes demand for bank loans and the banking sector balance sheet constraint. These features in combination ensure that the market for bank lending clears and they enable loan demand to affect money supply. Deriving

from Rousseas (1985) and Moore (1988, 1989) it corresponds to the post-Keynesian accommodationist view of endogenous money wherein money supply grows strictly through the central bank initiative by way of its performance of the lender of last resort function. The central bank accommodates commercial banks' demand for reserves in their process of credit extension to economic agents. The ability of the banking system to accommodate loan demand depends on the stance of the monetary authority.

Mixed Portfolio-Loan Demand Model (Model C)

The mixed portfolio-loan demand approach is attributed to Palley (1987). It models banks' choices of composition of their assets and liabilities. It is seen that when a central bank follows a tight monetary policy, banks actively manage their assets and liabilities position in such a way as to be able to cater to profitable lending while not being reserve constrained. In order to capture these phenomena Model C includes not only demand for alternative instruments along with bank lending, but also captures the composition of their assets and liabilities through the first order condition of the pricing equation.

The analytics of the three competing money supply models, as outlined above, throws a set of testable hypotheses. According to Palley (1994), these models have different implications regarding the causes of changes in money supply. The testable hypotheses are summarised in Table 1.

Granger-causality framework, therefore, can be used to identify the relative consistency of the three models with the data at hand In the pure portfolio model (Model A), the money supply is independent of loan demand. Consequently, bank lending (L) should fail to Granger-cause both z and H. However from the banking sector balance sheet identity, changes in money supply arising from changes in either z or H, do cause changes in bank lending: consequently, both z and H should Granger-cause L. In the pure loan demand model (Model B), the money supply rises in response to bank lending. This is accomplished through passive increase in H so that the model is consistent with L Granger-causing H. However in this model lending is not reserve constrained, so that H does not Granger-cause L. In the mixed portfolio-loan demand model (Model C), there is potential for bivariate causality between both L and H, and L and z. Increased lending causes liability transformations that increases z and also increases through increased borrowed and non-borrowed reserves (BR and NBR): changes in asset preferences or changes in the supply of reserves also causes changes in lending so that z and H can Granger-cause L.

Within the endogenous money approach, a key issue is the notion of proportionality in relative movements of loans and reserves as long as the central bank fully accommodates the banks' reserve requirements consequent to their lending operations [Pollin 1991]. To test for this, we examine the ratio of L/R where L is total loans and R is the reserves. If the ratio is stationary, the stochastic properties do not vary with respect to time, then the accommodative approach can be accepted.

III
An Empirical Exercise on Indian Monetary Data

Evidence on Instability of the Broad Money Multiplier

According to Sen and Vaidya (1997), two critical assumptions form the basis of money multiplier approach: firstly, banks and non-bank public maintain stable reserves and cash to deposits ratios and secondly, the monetary base is usually treated as exogenous [Cobham 1991]. The first assumption implicitly assumes that either the portfolio of commercial banks and households are invariant to interest rates or that portfolio decisions of these two sets of economic agents have a fairly stable or predictable relationship with relative rates of returns. Either of these assumptions may be tenable in a financially repressed system since in such a system, the lack of depth in the financial markets implies that there are few assets that are close substitutes to non-interest bearing reserves and deposits.

There are two reasons why the above may not be true for a liberalising economy. Firstly, as the government opens up its capital market to foreign portfolio investment, the rush of foreign funds that accompanies such a decision (especially if the country is perceived as an emerging market) leads to significant rise in monetary base if the central bank is unable to either sterilise the inflow of funds or let the exchange rate appreciate. The first may not occur if the treasury bills market is not developed enough for the central bank to conduct open market operations (OMO).

There is a second reason why the monetary base cannot be considered to be exogenous in an economy, which has liberalised its financial sector. With market-determined prices of most financial assets, it is in the central bank's interest to adjust bank reserves so as to keep the prices of financial assets stable. The central bank lets the supply of bank reserves meet its demand to prevent fluctuation in the interest rates. Therefore even if the central bank can keep the monetary base at its predetermined level it will choose not to do so as to ensure the stability of financial markets and in its role as lender of last resort.

As bank assets and liability markets develop, banking system witnesses a structural shift from asset management to liability management [Goodhart 1984]. Liability management is a technique of bidding for wholesale deposits at negotiated rates and is an outcome of the development of wholesale money markets such as the CD market. In a system of asset management the central bank could simply increase the reserve requirement if it wishes to slow down the money supply growth. Given restrictions on other uses of funds banks would perforce have to curtail loans to the corporate sector. In a system of liability management this would no longer be the case. As Chick (1988) argues, liability management fundamentally alters the bank behaviour: instead of banks' willingness to lend being dependent on the liquid assets/reserve components of their balance sheet, banks could now decide on a target expansion of lending and fund the result by competing for the wholesale deposits and increasing recourse to the call money market for short term funds. As a consequence with liability management banks could always find the funds to meet the demand for bank loans, albeit at a higher cost of borrowing for bank customers. The control over the banks' books would depend increasingly on the interest elasticity of bank loans, something, which always is uncertain and low in the short term [Goodhart 1984]. Therefore in a regulated financial system strict control of monetary base would continually threaten massive movements in the interest rates.

Table 1: Alternative Money Supply Processes - Direction of Causality

1 Pure portfolio model	$[z, H \rightarrow L,\ \ L \nrightarrow z, H]$	Unidirectional Process
2 Pure loan demand model	$[L \rightarrow H,\ \ H \nrightarrow L]$	Unidirectional process
3 Mixed portfolio-loan demand model	$[L \rightarrow z, H,\ \ z, H \rightarrow L]$	Feedback process

Recent Financial Liberalisation Measures[2]

The implementation of a series of financial liberalisation measures in India since the late 1980s provided considerable maneuverability to banks and financial institutions in the choice of their portfolios. For the banks the CRR was progressively scaled down. Banks were afforded considerable operational freedom in the determination of their interest rates. They were also allowed to venture into newer activity areas. As a result banks are under increasing competitive pressure to seek resources from sources that go beyond their traditional areas. For example, certificate of deposits (CDs) and other money market instruments, viz, call money and repos as well as various external liabilities such as FCNR (B), NRE deposits and RIBs, etc, have provided the means for raising deposits and mobilising resources. The increase in such managed liabilities coupled with interest rate deregulation has however led to both increase and diversification of assets together with enhancement of risk and uncertainties. Banks have been funding assets, which were hitherto not significant, e g, investment in commercial papers (CPs), shares and debentures of corporate and foreign securities, etc.

In recent times significant changes have taken place in the Indian financial system. The market determined exchange rate system has been in place since March 1993. In the money market, the overnight (call) rates were freed from the ceiling of 10 per cent in May 1989 and since then the number of participants in the call money market has increased. The interest rate ceiling on rediscounting of commercial bills were also withdrawn from May 1989. Commercial papers (CPs) were introduced in 1990 and the provisions governing the issuance of CPs have been made more liberal over time. The instrument of certificate of deposits (CDs) was introduced in June 1989 and scheduled commercial banks as well as public financial institutions were allowed to set up money market mutual funds (MMMFs) in April 1992. Significant steps have been taken in the government securities market to develop treasury bills as a money market instrument. New instruments of 364-day treasury bills and 91-day treasury bills were introduced in April 1992 and January 1993 respectively. Recently 14-day treasury bills have been introduced in June 1997. Further the central government's market borrowing programme in dated securities have been put through an auction process since 1992-93. The short-term liquidity management has been undertaken by conducting repos, an instrument introduced in December 1992 and after a period of repose, reactivated since November 1996. The Reserve Bank initially conducted repos for a maturity of up to 14 days, which is the cycle for the reserve requirements. More recently, the Reserve Bank has been conducting three-day repos to absorb short-term liquidity and even out the money market rates. The Reserve Bank has also commenced daily fixed rate repos for a maturity of three days. These developments have not only given a market orientation to the government securities market but the introduction of a variety of financial instruments has facilitated better cash management of various segments of the economy.

In regard to bank lending rates, scheduled commercial banks were given freedom to fix their prime lending rates (PLRs) for credit limits over Rs 2 lakh from October 1994. The PLRs have generally responded to changes in the Bank rates since April 1997 when the Reserve Bank linked it to all its lending rates.

Unit Root Tests

We set out with testing for unit roots of the series we use in our exercise. In view of the size-power trade-off we select the order of the ADF regression through a two-step procedure. First, the length of the lag in each case was chosen using the appropriate model selection criteria of maximising the Akaike Information Criterion (AIC) and Schwarz Bayesian Criterion (SBC). Since different model selection criteria can lead to different models and, in particular when there is a conflict among the two criteria, the SBC dominates over AIC since SBC leads to a parsimonious model. At the second stage, ADF test is performed with this optimal order of augmentation. Using the above procedure, we test the order of integration of each series using ADF/Phillips-Perron test statistics, as reported in Table 2 and find that the variables are all I (1).

The monthly data on Indian money multiplier show that it varied in the range of 2.17-3.72 with a mean value of 3.0. The volatility of the multiplier measured by its standard deviation, which had declined during the 1980s from the 1970s, however, increased in the 1990s mainly due to frequent changes in the CRR. Its decadal movements are summarised in Table 3.

Keeping in view the movement in the broad money multiplier, the key question is how stable is the multiplier which could explain the long run relationship between the broad money and the monetary base. A common test for co-integration is the Engle-Granger two-step procedure. First we need to ensure that the order of integration of the dependent variable is not higher than that of the independent variables through the ADF test. In the second step, we run an OLS on the levels of the variables in question and test the hypothesis of co-integration by determining the order of integration of the residuals of this regression again through an ADF test.

Table 4: Statistical Summary of NFC/BD Ratio

Maximum	7 5681
Minimum	2 7594
Mean	4.4499
Standard deviation	99333
Skewness	54534
Kurtosis-3	- 63834
Coef of variation	22323
ADF test result of NFC/BD ratio	
With intercept but no trend.	ADF (10 lags) = -1.55 (-2.88)
With intercept but a linear trend:	ADF. (1 lag) = -2 72 (-3.43)

Note: Figures in brackets are critical values for the null of non-stationarity

Table 2: ADF Test Results with Maximum SBC Values (including an intercept and a trend)

Variable	ADF (lag)	Statistic (Critical Value)	Max SBC Value	Range of SBC Value
LM0	ADF (1)	-3.31 (-3.43)	406 2	390 6-406 2
LM1	ADF (12)	-3.17 (-3 43)	521 1	484 6-521 1
LM3	ADF (12)	-3.35 (-3 43)	658 7	641 5-658.7
Z3	ADF (2)	-2.31 (-3.43)	189.1	172 1-189.1
LNFC	PP	-3.11 (-3 43)	–	–

Note: Phillips-Perron test statistics (with constant and trend) are reported for LNFC

Table 3. Broad Money Multiplier

Period	Maximum	Minimum	Mean	Standard Deviation
1970s	3.07	2.17	2.67	0.269
1980s	3.37	2 83	3.12	0 119
1990s	3.72	2.96	3.24	0.269
1970-97	3.72	2.17	3.00	0 323

Source: WGMS, Reserve Bank of India.

The first step of the Engle-Granger two-step procedure provides a method for testing stability. If the money multiplier is stable then there must be a long-run relationship between money stock and reserve money. This relationship should be independent of the period of analysis. We test for the stability over the period April 1980 to March 1998 and the sub-period April 1980 to March 1990 since the deregulation in the Indian financial market came in the late 1980s. We expect the money multiplier to be stable in the sub-period but not over the entire period.

If the residuals from the co-integrating equations can be demonstrated to have an order of integration zero, i e, if it is an I (0) process, then the multiplier could be assumed to be stable in the long-run as co-integrating relationship would then be existing between M3 and M0. The two co-integrating regression equations for the full and the part period are (1) and (2) respectively as below:

M3 = -14854.1 + 3.42 M0 ...(1)

Adj R^2 = 0.99, ADF (1 lag) = –1.49 (–3.37)

M3 = 3563.2 + 3.04 M0 ...(2)

Adj R^2 = 0.99, ADF (1 lag) = –4.55 (–3.39)

Critical values for the null of no co-integration are reported in parentheses.

The above results show that while for the sub-period 1980-90, the period prior to financial liberalisation, broad money and reserve money were co-integrated implying stability for broad money multiplier, for the full period 1980-98 the series are not co-integrated, implying instability of the broad money multipliers. One of the reasons for such a phenomenon of instable broad money multiplier could be the impact of financial liberalisation on broad money variables since the late 1980s

Testing Palley's Hypothesis: Granger Block Non-causality in VAR Framework

We next examine the issue of causality among the different relevant variables by employing Granger non-causality tests in the trivariate VAR framework where the variations in scheduled commercial banks' non-food credit, reserve money and broad money multiplier are the variables under examination. Our literature review in the preceding section has identified these three variables as relevant. All these variables being I (1) as suggested by the ADF/PP tests, we first work on VAR in differences for our causality analysis. Then we supplement these results with a weak exogeneity test in the error correction equation in the co-integrating VAR framework. While we report our results on the former here, results on the latter are given in Appendix 3.2 at the end of this paper.

On the basis of the SBC criteria, we get the optimal order of the VAR as three assuming which we proceed on to test the null hypothesis of Granger non-causality of a particular variable/group of variable for another variable/group of variables. The log-likelihood ratio test for this test is asymptotically distributed as a chi-square (CHSQ) variate with the following hypothesis testing results:

(1) H0: Non-causality of DLM0 in DLNFC and DZ3

Reject the H0, since CHSQ (6) = 63.9 and is significant.

(2) H0: Non-causality of DLNFC in DLM0 and DZ3

Reject the H0, since CHSQ (6) = 38.8 and is significant.

(3) H0: Non-causality of DZ3 in DLM0 and DLNFC

Reject the H0, since CHSQ (6) = 51.4 and is significant.

(4) H0: Non-causality of DZ3 and DLM0 in DLNFC

Reject the H0, since CHSQ (6) = 56.8 and is significant.

Firstly, Money multiplier theory would imply both Z3 and M0 causing bank credit and not the reverse. A computed CHSQ value of 38.8 being significant for the null hypothesis of DLNFC being non-causal in DZ3 and DLM0 is rejected.

Secondly, when the DLM0 is assumed to be non-causal for DLNFC and DZ3, we again get significant CHSQ values (63.9 in (1) above), so that null of non-causality is again rejected. So DLM0 Granger causes DLNFC and also DLNFC Granger causes DLM0, the latter as seen from (2) above. This enables us to argue that the pure loan demand model does not work in India.

Since in our analysis, we have a bi-directional Granger causality from DLNFC to DZ3 and DLM0 as well as DLM0 and DZ3 to DLNFC, we may support a paradigm of mixed portfolio-loan model for India.

Pollin's Hypothesis Tested

As stated already, Pollin (1991) argues that a key feature of the accommodative endogeneity is the notion of proportionality in relative movements of loans and reserves which we test through stationarity/non-stationarity tests of the ratio L/R where L is total loans and R is the reserves. According to Pollin, if it is stationary, i e, the stochastic properties do not vary with respect to time, then one would subscribe to the accommodative approach. Given our data on the bankers' deposits with the Reserve Bank and non-food credit data pertaining to the scheduled commercial banks which constitute the majority of the banking system's total credit to the corporate sector, we tried to test Pollin's hypothesis as follows:

In Table 4 the summary profile of the loan-reserve ratio is given for the period under consideration along with its ADF statistics with intercept and no trend as well as with intercept and a linear trend. Since we find that the ADF statistic in either case for the ratio is insignificant being below the critical value, we conclude that the ratio is non-stationary and as such time variant.

In Pollin's framework, the above result would support the structural over the accommodative endogeneity approach since loans have not grown proportionally over time relative to reserves. According to Pollin, some of the reasons for the absence of proportionality among these variables could be the practice of liability management emerging in the financial liberalisation scenario implying lending growth in excess of the growth of reserves and the fact that market interest rates are not governed by central bank intervention. According to the WGMS report of RBI, however, interest rates at the shorter end of the market have generally followed the direction of the bank rate, but the effect of Bank Rate on long-term interest rates is not yet very clear.

V
Conclusions

The following conclusions emerge from the study:

Since in our analysis, we have a bi-directional Granger causality from DNFC to DZ3 and DLM0 as well as DLM0 and DZ3 to DLNFC, we may support a paradigm of mixed portfolio-loan model for India.

Within the post-Keynesian endogenous money framework, we seem to have reason to support the structural over the accommodative endogeneity approach, since the non-stationarity in the bank loan-reserve ratio and its corresponding time variance would indicate that loans have not grown proportionately over time relative to reserves. According to Pollin's scheme of things, some of the reasons for absence of proportionality could be, among others, the practice of liability management that banks do leading to a situation of growth in lending in excess of the growth of reserves

Over the full period of our analysis, in a residual based approach to testing of co-integration, we find that neither M1 nor M3 are co-integrated with reserve money. This indicates instability on the part of both narrow and broad money multipliers. However over the part period of 1980-90, we find stability in broad money multiplier. The reasons for such a phenomenon

could be the financial liberalisation witnessed in the economy since the late 1980s.

Appendix 1

Model A: The Portfolio Choice Money Multiplier Model

The equations of the model are:

$H^s = NBR + \max [0, BR (i -^{+} i_d)]$ ...(1)

$D^d = D(i^-, y^+)$ ...(2)

$C^d = C(i^+, y^+)$ ...(3)

$T^d = T(i^+, y^+)$ ...(4)

$R^d = k_1 D^d + k_2 T^d$ ...(5)

$E^d = E(i^-, i_d^{+})$ ...(6)

$H^d = R^d + C^d + E^d$ ...(7)

$H^s = H^d$ ...(8)

$M = C^d + D^d$ ...(9)

where,

H^s = Supply of base money, NBR = Non-borrowed reserves, BR = Borrowed reserves, I_d = Discount rate, D^d = Demand for demand deposits, C^d = Demand for currency, T^d = demand for time deposits, R^d = Demand for required reserves, E^d = Demand for excess reserves, H^d = Demand for base money, i = Nominal interest rate, Y = Nominal income, k_1 = Required reserve ratio for demand deposits, k_2 = Required reserve ratio for time deposits, $M_1 = M_1$ Money supply

Signs above the functional arguments represent signs of partial derivatives.

Model B: Pure Loan Demand Model

The equations of the model are:

$L^d = L(i_L,....)$ ...(10)

$iL = (1+m)\, i_F$ ...(11)

$L^s + R^d + E^d = D + T^d$ ...(12)

$T^d = tD$ ...(13)

$R^d = k_1 D + k_2 T^d$ ...(14)

$E^d = eD$ ...(15)

$C^d = cD$ ...(16)

$H^d = R^d + C^d + E^d$ ...(17)

$L^s = L^d$ ...(18)

$M = C^d + D$ ...(19)

where

L^d = Bank loan demand, i_L = Bank loan interest rate, m = Bank mark-up, L^s = Bank loan supply and i_F = Federal funds rate

Using (10) – (15) and (18) yields

$D = L[(1+m)i_F,....]/(1+t-k_1-k_2t-e)$ ...(20)

Substituting (16) and (20) into (17) yields

$H^d = (c + k_1 + k_2t + e)\, L[\, (1+m)i_F,...]/ (1 + t - k_1 - k_2t - e)$ ...(21)

While substituting (16) and (20) into (19) yields

$M = (1 + c)\, L[(1+m)i_F, ...]/ (1 + t - k_1 - k_2t - e)$ ...(22)

Model C: A Mixed Portfolio – Loan Demand Model

The equations of the model are as below:

$C^d = C(i_D^-, i_T^-, i_B^-, y^+)$ ...(23)

$D^d = D(i_D^+, i_T^-, i_B^-, y^+)$ ...(24)

Table 1: Co-integration with Unrestricted Intercepts and Trends in VAR Co-integration LR Test Based on Maximal Eigen Value of Stochastic Matrix

Null	Alternative	Statistic	95 Per Cent Critical Value	90 Per Cent Critical Value
r = 0	r = 1	34.1	24.4	22.3
r ≤ 1	r = 2	12.9	18.3	16.3
r ≤ 2	r = 3	3.6	11.5	9.8

Table 2: Co-integration with Unrestricted Intercepts and Trends in VAR Co-integration LR Test Based on Trace of Stochastic Matrix

Null	Alternative	Statistic	95 Per Cent Critical Value	90 Per Cent Critical Value
R = 0	r ≥ 1	50.7	39.3	36.3
r ≤ 1	r ≥ 2	16.6	23.8	21.2
r ≤ 2	r = 3	3.6	11.5	9.8

Table 3: Co-integration with Unrestricted Intercepts and Trends in VAR Choice of Number of Co-integrating Relations Using Model Selection Criteria

Rank	Maximised LL	AIC	SBC	HQC
r = 0	1550.0	1532.0	1501.7	1519.8
r = 1	1593.9	1570.9	1532.2	1555.3
r = 2	1598.8	1572.8	1529.0	1555.1
r = 3	1600.0	1573.0	1527.6	1554.6

Table 4: Estimated Co-integrated Vectors in Johansen Estimation with Unrestricted Intercepts and Trends in VAR

213 observations from 1980M7 to 1998M3, order of VAR = 4 and chosen r =1.
List of variables included in the co-integrating vector: LNFC, LM0 and Z3

	Vector 1
LNFC	–1.0237
	(–1.0000)
LM0	–5.8405
	(–5.7055)
Z3	–1.9995
	(–1.9533)

Table 5: Restricted Co-integrated Vectors in Johansen Estimation (Normalised in Brackets) Converged after 1 Iterations Co-integration with Unrestricted Intercepts and Unrestricted Trends in VAR

213 observations from 1980M7 to 1998M3, order of VAR = 4 and chosen r =1.
List of variables included in the co-integrating vector: LNFC, LM0 and Z3
List of imposed restriction(s) on co-integrating vectors: a1 = 0

	Vector 1
LNFC	0.00
	(None)
LM0	6.6729
	(None)
Z3	2.2087
	(None)

LR Test of Restrictions: CHSQ (1) = 6.9089 [.009]

Table 6: Restricted Co-integrated Vectors in Johansen Estimation (Normalised in Brackets) Converged after 1 Iterations Co-integration with Unrestricted Intercepts and Unrestricted Trends in VAR

List of variables included in the co-integrating vector: LNFC, LM0 and Z3
List of imposed restriction(s) on co-integrating vectors: a2 = 0

	Vector 1
LNFC	1.8095
	(-1.0000)
LM0	0.00
	(0.00)
Z3	.0079293
	(-.0043821)

LR Test of Restrictions: CHSQ (1) = 15.8721 [.000]

Table 7: Restricted Co-integrated Vectors in Johansen Estimation (Normalised in Brackets) Converged after 1 Iterations Co-integration with Unrestricted Intercepts and Unrestricted Trends in VAR

List of variables included in the co-integrating vector: LNFC, LM0 and Z3
List of imposed restriction(s) on co-integrating vectors: a3 = 0

	Vector 1
LNFC	1.7176
	(–1.0000)
LM0	.32422
	(–.18876)
Z3	0.00
	(0.00)

LR Test of Restrictions:
CHSQ (1) = 15.4395 [.000]

Table 8: ECM for Variable LM0 Estimated by OLS Based on Co-integrating VAR(4)

Dependent variable is dLM0
213 observations used for estimation from 1980M7 to 1998M3

Regressor	Coefficient	Standard Error	T-Ratio [Prob]
Intercept	.50925	53885	.94508[.346]
Trend	.6191E-3	.6834E-3	.90588[.366]
dLNFC1	.10035	.15072	.66581[.506]
dLM01	–.36300	26716	–1.3587[.176]
dZ31	.039270	.090696	.43298[.665]
dLNFC2	.45400	.14488	3.1336[.002]
dLM02	–1.0936	.26219	–4.1709[.000]
dZ32	–.28950	.089657	–3.2290[.001]
dLNFC3	.66595	.14605	4.5596[.000]
dLM03	– 42895	.27047	–1.5859[.114]
dZ33	–.12904	.087339	–1.4775[.141]
ecm1(–1)	–.027153	.030006	–.90491[.367]

Where,
dLM0 = LM0-LM0(–1)
dLNFC1 = LNFC(–1)-LNFC(–2)
dLM01 = LM0(–1)-LM0(–2)
dZ31 = Z3(–1)-Z3(–2)
dLNFC2 = LNFC(–2)-LNFC(–3)
dLM02 = LM0(–2)-LM0(–3)
dZ32 = Z3(–2)-Z3(–3)
dLNFC3 = LNFC(–3)-LNFC(–4)
dLM03 = LM0(–3)-LM0(–4)
dZ33 = Z3(–3)-Z3(–4)
ecm1 = 1.8095*LNFC 0.00*LM0 + .0079293*Z3
and the computed F-stat: F(11, 201) = 7.6336 [.000]

$$T^d = T(i_D^-, i_T^+, i_B^-, y^+) \quad ...(25)$$
$$H^d = C^d + kD \quad ...(26)$$
$$H^s = NBR(i_F^+, A_1^+) + BR(i_F^+ - i_d) \quad ...(27)$$
$$H^d = H^s \quad ...(28)$$
$$L^d = L(i_L^-, i_B^+, A_2^+) \quad ...(29)$$
$$MR_B = i_B + p \quad ...(30)$$
$$MR_L = i_L - c_L \quad ...(31)$$
$$MC_F = MR_F = i_F \quad ...(32)$$
$$MC_D = (i_D + c_D)/(1-k) \quad ...(33)$$
$$MC_T = i_T - c_T \; c_T < c_D \quad ...(34)$$
$$MC_{BR} = i_d + v\,(BR^+) \quad ...(35)$$
$$MR_B = MR_L = MR_F = MC_F = MC_D = MC_T = MC_{BR} \quad ...(36)$$
$$Y = Y(L^{d+}) \quad ...(37)$$
$$L^s + S + kD^d = D^d + T^d \quad ...(38)$$
$$L^s = L^d \quad ...(39)$$

Where

i_D = Interest rate on deposits, i_T = Interest rate on time deposits, i_B = Interest rate on bonds, A_1 = Expansionary monetary policy variable, A_2 = Positive loan shift variable, MR_j = Marginal revenue on asset j, MC_j = Marginal cost of liability j, P = Liquidity premium on bonds relative to loans, c_L = Constant marginal cost per rupee loaned of monitoring loans including provision for expected defaults per rupee loaned, c_D = Constant marginal cost per rupee deposited of administering deposit accounts, c_T = Constant marginal cost per rupee deposited of administering time deposit accounts, Y = Nominal income, S = Bank holding of secondary reserves

TABLE 9: ECM FOR VARIABLE Z3 ESTIMATED BY OLS BASED ON CO-INTEGRATING VAR(4)

Dependent variable is dZ3
213 observations used for estimation from 1980M7 to 1998M3

Regressor	Coefficient	Standard Error	T-Ratio [Prob]
Intercept	-1 5224	1 7566	-.86672[.387]
Trend	- .0019231	0022502	-.85462[.394]
dLNFC1	- 22072	43767	-.50431[.615]
dLM01	086940	77694	.11190[.911]
dZ31	- 53404	.26342	-2.0274[044]
dLNFC2	-1 1236	.41994	-2.6757[.008]
dLM02	2.4094	.76270	3.1591[002]
dZ32	49747	.26055	1 9093[058]
dLNFC3	-1 4171	.42376	-3.3442[.001]
dLM03	13106	78605	.16674[.868]
dZ33	- 028069	.25379	- 11060[.912]
ecm1(-1)	075625	.087193	.86732[.387]

Where
ecm1 = 1.7176*LNFC + .32422*LM0 0 00*Z3
The computed F-stat· F(11, 201) = 9.024

TABLE 10: ECM FOR VARIABLE LNFC ESTIMATED BY OLS BASED ON CO-INTEGRATING VAR(4)

Dependent variable is dLNFC
213 observations used for estimation from 1980M7 to 1998M3

Regressor	Coefficient	Standard Error	T-Ratio [Prob]
Intercept	2 7271	1.1399	2.3924[.018]
Trend	0033928	.0014331	2.3675[.019]
dLNFC1	- 054227	.079526	-.68188[496]
dLM01	-.44309	.15512	-2.8564[.005]
dZ31	- 12905	.052765	-2.4457[.015]
dLNFC2	.14241	.076522	1.8611[.064]
dLM02	- 55025	14972	-3.6753[.000]
dZ32	-.16154	.051073	-3.1628[.002]
dLNFC3	49784	077278	6.4423[.000]
dLM03	· 62174	.15038	-4.1344[.000]
dZ33	- 19729	048527	-4.0656[.000]
ecm1(-1)	- 037977	016057	-2 3651[.019]

Where
ecm1 = 0.00*LNFC + 6 6729*LM0 + 2.2087*Z3
The computed F-stat· F(11, 201) = 8 1225[.000]

Appendix 2

Firstly, from the three tests of co-integration, viz, Maximal Eigen value of the Stochastic Matrix, Trace of the Stochastic Matrix and Model Selection Criteria in terms of SBC values, we find one co-integrating vector (r = 1) among the variables. These results are reported in the Tables 1, 2 and 3. The unconstrained equation is given in Table 4.

Secondly, we restricted the co-integrating vector by successively taking the coefficients as equal to zero. The resulting CHSQ statistics in all the three cases (reported in Tables 5, 6 and 7) are above the critical value for the null of the coefficient being equal to zero, thus we reject the null of the coefficient being zero. Our results in terms of Granger block non-causality in differences are thus corroborated with this analysis in terms of the co-integrating VAR.

Thirdly, we give the error correction terms for each of the variables (Tables 8, 9 and 10). As can be seen from them, F-values being significant in all the ECM equations, none of the endogenous variables in the co-integrating VAR is weakly exogenous. We have negative signs for the two ECM terms for DLM0 and DLNFC (Tables 8 and 10). While ECM (-1) for DLNFC is negative and significant, thus being stable in its short-run movements, the other two variables are random in their short-run movements.

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Modelling the Implicit T-Bill Yield

Some Preliminary Results

Abhay Pethe
Chiragra Chakrabarty

The Treasury Bills market has a position of central importance in the context of policy making in a liberalised regime, especially vis-a-vis *the financial sector. The paper begins with discussion of auction design which is not really its focus. It merely underlines the possibilities and hindrances that exist towards taking up constructive design and evaluatory exercises that would make the process efficient. An efficiently functioning market sets the tone for transmission of policy signals to decision-making agents in the economy.*

It is in this context that the paper makes an attempt to model and understand the cut-off yield for T-Bills. The process is looked at from the point of view of the RBI, the merchant banker of the government and an independent monetary authority, it is also viewed from the point of view of the players in the market who demand these T-Bills. The exercise is conducted using co-integration technique and the OLS for the 14-day T-Bills. It is also argued that for evaluatory as well as forecasting/modelling exercises to be carried out, data gaps need to be eliminated. The paper ends by underlining the tentative nature of the research reported here and suggesting fruitful lines for further research in this area.

I
Introduction

THE research presented in this paper in no way represents a completely finished and polished product. It is indeed more in the nature of a report of tentative results and an outline of a research agenda. The excuse for presenting the paper nevertheless derives from the hope that given the discerning and knowledgeable readership of *EPW*, we may be able to get some useful inputs which would help in furthering and refining our efforts. The paper comprises of six sections in all, including the present one. In the next section we underline the importance and the changed nature of the fiscal-monetary co-ordination problem, especially from the perspective of the focal point of our interest. In the third section we deal with the T-Bills market in India and comment on the related issues of auction design and data availability. In the fourth section we present our model and results pertaining to the 14-day T-Bills. In the fifth and penultimate section we, very briefly, sketch an agenda for further (related) research. In the final section we conclude.

II
Fiscal–Monetary Co-ordination Problem

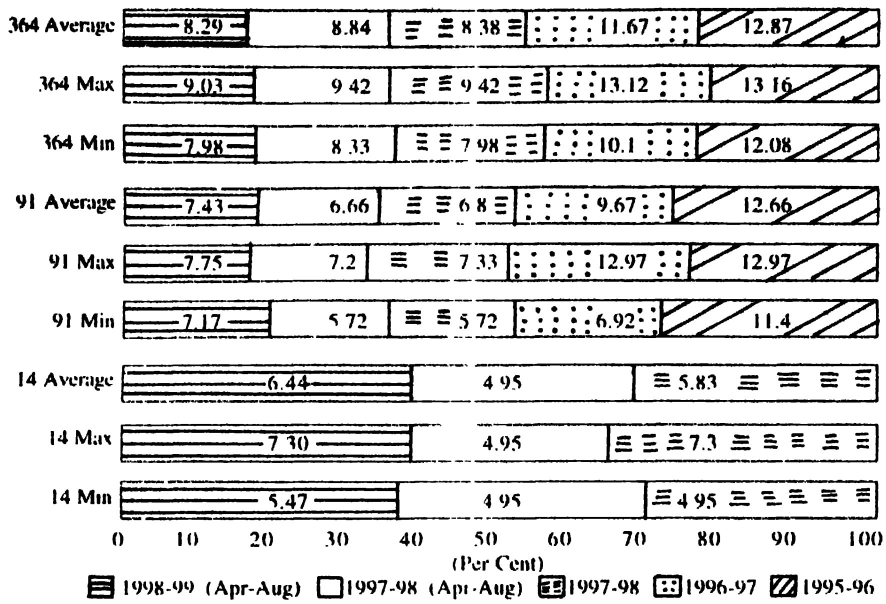
The Indian economic crisis of the early 1990s is a part of the folklore of contemporary economic history and need not detain us here. One of the off-shoots of that episode was the paradigmatic change in the policy domain related to the macro-management of the economy. Again, whether the initiating impulse came from indigenous wisdom or was the result of the duress exercised by international organisations is hardly relevant for us. The fact remains that there were momentous and substantive steps taken in the domain of policy making, not in the least prompted by the change in the macro-economic environment. The macro framework was sought to be liberalised and opened up which implied that the economy that for so long was *directed*, had now to be *co-ordinated*. Various institutional changes had to be brought about and indeed all the institutions (old and new) had to adapt and traverse the difficult and steep learning curve – a process that is still underway.

India is of course not the only country undergoing these changes. Indeed, it is clear that, in a sense, the entire world economy is in transition. Apart from the individual countries facing the crises, international institutions have been at the forefront of searching and recommending solutions. There has now emerged a set of guidelines comprising steps to be taken to remedy the situation. This has broadly been termed as 'Washington Consensus'. Naturally this package has been put together in a remote fashion and is general enough to attract criticism from many quarters. Whilst it may be discounted and ignored when the criticism is obviously based on purely ideological grounds or on partisan politics, it is a different matter when such criticism emanates from serious academics. It is to be noted that whilst there is no great quarrel about the broad and general strokes, the specific details about 'how much' and 'how far' the programme needs to be pushed is quite another matter. This is perhaps natural and we leave it there as of being of no particular relevance to the focus of our paper.

One of the components of the stabilisation-structural adjustment programme on which there is a consensus is the common understanding in the economic management that large and sustained fiscal deficits result in excessive domestic and external borrowings or monetary expansion, with concomitant problems for the domestic financial sector. This may take different forms such as inflation, low growth, chronic overvaluation of local currency, loss of competitiveness leading to current account deficits [Rao and Nallari 1996]. We may note here that whilst at the macro level this is acceptable, the precise content of *where* to cut government expenditure and *to what extent* is indeed is a bone of contention. This is where the controversy regarding different kinds (extent and targeting) of subsidies as well as the fact of government cutting down on its capital expenditure in its budget comes in.

In the earlier times the problem of fiscal-monetary co-ordination was just that of proper enunciation of goals by the government and then establishing proper communication between its finance ministry and the RBI. This was because of the existence of the ad hocs/on tap T-Bills. The havoc that it brought about and the problems it caused are well known. Thanks to the new paradigm of macro-management in general and specifically the agreement signed between the ministry of finance and the RBI, the ad hocs have been phased out. This has meant some autonomy to the RBI which may now act upon its independently perceived monetary stance.

Graph 1: Yield Structure of Treasury Bills for Last Three Years



Of course being autonomous *de jure* is still different from acting autonomous *de facto*. The latter requires a new kind of mind-set that will act as an autonomous agent (although acting within the broad norms of national agenda but not as another department of the government of the day). This has led to the other area of consensus which is the realisation that with withdrawal of the 'administered regime' and coming into play of incentive based initiatives, getting the prices right becomes vitally important. One such price of particular importance, especially from the perspective of this paper, is the term structure of interest rates. Interest rates are important for allocational and investment decisions for they provide the opportunity cost structure in the economy. In a developed and integrated financial structure, one of the chief roles of the Central Bank is to provide *a reference rate which signals the prevailing status as well as the intentions of policy-makers*. Even in India the RBI has changed its focus from monetary targeting to interest rate targeting and so have some of the academics. The reference rate of course cannot be announced, but must emerge with market consensus, as must the term structure. Some of our preliminary results suggest that there is no co-integration between the different T-Bill rates [Chakrabarty 1998]. Given that sovereign risk is no risk the cross-sectional time preference ought to be stable and hence there should be a stable relation. Thus, it would appear that different T-Bills perform different macro-management functions, rather than just reflecting time preference structure. It is in this overall context that understanding and being able to predict the cut-off yield as well as the development of thick, well-regulated and hence efficient secondary debt market in Treasury Bills assumes importance. Let us now turn to a brief discussion of the T-Bills market in India.

III
The T-Bills Market

During the 1980s and 1990s, significant reforms to develop government securities markets have been undertaken in many countries, including developing as well as industrialised countries and economies in transition. In many of these countries, the authorities have played an active role in fostering the development of institutional structure of the market, active on the self-evident premise that an appropriate structure is needed for the efficient functioning of the markets. A central proposition of this literature is that the pricing of asset cannot be determined independently o the institutional structure of the marke (particularly the organisation an mechanics of trading). If the structure o government securities markets affect prices (interest rates), by extension it affect the cost of national debt. In the contex of the new role that the RBI has bee called upon to play, it becomes importan that it designs the auctions for selling th T-Bills in an optimal fashion. Also i becomes mandatory that certain kinds o data be made available to the public a large and researchers in particular so tha evaluatory exercises be undertaken. To get an idea of the growth in the T-Bill of different tenures see Table 1 and th corresponding yield structure is shown in Graph 1 and Graph 1A. Let us now briefl look at these issues especially in the India context and suggest some changes tha would enhance their utility.

Auction Design

Auctions are increasingly bein researched especially in the context o widespread growth of government deb and yet there are no ready-made answer here. Auctions are stylised markets wit well-defined rules used to extrac information and modelled in the contex of game theory. A basic taxonomy o auctions was proposed some time ago b Vickrey (1961) and represents the begin ning point of all subsequent research However, despite Vickrey's seminal con tribution in establishing the revenu equivalence for different auction format in early 1960s, most subsequent advance have been made with respect to format that bear very little resemblance to actua auctions of government securities.

There are various ways in which auction may be classified. In the context of divisibl multiple units scheme (which comes clos

Table 1: Auctions of Treasury Bills – Summary Statistics

(Amount in rupees crore

S No Item	1997-98	1996-97	1995-96	April-August 1998-99	April-August 1997-98
(I) Gross Issues					
(a) 14-day Treasury Bills*	69,236 6			8,150.0	21,423.0
(b) 91-day Treasury Bills	13,200 0	25,200.0	24,050 0	6,402.0	6,050 0
(c) 364-day Treasury Bills	16,246 6	8,240.6	1,874.7	1,500.0	10,069 (
(II) Net Issues					
(a) 14-day Treasury Bills*	69,236 6			1,160 0	21,423 0
(b) 91-day Treasury Bills	-4,100 0	-800.0	5,700 0	2,427 0	-700 0
(c) 364-day Treasury Bills	8,005 9	6,365.9	6,288.5	-8,570 0	6,854 0
(III) Outstanding at end of Period					
(a) 14-day Treasury Bills*	240.0			1,400 0	6,130.0
(b) 91-day Treasury Bills	1,600.0	5,700.0	6,500.0	4,027.0	5,000 0
(c) 364-day Treasury Bills	16,246.6	8,240.6	1,874.7	7,677.0	15,095.0

Note: * Pertains to the 14-day auction Treasury Bills which were introduced on June 6, 1997.
Source: RBI Annual Report, 1997-98.

to T-Bills auctions that we are interested in here) the auctions may be distinguished on the basis of whether the individual has to pay the price bid by her if successful or must pay the minimum price that would exhaust the issue. In the earlier case it is termed as 'multi-priced' and in the latter 'uniform-priced' auctions. Also the auctions may be distinguished on the basis of whether the bids are submitted in the 'sealed form' or in public (open outcry) form. Auctions may be classified on the basis of whether the bidders attach 'private' value or 'common value' to the commodity being auctioned. For more details about auctions and price settings, as well as details of conduct of auctions in India, see Chakrabarty (1998).

Most T-Bill auctions fall into the category of multi-price sealed bid auctions also known as the first price auctions when referring to single unit and as discriminatory when multiple units are involved. There are arguments both in favour and against the relative superiority of multi-price versus the uniform price formats from the revenue collection angle. In the standard private value model, the auctioneer's effort to extract the surplus below the demand curve is exactly offset by the shift in the demand curve itself. Subsequent research has tried to extend the equivalence result to less restrictive conditions. Holt (1980) and Harris and Raviv (1981) for example have extended the analysis to the case of risk aversion. When bidders are risk averse, they place premium on auction formats that present them with less uncertainty. A line of research more relevant to T-Bills is the common value approach. Following earlier studies, Milgrom and Weber (1982) showed that revenue potential of each of the formats could be ranked on the basis of each format's ability to mitigate the winner's curse. However these are restrictive results and do not necessarily extend to the T-Bill auctions.

TABLE 3: DATA USED FOR SCHEDULED COMMERCIAL BANK'S MODEL

Date	M3	WPI	CALL	FOREX	14 Day T-Bill	91 Day T-Bill	364 Day T-Bill
July 4, 1997	16.3	4.4	5.32	–0.03	4.95	6.96	8.83
July 18, 1997	16.7	4.2	1.36	–0.03	4.95	6.75	8.53
August 1, 1997	16.4	4	4.76	–0.98	4.95	6.65	8.36
August 15, 1997	16.5	3.7	5.87	–0.49	4.95	6.59	8.33
August 29, 1997	15.8	3.8	5.97	0.38	4.95	6.59	8.33
September 12, 1997	16.2	4	4.96	0.14	4.95	6.88	8.47
September 26, 1997	15.6	3.8	7.31	0.17	4.95	6.88	8.47
October 10, 1997	16.5	4.1	3.39	–0.39	4.95	6.88	8.47
October 24, 1997	17	3.5	7.83	–2.52	4.95	6.22	7.98
November 7, 1997	17.7	3.2	7	–0.21	4.95	6.22	7.98
November 21, 1997	17.5	4.1	5.89	–0.05	7.04	6.22	7.98
December 5, 1997	17.3	4.5	9.17	–1.15	7.04	7.21	7.98
December 19, 1997	15.5	5.4	7.51	4.31	7.04	7.21	7.98
January 2, 1998	16.6	5.8	8.61	0.44	7.04	7.21	7.98
January 16, 1998	15.6	5.3	53	–0.28	7.04	7.33	7.98
January 30, 1998	16.4	5.4	8.43	–0.46	7.3	7.33	7.98
February 13, 1998	16	5.1	9.04	–0.08	7.3	7.33	7.98
February 27, 1998	16.7	4.9	8.95	–0.38	7.3	7.33	7.98
March 13, 1998	17	5	8.13	0	7.3	7.33	7.98
March 27, 1998	17.1	4.8	7.09	-0.05	7.3	7.33	7.98
April 10, 1998	17.3	5.4	7.19	-2.46	7.3	7.33	7.98
April 24, 1998	17.2	6.1	6.24	-2.14	7.04	7.17	7.98
May 8, 1998	17.5	6.5	7.48	-0.38	6.26	7.33	7.97
May 22, 1998	17.1	6.9	5.47	0.05	5.99	7.33	7.97
June 19, 1998	17.1	6.9	5.47	0.05	5.99	7.33	7.97

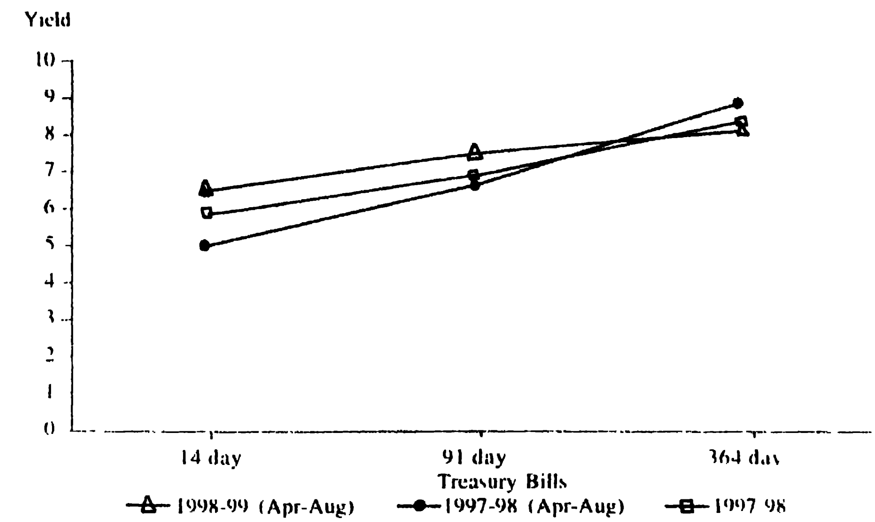
TABLE 2. DATA USED FOR RBI'S MODEL

Date	CBA	NCBA	DEVPR	NA	TI	WAP	WAY	IYACP	CP	AMTOUT	SECMIN	SECMAX	RBI	Bank	State	Others
July 4, 1997	1327	0	1327	0	1327	99.81	4.95	4.95	99.81	2327	0	0	0	3678	50	13
July 18, 1997	2920	0	2920	0	2920	99.81	4.95	4.95	99.81	4990	1.99	4.95	0	4928	50	12
Aug 1, 1997	3011	0	3109	98	3109	99.81	4.95	4.95	99.81	6029	3.99	4.95	0	3029	75	5
Aug 15, 1997	3005	0	3005	0	3005	99.81	4.95	4.95	99.81	6114	4.49	4.95	0	5879	0	235
Aug 29, 1997	3125	0	3125	0	3125	99.81	4.95	4.95	99.81	6130	4.95	0	0	5855	0	275
Sep 12, 1997	4150	0	4150	0	4150	99.81	4.95	4.95	99.81	7275	4.95	4.99	0	7000	0	275
Sep 26, 1997	4047	0	4047	0	4047	99.81	4.95	4.95	99.81	8197	4.95	4.95	0	3920	125	2
Oct 10, 1997	5425	0	5425	0	5425	99.81	4.95	4.95	99.81	9472	4.95	4.95	0	9095	375	2
Oct 24, 1997	5200	0	5200	0	5200	99.81	4.95	4.95	99.81	10625	4.95	5.49	0	9873	750	2
Nov 7, 1997	255	0	255	0	255	99.81	4.95	4.95	99.81	10880	3.99	6.43	0	4850	600	5
Nov 21, 1997	5300	0	5100	100	5400	99.81	4.95	4.95	99.81	5655	4.95	0	0	5050	600	5
Dec 5, 1997	205	0	225	20	225	99.73	7.04	7.04	99.73	2535	3.99	5.09	0	2225	300	10
Dec 19, 1997	300	0	365	65	365	99.73	7.04	7.04	99.73	590	4.74	7.04	0	80	500	10
Jan 2, 1998	5	0	30	25	30	99.73	7.04	7.04	99.73	395	6.08	7.04	0	70	300	25
Jan 16, 1998	210	0	235	25	235	99.73	7.04	7.04	99.73	265	5.98	7.23	0	12	200	53
Jan 30, 1998	35	0	135	100	135	99.73	7.04	7.04	99.73	433	7.03	7.25	0	42	200	128
Feb 13, 1998	20	0	320	300	320	99.72	7.3	7.3	99.72	320	0	0	0	19	300	1
Feb 27, 1998	170	0	175	5	175	99.72	7.3	7.3	99.72	495	9.03	10.22	0	43	450	2
Mar 13, 1998	340	0	395	55	395	99.72	7.3	7.3	99.72	570	6.48	9.97	0	33	450	87
Mar 27, 1998	90	0	90	0	90	99.72	7.3	7.3	99.72	485	9.72	10.47	0	33	450	87
Apr 10, 1998	310	0	350	40	350	99.72	7.3	7.3	99.72	440	6.98	9.99	0	245	200	101
Apr 24, 1998	90	0	196	106	196	99.72	7.3	7.3	99.72	546	4.86	9.98	0	245	200	101
May 8, 1998	100	100	100	0	200	99.73	7.04	7.04	99.73	300	6.13	7.88	19	82	100	99
May 22, 1998	100	700	100	0	800	99.76	6.26	6.26	99.76	1300	6.18	9.97	20	124	1100	56
Jun 19, 1998	100	400	100	0	500	99.77	5.99	5.99	99.77	1300	4.98	6.28	30	75	1100	95

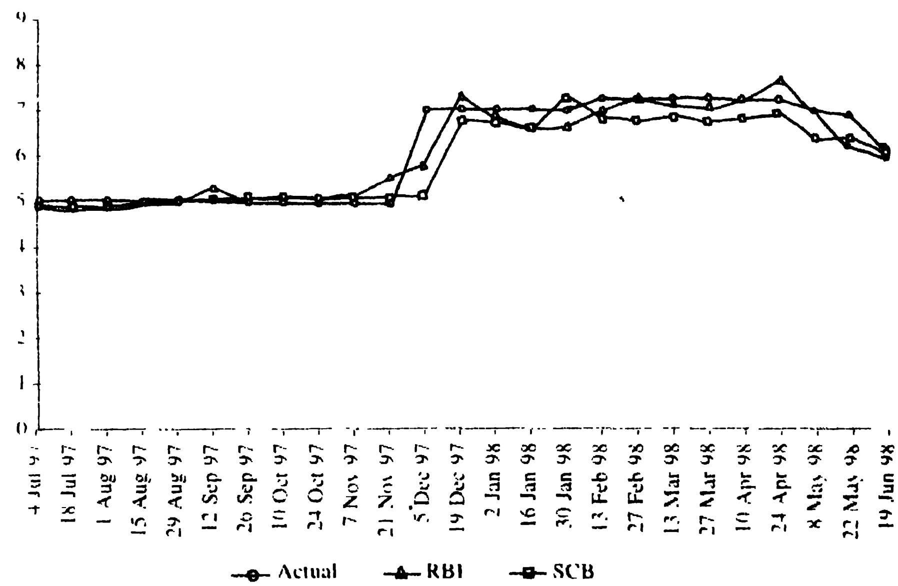
CBA = Competitive Bid Accepted
NCBA = Non-Competitive Bid Accepted
DEVPR = Devolvment on Primary Dealers
NA = Notified Amount
TI = Total Issue
WAP = Weighted Average Price
WAY = Weighted Average Yield
AMTOUT = Amount Outstanding
SECMIN = Minimum Secondary Market Price
SECMAX = Maximum Secondary Market Price
RBI = 14 day T-bill outstanding amount with RBI
Bank = 14 day T-bill outstanding amount with commercial bank
State = 14 day T-bill outstanding amount with state government
Others = 14 day T-bill outstanding amount with others

In this case each bidder presents an entire demand schedule rather than a single price and this dramatically widens the strategic possibilities and the set of equilibria. Another interesting area has to do with the number of bidders. Whilst greater the number (thickness that is brought up whilst discussing the Indian situation) the greater will be the competition, it also reinforces the winner's curse. Thus there has to be an optimal number of bidders and more need not necessarily be better. However *the broad consensus continues to be that wide participation should increase auction revenue*. Another prediction that most theoretical models tend to agree on is that more information the bidders have the less will be their profits and more will be the auctioneer's revenue. The intuition is rooted in the winner's curse and accordingly it will be in the auctioneer's interest to reveal more information. As the general results on the revenue potential of various auction formats are not available, studies have been geared towards studying special factors that may tilt the balance towards one format rather than the other, especially *vis-a-vis* multi-price and uniform price formats. In India too the RBI has switched to the uniform pricing format. Since cornering and collusive behaviour is particularly of interest to the policy-makers, the presumed argument could be that uniform price auctions would foster lower cost of bid preparation, greater bidders' participation and fewer incentives for bidders to pool and place their bids through brokers to collude and corner the market. However, the jury is still out on this and Back and Zender (1992) have argued precisely the opposite that uniform price auctions may provide greater incentive to collude. From the allocational point of view however, Maskin (1992) has shown that from common value stance, and if the informational asymmetry is not too large, uniform price format emerges as a dominant format. These are interesting puzzles especially for India which is just starting out in her T-Bill auction venture. For conducting research much more openness in terms of data is a prerequisite. It is to the status of data availability that we now turn.

GRAPH 1A: YIELD CURVE FOR LAST TWO YEARS



GRAPH 2 FORECASTED VALUES OF 14 DAY T-BILL FROM RBI AND SCHEDULED COMMERCIAL BANK MODEL AND ACTUAL VALUES



DATA AVAILABILITY

Treasury notes and bonds of various maturities are issued periodically through discriminatory price auctions (very recently the RBI has taken the decision to switch to uniform price auctions in case of T-Bills). The treasury announces the quantities of notes and bonds of different maturities that would be sold in upcoming auctions and accepts competitive and non-competitive bids on the auction date. The competitive bidders, viz, the designated primary dealers and scheduled commercial banks submit bids for price quantity pairs. The non-competitive bidders submit tenders for quantities that they are willing to buy at the quantity-weighted price of the accepted competitive bids. Others are required to deposit 2 per cent of the amount bid along with tenders. This transaction cost (since these deposits may be held for two weeks and earn no interest) obviously creates incentives in favour of others bidding through the primary dealers. In addition, the RBI also places a non-competitive bid for quantity announced prior to the auction. The RBI then collects the bids, nets out the non-competitive bids and allocates the balance to the highest bidders among the competitive bidders. The winning bidders make the payments for their allocations on the issues date, which is typically a week from the auctions date.

The transparency in the internal debt segment in the Indian economy in general and in T-Bills market in particular has improved of late. Two major sources of information on internal debt are RBI Annual Report and the Report on Currency and Finance. For details of the kind of data available from the two sources see Pethe and Chakrabarty (1998). The RBI Annual Report gives data on 91- and 364-day T-Bills auctions data for the last five years. The Report on Currency and Finance covers the auctions of 14-day T-Bills in detail.

It covers (a) date of auction, (b) date of issue, (c) number of bids received, (d) face value of amount received with the break up for (i) competitive, (ii) non-competitive, and (iii) total, (e) number of bids accepted, (f) face value of amount accepted with break up, (i) competitive, (ii) non-competitive, and (iii) total, (g) devolvement on primary dealers, (h) minimum offer price (cut-off), (i) implicit yield for minimum offer price, (j) cummulative face value and (k) amount of outstanding bills as on issue price. Thus this is a rather comprehensive coverage of 14-day T-Bill auction although the distributional details of bids are still not available. As compared to this the data on 91-day T-Bill auctions are still not reported in detail, e g, the break up of competitive and non-competitive break up is not available. Thus things like estimation of bond tail distribution or a comprehensive modelling for 91-day T-Bills and looking into some other interesting issues – which we have already noted in the previous section – is still not possible for the general research scholars. Let us now turn to reporting the empirical findings regarding our model for the 14-day T-Bills.

IV
Our Model

In this section we report some of the preliminary results regarding the various variables used for modelling 91- and 364-day T-Bills and the estimation thereof. Next we look at the 14-day T-Bills, discuss the variables of interest from the RBI's as well as the Scheduled Commercial Banks' point of view and present the estimation results. Finally, we put together the two estimates with respect to the 14-day T-Bills and check for co-integration with the actual yields. The data used for our study are presented in Tables 2 and 3.

Preliminary Results for 91 and 364 Day T-Bills

In this section we report some of the preliminary findings with regard to the preliminary data mining and identification of relevant variables for estimating the yield of 91- and 364-day T-Bills. Since the focus of the paper is on 14-day T-Bills the treatment here is perforce of a cursory nature.

In estimating the implicit yield of the 91-day T-Bills, we have kept in mind the Report of the Committee to Review the Working of the Monetary System according to which, the T-Bills should be developed as active monetary instruments and constitute an ideal short-term paper in the money market. What comes in the way of such a development is the fact that the yield is not market related. It is believed that the 91-day T-Bill discount rate should be marginally positive in real terms. This means that the nominal rate of discount should be higher than the expected change in the price level. The real yield on the T-Bills should meet the expectations of the capital market. We have not directly modelled these expectations but have proxied them by taking the weighted average of secondary market yields of Treasury Bills. The procedure for this may be understood by looking at Table 4. Apart from economic common sense based on received wisdom in the profession, we have identified other variables by constructing a large correlation matrix. Using the trusted OLS technique, we tried out different equations using variables like one fortnightly lag of M3 and growth of WPI (LM3 and LWPI respectively) to catch the monetary policy stance, one and two lag implicit yield at cut-off price of 91-day

Table 4: Weighting Pattern

Date	AMTF	MINF	MAXF	AVERAGEF	AMTN	MINN	MAXN	AVERGEN	AMTT	MINT	MAXT	AVERGET	WAVERAGE
July 4, 1997	0	0	0	0	73	4.12	6.88	5.5	461	4.98	8.85	6.91	6.71
July 18, 1997	121	1.99	4.95	3.47	137	2.49	6.48	4.49	489	6.08	8.18	7.13	6.05
August 1, 1997	221	3.99	4.95	4.47	132	4.24	6.58	5.41	203	5.24	8.23	6.73	5.52
August 15, 1997	200	4.95	4.95	4.95	73	6.23	6.63	6.43	121	3.89	7.98	5.93	5.52
August 29, 1997	200	4.95	4.95	4.95	106	5.23	6.98	6.11	362	5.19	8.73	6.96	6.22
September 12, 1998	205	4.95	5.49	5.22	15	4.99	5.48	5.24	429	1.99	8.65	5.32	5.29
September 26, 1997	5	4.95	4.95	4.95	21	4.24	6.68	5.46	343	3.99	9.72	6.86	6.75
October 10, 1997	10	4.95	4.95	4.95	146	3	6.88	4.94	512	2.99	8.58	5.78	5.58
October 24, 1997	250	4.95	5.19	5.07	45	5.73	6.98	6.36	579	4.89	8.2	6.54	6.11
November 7, 1997	205	4.95	5.33	5.14	133	5.09	6.68	5.88	342	4.59	8.18	6.38	5.91
November 21, 1997	110	4.79	4.99	4.89	390	2.99	6.73	4.86	467	6.23	7.98	7.11	5.95
December 5, 1997	289	3.99	5.09	4.54	70	4.24	6.78	5.51	766	4.49	8.1	6.29	5.79
December 19, 1997	75	6.08	7.04	6.56	82	5.49	7.98	6.73	377	5.98	10.47	8.23	7.76
January 2, 1998	31	7.03	7.25	7.14	61	5.73	8.43	7.08	408	4.99	8.78	6.88	6.92
January 16, 1998	208	6.49	8.98	7.73	72	7.48	9.23	8.36	160	7.23	9.53	8.38	8.07
January 30, 1998	0	0	0	0	214	7.48	29.92	18.7	633	10.7	29.92	20.32	19.91
February 13, 1998	37	6.48	9.97	8.23	76	7.48	9.97	8.73	864	8.23	13.31	10.77	10.51
February 27, 1998	116	6.98	9.99	8.49	145	7.48	9.87	8.68	460	3.39	13.01	8.2	8.34
March 13, 1998	193	4.98	9.48	7.23	46	7.98	10.64	9.31	326	8.73	11.97	10.35	9.20
March 27, 1998	182	5.98	8.73	7.36	37	8.73	9.27	9	674	5.98	10.47	8.23	3.08
April 10, 1998	1	4.99	4.99	4.99	0	0	0	0	604	1.87	9.17	5.52	5.52
April 24, 1998	123	6.13	7.88	7.01	110	7.31	7.68	7.49	501	6.23	8.97	7.6	7.48
May 8, 1998	166	5.49	5.98	5.74	20	7.08	7.13	7.11	86	3.99	7.88	5.94	5.93
May 22, 1998	80	5.74	8.97	7.35	113	7.13	11.22	9.17	463	4.84	10.72	7.78	7.9
June 19, 1998	80	5.86	9.00	7.35	113	7.10	11.22	9.20	470	4.84	10.72	7.78	7.9

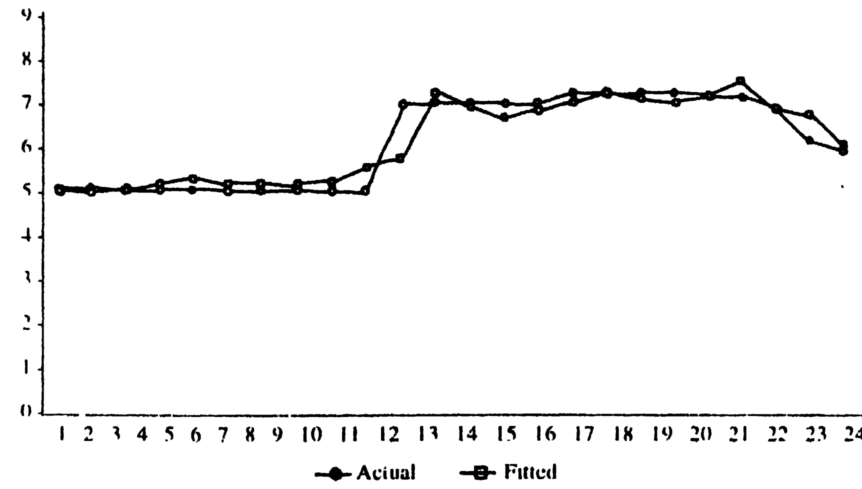
AMTF Amount traded of 14-day T-Bill in the secondary market
MINF Minimum yield of 14-day T-Bill
MAXF Maximum yield of 14-day T-Bill
AVERAGEF Average of Min and max of 14-day T-Bill in the secondary market
AMTN Amount traded of 91-day T-Bill in the secondary market
MINN Minimum yield of 91-day T Bill
MAXN Maximum yield of 91-day T-Bill
AVERGEN Average of Min and max of 91-day T-Bill in the secondary market
AMTT Amount traded of 364-day T-Bill in the secondary market
MINT Minimum yield of 364-day T-Bill
MAXT Maximum yield of 364-day T-Bill
AVERGET Average of Min and max of 364-day T-Bill in the secondary market
WAVERAGE: Weighted average of all three instruments

T-Bills (LNTB and LLNTB respectively), this is meant to catch the own price reflecting local static expectations, two lag implicit cut-off yield of 364-day T-Bill (LLTBILL) to catch the expectational mood in the longer term market, and one and two lags in the secondary market yields (LAVERGEN, LLAVERGEN respectively) to catch the linkage and learning from the secondary markets to primary market. As already noted, the correlation matrix as well as the data availability were the constraining factors in putting together of the story based on regression results. Looking at the t-values and the signs *vis-a-vis a priori* expectations, we chose the equation which had LWPI, LNTB, LLTBILL and LAVERGEN.

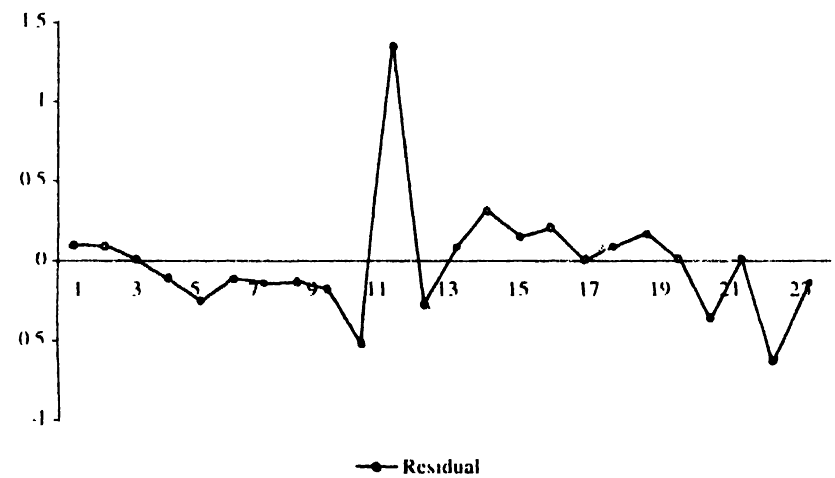
By following a similar procedure we could identify the following variables as being relevant to modelling the 364-day T-Bill yield: LM3 (the measure of money stock), LNTB (the lag of 91-day T-Bill yield, proxy for the term structure for sovereign paper) LTBILL (the lag of 364-day T-Bill yield, reflecting the inertial learning effect via static expectations) and LAVERGEN (the average secondary market price of all the T-Bills, reflecting the linkage and integration between the secondary and primary markets).

The results, to repeat, are of a tentative nature and the model has been constructed from the point of view of the supplier (RBI). The tentative conclusion that we may draw are that whilst the 364-day T-Bill is somewhat (though not as much as in the case of 14-day T-Bill, as we shall see below) related to the money market, the 91-day T-Bill yield is not. It is rather related to the WPI leading one to believe that the monetary authorities use this instrument for control and monitoring of inflation and 364-day T-Bill (as well as 14-day T-Bill) for monitoring and liquidity management in the economy. Let us now turn to the model for 14-day T-Bill.

GRAPH 3A: FORECASTED VALUES OF 14 DAY T-BILL FROM THE COMBINED MODEL OF RBI AND SCHEDULED COMMERCIAL BANK MODEL AND ACTUAL



GRAPH 3B. GRAPHICAL REPRESENTATION OF RESIDUALS



MODEL FOR 14-DAY T-BILLS

The estimation of the model for 14-day T-Bill implicit yield is based on 50 data points. These represent all the auctions that took place in the last year. As already noted, since the data availability in this case is better than in other cases, we have been able to consider some other relevant variables. Also we have been able to model the process from two angles, viz, from the RBI's view point and from the point of view of the players in the market who demand these T-Bills, mainly the scheduled commercial banks. We present the results from RBI's point of view then we move on to the scheduled commercial banks and finally we put the two together to get a composite forecast or estimate.

RBI'S POINT OF VIEW

One of the paramount goals of the monetary authority (in our case the RBI) is to promote a policy of efficient price discovery (or the interest rate determination) which forms a crucial element in the transmission mechanism of monetary policy. Also, RBI as an agent of the central government is responsible for raising the resources (debt) for the government, which it must do at the cheapest possible cost so that the future servicing is least burdensome. In addition, the RBI typically intervenes through the government securities market and its organisation to attain its operating goals. Thus thick and efficiently operating primary and secondary markets are crucial to the efficacy of its policy initiatives.

Again, as in the earlier cases, various variables were tried and finally on the basis of correlation and regression results we modelled the 14-day T-Bill implicit yield at cut-off price to be a function of one lag fortnightly growth in broad money supply (LM3), one lag of 14-day and 91-day T-Bill implicit yield at cut-off (LFTB and LNTB respectively), and weighted average of secondary market yield of all types of T-Bills (LAVERGEN). Co-integration exercise was conducted to identify a co-integrating vector using Johansen Estimation method with the help of Microfit 486. Co-integration helps us to identify long run relationships which given the short time series available in the context of the present exercise have to be interpreted to mean stable relationship. The details of the co-integration as well as the OLS regression from the RBI's point of view are reported in Tables 5A and 5B. The OLS regression equation is as under:

$$FTB = 4.352 + 0.471\ LM3 + 1.089\ LFTB + 0.747\ LNTB + 0.0217\ LAVERGEN$$

As may be seen from the statistical details of the regression equation, the fit is quite good and so are the t-values of all the variables (reflecting the significance) excepting the last variable. This is perhaps due to the fact that 14-day T-Bills are a recently introduced instrument and hence the integration with the other segments of the market is not very great. Rest of the diagnostic statistics too are reasonably good. Let us now look at the scheduled commercial banks' view point.

Scheduled Commercial Banks' Point of View

The players in the government securities market may be divided into two kinds. One, the patient traders, those who are willing to wait. The small retail or household investors or financial investors like LIC, GIC whose trading is motivated by considerations of long-term employment of funds or liquidity are representative of this type of traders. Two, there are the impatient traders, those willing to pay higher intermediation cost in return for immediate trade execution. Institutional traders are of this type, having shorter investment horizons and with trading strategies that are time and information sensitive – for example, dynamic hedging, market arbitrage or spread trading strategies. We will however not make such distinction and only look at the scheduled commercial banks' behaviour as being representative. Given the development of the market in India, they represent a dominant portion of the agent players. Thus at this stage of our research we would be well advised to keep matters simple.

We began the exercise by conducting simple statistical computations such as the mean, standard deviation, correlation for the various relevant variables. For the estimation, we considered variables like competitive bids (CBA), non-competitive bids (NCBA), devolvement on primary dealers and the RBI (DEVPR), notified amount (NA), total issue (TI), weighted average price (WAP), implicit yield at cut-off price (IYACP), cut-off price at auction (CP), amount outstanding one day before the auction (AMTOUT), secondary market minimum and maximum yield for 14-day T-Bills before the auction (SECMIN and SECMAX respectively), RBI's and commercial banks' outstanding amounts of 14-day T-Bills before the auction (RBI and BANK respectively) state's and others outstanding amounts of 14-day T-Bills before the auction (STATE and OTHERS respectively). We concentrated on the variables having reasonable correlation with the IYACP. For example we found that the call money rate and IYACP have positive correlation (0.038). Thus whilst call money rate is completely market determined the 14 day yield is related but a smoother and measured response. The correlation between CBA and IYACP is negative as expected. Thus when there is excess liquidity in the economy the higher demand (reflected in higher competitive bids) pushes the prices up and hence the yield down. The correlation between IYACP and banks' outstanding amount is negative (-0.52). This can support the rationalisation that lower the secondary market price the higher the IYACP, in any case the secondary market price acts as the cap on the primary price, of course given the institutional norms and rigidities. There are many such interesting correlation results around which may be rationalised to be supportive of plausible stories or hypotheses. However, since we have not done anything more rigorous like causality testing these would be largely speculative and hence we leave it at that [Chakrabarty 1998].

There are some noteworthy features of the 14-day T-Bill data. For instance, there is hardly any difference between the cut-off price and the weighted average price. This is particularly noteworthy because in India we have a multi-price system (at least we had it at the time for which we have the data), hence a difference is to be expected. The only time we may expect no difference at all is when the debt market is so developed that the information sets of the players gets updated instantaneously and there is efficient cross flows of information leading to exactly the same bidding strategies (and bids). The other situation could be when the number of players is small and hence collusive activity takes place. Here a group of brokers may form a

Table 5A: Ordinary Least Squares Estimation

Dependent variable is FTB
19 observations used for estimation from 2 to 20

Regressor	Coefficient	Standard Error	T-Ratio [Prob]
C	4 1484	1.8585	2.2322 [042]
LM3	45040	.16152	2 7885 [0 15]
LFTB	1.0669	11829	9 0191 [000]
LNTB	.69298	32469	–2 1343[051]
LAVERGEN	020547	.036305	565941 [580]
R-Squared	.90520	R-Bar-Squared	87812
S E of Regression	39909	F-Stat. F (4,14)	33 4217 [000]
Mean of Dependent Variable	6 1180	S D of Dependent Variable	1 1431
Residual Sum of Squares	2 2298	Equation Log-likelihood	-6 6058
Akaike Info Criterion	-11 6058	Schwarz Bayesian Criterion	-13 9669
DW-statistic	2 4826		

Table 5B. Estimated Co-integrated Vectors in Johansen Estimation (Normalised in brackets)
Co-integration with no intercepts or trends in the VAR

18 observations from 3 to 20 Order of VAR = 1, chosen r = 1, List of variables included in the co-integrated vector: FTB, LWM3, LFTB, LNTB, LAVERGEN
List of I (1) exogenous variables included in the VAR. LM3, LFTB, LNTB, LAVERGEN

	Vector 1
FTB	– 23829
	(-1 0000)
LM3	18739
	(78638)
LFTB	.15987
	(.67092)
LNTB	.076459
	(32086)
LAVERGEN	012351
	(.051829)

Estimated Long Run Matrix in Johansen Estimation
Co-integration with no intercepts or trends in the VAR

18 observations from 3 to 20. Order of VAR = 1, chosen r =1. List of variables included in the co-integrating vector. FTB, LWM3, LFTB, LNTB, LAVERGEN. List of I (1) exogenous variables included in the VAR: LWM3, LFTB, LNTB, LAVERGEN.

	FTB	LWM3	LFTB	LNTB
FTB	–.14422	.11341	.096759	046274

ring and bid at less than competitive price sharing the surplus profits thus reaped. This puzzle needs further investigation.

Turning to co-integration, several combinations of variables were tried out and based on diagnostic results the following was found to be the best:

IYACP = ϕ (AMTOUT, CBA, BANK, SECMAX)

The co-integration was done using Johansen's estimation technique without trend, using the Microfit 486. The details of the co-integration output are reported in Table 6B. Using the co-integration LR test using trace of stochastic matrix we obtained three co-integrating vectors. There are no consensual selection criterion available in the literature, so that economic intuition is used to select one of these. In any case we do not perform any error correction computations in this paper so that the adjustment vectors are of no direct relevance to us. Assured of the long run (stable) relation between the variables involved we went on to use the OLS technique to perform regression analysis the details of which are reported in Table 6A. The OLS equation is:

IYACP=4.45 – 0.158E-3 AMTOUT – 0.934E-4CBA+0.726E-4BANK + 0.288 SECMAX

Selecting the third co-integrating vector and the above OLS equation leads to signs which are a priori expected. Thus the bidding strategy for the scheduled commercial banks may be constructed by considering the following variables:

1 Amount outstanding of 14 day T-Bills in secondary market
2 Amount outstanding of 14-day T-Bills with commercial banks
3 Competitive bids accepted
4 Secondary market yield.

Putting It Together

Having obtained the prediction from the RBI as well as the scheduled commercial banks' point of views, we now put the two together. We take the two predicted series and the corresponding actual series and try out a co-integration exercise. Having tried out the co-integration, we go on to using the simple OLS estimation technique, which we now report. As in the earlier case, the statistical details *vis-a-vis* the equation given below as well as the co-integrating vectors are reported in Tables 7A and 7B. The regression equation is given by:

ACTUALL= - 0.117+0.792 RBI+0.237 SCB

where, ACTUALL represents the actual value of the T-Bill yield at cut-off price, RBI represents the forecast values from the RBI's angle and SCB represents the forecasts from the point of view scheduled commercial banks. The fit is very good and there is evidence of co-integration. The t-value associated with the estimated coefficients is significant. One may venture to say that in the tussle for the determination of T-Bill yield the predominant role continues to be of RBI. The predictability may be seen from Graph 3A and Graph 3B depicts the residuals of the above regression. We have used co-integration only from the point of view of diagnostics and have not used them for error correction, et al. But in case of 'putting it together', it might be worthwhile noting that the long run matrix shows a greater coefficient for SCB. This could be interpreted by saying that whilst just as yet the 14-day T-Bill market is in its infancy and so the role and dominance of RBI is pronounced. Already however the trend shows that with passage of time and development of the market, the SCBs (or the other agent players) will have a greater say (with coefficients being interpreted to stand for the relative bargaining strengths) in the bargaining game.

Table 6B
Estimated Co-integrated Vectors in Johansen Estimation (Normalised in Brackets)

24 observations from 2 to 25
Maximum lag in VAR = 1, Chosen r = 1

	Vector 3
IYACP	- 29035
	(-1 0000)
AMTOUT	– 3189E-4
	(1098E-3)
CBA	- 3181E-4
	(- 1096E 3)
BANK	2235E-4
	(7698E-4)
SECMAX	12423
	(.42787)

Estimated Long Run Matrix in Johansen Estimation

*24 observations from 2 to 25
Maximum lag in VAR = 1, chosen r =1

IYACP	.2256E-4
AMTOUT	- 42588
CBA	- 60590
BANK	1 6555
SECMAX	1435E-4

Table 6A
Ordinary Least Squares Estimation (Scheduled Commercial Bank)

Dependent variable is IYACP 25 observations used for estimation from 1 to 25

Regressor	Coefficient	Standard Error	T-Ratio
[Prob]			
C	4 4550	36316	12 2674
[000]			
AMTOUT	– 1576E-3	5029E-4	3 1345
[003]			
CBA	.9338E-4	8039E-4	1 1616
[252]			
BANK	7259E-4	7080E-4	1 0253
[311]			
SECMAX	.28828	.042996	6 7048
[000]			
R Squared	82172	F-statistic F (4,45)	51.8534
[000]			
R Bar-Squared	80587	S.E. of Regression	
15747			
Residual Sum of Squares	9 4175	Mean of Dependent Variable	
6 1039			
S D of Dependent Variable	1 0383	Maximum of Log-likelihood	
29.2105			
DW-statistic	1.0217		

Table 7A
Ordinary Least Squares Estimation (RBI and Scheduled Commercial Bank)

Dependent variable is ACTUALL
24 observations used for estimation from 2 to 25

Regressor	Coefficient	Standard Error	T-Ratio [Prob]
C	-.11705	53267	- 21974 [.828]
RBI	.79161	26006	3 0439 [006]
SCB	.23656	29142	81173 [.426]

R-Squared	.88352	R-Bar Squared	.87242
S E of Regression	.38793	F-stat. F (2, 21)	79.6407 [.000]
Mean of Department Variable	6 1575	S D of Dependent Variable	1.0861
Residual Sum of Squares	3 1603	Equation Log-likelihood	–9 7260
Akaike Info. Criterion	-12.7260	Schwarz Bayesian Criterion	14 4931
DW-statistic	2 4210		

TABLE 7B

Estimated Co-integrated Vectors in Johansen Estimation (Normalised in Brackets)
Co-integration with no intercepts or trends in the VAR

24 observations from 2 to 25. Order of VAR = 1 Chosen r = 1 List of variables included in the co-integrating vector. ACTUALL. RBI. SCB List of I(1) exogenous variables included in the VAR: RBI. SCB

	Vector 1
ACTUALL	52907
	(1 0000)
RBI	25861
	(48879)
SCB	29092
	(54986)

Estimated Long Run Matrix in Johansen Estimation
Co integration with no intercepts or trends in the VAR

24 observations from 2 to 25 Order of VAR = 1 chosen r =1 List of variables included in the co-integrating vector
ACTUALL RBI SCB List of I (1) exogenous variables included in the VAR RBI. SCB.

	ACTUALL	RBI	SCB
ACTUALL	27465	13425	.15102

These are interesting initial results, to say the least

V
Agenda for Further Research

There are several specific issues that have been mentioned in the body of the paper (especially in the section on Auction Design) that need to be researched upon. With data availability this should become possible. Also, and perhaps ultimately, the specific problem of implicit T-Bill yield needs to link up at both the ends and put in a larger perspective. For example, after being able to predict/forecast the yield, it needs to be linked to other rates in the macro-economy and its causation (direction as well as magnitude) needs to be studied so as to infer certain policy lessons At the other end the government expenditure function needs to be modelled and that part of it which is financed with the help of T-Bills needs to be endogenised The finance ministry and RBI are engaged in a game – each with its own special agenda given their individual status – but at the same time involved in attaining collinear goals. The interesting question here would be whether to model this process as a sequential game or a simultaneous move game and which is more reflective of the bargaining strengths of the individual agent players. In a cascade sense, it will be interesting to model the downstream game between RBI and 'others' in the context of the T-Bill market. All this apart from official openness, economic wisdom and insights into Indian reality – will require competence in game theory, computational capability, data availability and operational capability in the area of macro/policy modelling. Here we have merely sketched a speculative agenda, but we believe a useful one and perhaps to be pursued, not by individual researchers but rather by group of researchers supported by institutions.

VI
Conclusion

As noted at the beginning of this paper, here we have tried to present a few tentative steps that we have taken towards understanding/modelling/predicting the implicit yield of T-Bills. The yield is a very important rate, for in the changed environment of macro-management, it must successfully serve as reference rate defining the opportunity cost structure in the economy, as well as serving as a signalling device for the RBI to set out its monetary stance. Its not just the prediction of yield that is important but also the entire design of efficient institutional framework as well as its mechanism is crucial. We are obviously not yet there, but we are getting there. Already there are interesting aspects to be seen, one of which we may mention as an aside. A glance at the Graph 1A reveals that *there is a clear evidence of flattening of the yield curve with a major weight being contributed at the shorter end.* This signifies underlying inflationary trend that is clearly seen in the fact of rising inflation in the economy. These and such other diagnostic signals are there to be perceived and made use of. Also, there are several puzzles that exist in this area, some of which we have hinted at. We have also tried to argue in favour of greater data dissemination and transparency, which is in any case in the interest of the auctioneer. This is an extremely crucial, fertile and useful area of research and it is to be hoped that individuals and institutions will apply themselves to the task.

[This paper is based on the presentation at a recent workshop on 'Future Directions for the Indian Economy: Macroeconomic Issues with Special Reference to Capital and Finance, held at Gokhale Institute of Politics and Economics, Pune]

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Capital Adequacy Ratios

An Agnostic Viewpoint

D M Nachane

The main purpose of bank regulation is the maintenance of a sound banking system, which is usually narrowly interpreted to mean 'prevention of bank failure'. To this end, regulators examine the riskiness of assets and the adequacy of capital. But do rigid capital adequacy ratios ensure adequate bank capitalisation in reality? Alternatives such as Value-at-Risk and Pre-Commitment models have been used in some developed countries. India needs theoretical analysis of these models and empirical data before it can consider a shift from the current capital regulatory arrangements.

I
Introduction

A BANK may be regarded as an archetypal depository financial institution, the greater part of whose liabilities comprise claims issued against itself, i e, deposits. The functional role of capital in a depository financial institution is fundamentally different from that in an industrial firm. The equity capital of any firm is only partly a guarantee of the value of the firm's fixed obligations, its major function being the provision of assets to the firm. However, for a depository financial institution, the importance of equity capital derives principally from its insurance function. Reflecting this underlying difference in the relative role of capital, a depository financial institution has historically attracted at least three types of regulations. Firstly, although such institutions may issue a variety of deposit liabilities and hold a variety of assets, legal and institutional prohibitions restrict the class of securities that may be used for each purpose [Pyle 1971]. Secondly, the institutions are not allowed to sell any of their assets short and thirdly, some kind of reserve or liquidity requirements are usually in place, tying specific forms of asset holdings to specific forms of liabilities. In few other industries is the capital investment decision so subject to government intervention and control.

It is generally agreed that the main purpose of bank regulation is the maintenance of a sound banking system usually interpreted narrowly to mean 'the prevention of bank failure' [Leonard 1941 and Davis 1966]. In carrying out this legislative intent, regulators usually look to the 'riskiness' of a bank's assets on the one hand and to the 'adequacy' of its capital on the other. Given the numerous difficulties in assessing riskiness of different assets, regulators have shown a preference for laying stress on capital adequacy [Peltzman 1970]. The introduction of deposit insurance complicates the regulator's task. Insured deposits will not require the bank capital cover against losses, and thus the size of the bank's capital is irrelevant in their case. Thus, the institution of a deposit insurance system may encourage banks to limit their capital, which in turn increases the possibility of the deposit insurance actually having to be used. As Jacobs (1964) indicates, the fact that deposit insurance fees do not vary with a bank's capital structure enables highly leveraged banks to avoid paying more for deposits. The difference between the bank's private cost of a highly leveraged capital structure and the social cost is paid by the deposit insurance agency in the form of a greater risk exposure.

Historical experience with capital regulation shows a great deal of variability. In the US, capital regulations in banking, date back at least to the National Bank Act of 1863. American banking legislation (pre-1981) specifically instructed federal regulatory agencies to certify the capital adequacy of institutions subject to their jurisdictions in matters relating to the grant of new charters and membership of the Federal Reserve System. The threat of expulsion (from Federal Reserve System) was omnipresent though rarely executed. (The one notable incident of expulsion is, of course, the Continental Bank and Trust in the 1960s.) The situation in UK was even more lax, at least up to the 1980s. Thus we find the high priest of British banking, Sayers, remarking in 1967 that "Nowadays in England at least, capital has ceased to be necessary, especially as the banks are, by special dispensation under the Companies Acts, allowed to conceal their profit experience...In some other countries, where the banks are less firmly established and public confidence could be more easily shaken, the capital of banks naturally retains its original significance."

In the pre-nationalisation phase of Indian banking, capital standards attracted a modicum of attention from the Reserve Bank of India (RBI). The declining ratio of capital (paid-up capital plus reserves) to total deposits from 9 per cent in 1950 to 4 per cent in 1960 for Indian banks, had prompted the RBI to advise banks to aim at a ratio of 6 per cent, through compulsory transfers of 20 per cent of declared profits to reserves [Jagirdar 1997]. Nationalisation however ushered in a sense of complacency on the issue of capitalisation and the capital to deposit ratio for public sector banks seems to have fallen to fairly low levels (less than 2 per cent) in the early 1980s.

In 1981, in the aftermath of the US thrift industry crisis, a new three-tier set of explicit capital requirements was introduced in that country. Contemporaneously regulators in other countries were echoing similar concerns about their respective financial institutions. The G-10 countries endorsed the so-called Basle Accord in 1988, incorporating the recommendations of the Basle Committee on Banking Supervision under the chairmanship of W P Cooke [Bardos 1988]. The three major principles of the Basle Accord were the following:

(1) A bank must hold equity capital to at least a fixed per cent (8 per cent) of its risk-weighted credit exposures as well as capital to cover market risks in the bank's trading account.

(2) When capital falls below this minimum requirement, shareholders may be permitted to retain control, provided that they recapitalise the bank to meet the minimum capital ratio.

(3) If the shareholders fail to do so, the bank's regulatory agency is empowered to sell or liquidate the bank.

The Basle Committee on Banking Supervision (1996) lent a substantial new dimension to the 1988 Basle Accord by incorporating market risk in the determination of capital adequacy. The assessment of market risk could be based on a

bank's own internal model, subject to some general restrictions on parameters and structure [Hendricks and Hirtle 1997].

Turning to the situation in India, the Committee on financial sector reforms (1991) (usually referred to as the first Narasimham Committee) had recommended the adoption of the Basle norms, with a three-year adjustment period. In accepting the Committee's recommendations, the RBI directed banks with international presence to achieve the norms by March 1995, while other banks were obligated to reach the norm in two stages by March 1996. Eight banks failed to meet the targeted deadline, though by March 1997 only two defaulters persisted. The second Narasimham Committee (1998) took the process of bank capitalisation several steps ahead. Firstly, it was sympathetic to the incorporation of market risk as suggested by the Basle Amendment. Secondly, it suggested a 5 per cent risk weight for government and approved securities, with a view to countering the tendency of banks to over-invest (i e, beyond the SLR limits) in such 'riskless' securities. Thirdly, it drew pointed attention to the need for including off-balance sheet (OBS) items (such as contingent liabilities in terms of various types of swaps and hedging operations, derivative trades) in the definition of capital adequacy. Finally, the Committee recommended the raising of the capital to assets ratio to 10 per cent from 8 per cent, with the achievement date fixed at 2002. The rationale for this hike is set out as follows. "International experience has shown that in several developing countries, due to economic factors like the greater volatility and consequently higher risk in the environment in which they operate and because of institutional factors such as legal impediments to loan recoveries and weaknesses in accounting practices, capital adequacy ratios need to be set at higher levels than the ratios prevailing in developed economics even as the definition of capital adequacy has to be more exacting and risk weights are set at higher levels."

II
Bank Portfolio Response to CARs

It is ironic that while the drift in regulatory opinion has shown a marked shift in the direction of mandatory capital adequacy ratios (CARs), the theoretical case for such ratios rests on extremely weak foundations. The theoretical literature has addressed itself to three issues. (i) the impact of CARs on the portfolio behaviour of banks; (ii) the impact of CARs on the failure probability of banks; and (iii) the examination of other methods of capital regulation

We begin by a careful examination of the first of the above issues in this section. To illustrate the main results, we resort to the basic model of portfolio behaviour of a depository financial institution due to Pyle (1971) and Hart and Jaffee (1974). The four critical assumptions underlying this model are: (i) total bank size is assumed to be under the control of bank management; (ii) the return paid to depositors is riskless; (iii) deposit insurance is absent; and (iv) risk and return per unit of capital are unaffected by bank size, i e, the market for assets is competitive.

Let x_0 denote the percentage of bank's capital K held in the form of deposits paying the risk-free rate R. Let x_i be the percentage of capital invested in the i^{th} asset (i=1,2....n), with E_i the expected return on the i^{th} asset. σ_{ij} is the covariance of returns between i^{th} and the j^{th} assets and $\sigma_{ii} = \sigma_i^2$ the variance of return on the i^{th} asset. Further E_p and σ_p^2 denote the expected return and variance of return (per unit of capital) on the bank portfolio, then (taking x_0 with a negative sign), we have

$$\sum_{i=0}^{n} x_i = 1 \qquad (1)$$

$$E_p = x_0 R + \sum_{i=1}^{n} x_i E_i \qquad (2)$$

We assume that the bank has a general risk averse utility function defined on end of period capital

$$U = U(K + R_p K) \qquad (3)$$

where R_p is the actual return (as opposed to expected return E_p) on the bank portfolio.

The bank's optimum portfolio is then obtained by maximising (3) subject to (1) and (2). However, if a capital to asset ratio is fixed by the regulator at c, then we have the additional constraint

$$x_0 \geq 1 - 1/c \qquad (4)$$

It can be shown [Merton 1972] that the optimum portfolio is given by

$$x_i^* = \frac{AC\left(\frac{1}{b} - 2R\right) \quad C(1+B)^* \frac{1}{c}}{C + D}\left[\frac{\sum_{j=1}^{n}(E_j - R)}{A} \frac{\sum_{j=1}^{n}\sigma_{ij}}{C}\right] + \frac{\sum_{j=1}^{n}\sigma_{ij}(E_j - R)^* \frac{1}{c}}{A} \quad i = 1, 2, \ldots n \qquad (5)$$

where A,B,C and D are all positive constants, and the parameter b is the coefficient of relative risk aversion of the utility function (3).

The effect on the composition of the bank's portfolio of changes in c can now be simply evaluated by differentiating the expressions in (5) with respect to c. Further insight is gained [Koehn and Santomero 1980] by introducing two new concepts, viz. ε_{ic} (the elasticity of proportionate demand for the i^{th} asset with respect to the CAR c) and σ_{ip}, the covariance of returns of the i^{th} asset with the entire portfolio. Koehn and Santomero (1980) prove the interesting result that

$$\varepsilon_{ic} > \varepsilon_{jc} \text{ iff } \sigma_{ip} > \sigma_{jp} \qquad (6)$$

This establishes the interesting conclusion that the effect of an increase in C is to shift the equilibrium portfolio in favour of relatively more risky assets.[1]

What is remarkable about the above conclusion is its robustness. Firstly, as James (1976) has shown, it holds even if market imperfections are introduced. Secondly, fixed-rate deposit insurance (the most typical in practice) coupled with CARs reinforces the shift in favour of riskier assets [Rochet 1992] provided markets are complete and contingent (in the Arrow-Debreu sense) It is only when the deposit premia on banks are risk-related, can CARs achieve their intended purpose. Thirdly, even in the more realistic situation of a bank's equity capital being fixed in the short run, CARs can be shown to be ineffective [Kim and Santomero 1988], unless the risk-weights on assets correctly reflect systematic market risks of the assets.[2] Finally, if we introduce the feature of limited liability, the situation becomes much more complicated. Rochet (1992) demonstrates that in such a context, the mere imposition of CARs, even if they reflect correct risk-weights, is no guarantee against risk-loving behaviour by banks – at the least CARs have to be supplemented by restrictions on the minimum level of capital.

The resolution of the paradoxical result of a positive association between capital adequacy ratios and risk assumption by banks, lies in the fact that CARs cause bank leverage and asset risk to become substitutes; thus, banks experiencing reductions in leverage (regulatory increases in CARs) will achieve the desired total risk level by increasing asset risk [Shrieves and Dahl 1992].

It is interesting to note that the options theory of finance arrives at a conclusion diametrically opposite to the one stated above. Several authors in this tradition [Kareken and Wallace 1978; Black et al 1978; Benston et al 1986] maintain that

maximising the value of bank shareholders' equity entails maximisation of the option value of deposit insurance through increasing leverage and asset risk. The associated benefit to bank shareholders is termed the 'deposit insurance subsidy'. Bank capital regulation then acts as a check on the tendency of banks to exploit this deposit insurance subsidy and reduces the risk exposure of banks [see Keeley and Furlong 1990 for a formal demonstration of this result].

The major problem with the options pricing view seems to be its premise that banks maximise net shareholder value. This objective may adequately describe mutual fund behaviour but banks are far more concerned with avoiding insolvency than with maximising shareholder returns. Recently, Saunders et al (1990) have provided a vindication of this view in terms of agency theory. They argue that bank managers as agents of stockholders, have an incentive to reduce the risk of bank insolvency well below the levels desired by stockholders, since managers have considerable sunk human capital in banks, and hence stand to lose a great deal personally in the event of bank insolvency. At best, the options pricing result can be regarded as a mitigating factor in our main conclusion of a positive association between risk and regulatory capital [Shrieves and Dahl 1992].

The limited amount of empirical evidence that is available in the US seems to reinforce the futility view of CARs. Peltzman (1970) using data for a selection of US banks in the mid-1960s found bank regulation to be ineffective. A more recent study [Shrieves and Dahl 1992] pertaining to a cross-section of 1,800 banks in the US over 1984-86, reached substantially similar conclusions, indicating substitution at the margin between leverage and asset risk. Recent results for the UK are however supportive of the effectiveness of regulatory capital. (An empirical study for Indian banks is currently under way by the author.)

III
CARs and Bank Failure Probability

It is one of the avowed purposes of bank regulation to avoid the probability of bank failure. To evaluate the effects of bank capital regulation, it is thus necessary to derive an explicit relationship between bank portfolio risk, bank capital and the chance of bankruptcy. We once again resort to the basic theoretical model discussed above. The efficiency frontier shows all combinations of portfolios which generate maximum expected return for a given level of risk. This frontier will appear as an upward sloping (concave from below) locus in the risk-return space (E_p, σ_p) – further, the bank will have an indifference map between E_p and σ_p, spelling out the bank's risk attitude. These indifference curves will be upward sloping (convex from below) and the point of tangency between the efficiency frontier and an indifference curve will depicit the equilibrium of a bank for a given CAR c (this equilibrium point is denoted by A in Figure). An important result by Merton (1972) demonstrates that an increase in c will have the effect of forcing the efficiency frontier downwards and to the left. (In Figure, EF and E'F' refer respectively to the efficiency frontiers before and after an increase in the CAR c).

We define bank failure to occur, if, in any period the bank's losses exceed its total capital, i e, if $R_p<-1$ (in terms of the notation introduced earlier). Following Blair and Heggestad (1978) we may now invoke the Chebysheu Inequality to write

$$\text{Prob}\ [\,|R_p - E_p| > k\sigma_p] \leq 1/k^2 \qquad (7)$$

$$\text{Or}\quad \text{Prob}[R_p<-1] \leq \sigma_p^2/(E_p+1)^2 = P_f \qquad (8)$$

(in putting $k\sigma_p - E_p = 1$, so $k=(E_p+1)/\sigma_p$)

The right side of (8) represents an upper limit on the probability of failure which we denote by P_f. The line DD in Figure shows all combinations of σ_p and E_p along which P_f remains constant. (Note that the slope of DD is $1/\sqrt{P_f}$ and its intercept is –1) All points to the left (right) of DD exhibit failure probabilities lower (higher) than P_f.

The original bank equilibrium is at A. Suppose that the CAR c is now increased so that the efficiency frontier drops from EF to E' F'. If the risk-return ratio had remained unchanged the new equilibrium point would have been A' and the failure probability would have decreased [an old result due to Roy 1952]. But as we have seen in the previous section, there is likely to be a shift to riskier assets, i e, the new equilibrium will be on the frontier E'F' of course, but to the right of A' at a point like A^+ or A^*. If the new equilibrium is at a point like A^+ to the left of DD, the probability of bank failure has decreased but if A^* is the new equilibrium, then failure probability has actually increased after increasing the CAR c. Whether the shift will occur to a point such as A^+ or A^* will depend upon b the coefficient of relative risk aversion. The higher the value of b, the smaller the distance of the new equilibrium from A'. Thus low values of b make it highly probable that bank failure might result from increases in the CAR.

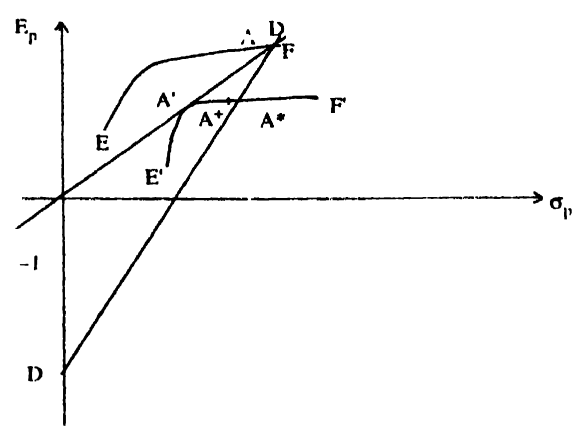
This last conclusion taken in conjunction with (6) has important implications for the health of the banking system as a whole – for highly risk-averse banks the elasticity of high risk assets is lower than the corresponding elasticity for other less risk averse banks. Thus, banks initially holding relatively more risky assets per unit of capital, offset the capital restrictions to a greater extent than their more conservative counterparts. This has the effect of increasing the risk dispersion across the industry as a whole, accentuating the probability of failure of the riskier institutions and thereby jeopardising the health of the entire banking industry.

IV
Alternate Arrangements

Value-at-Risk (VaR) Models

It is important to emphasise that the preceding discussion should not be construed as a position against adequate bank capitalisation. Rather, our scepticism is constricted to the instrumentality of CARs

Figure



as a method for achieving this purpose. Two alternative arrangements have emerged in the literature, viz, Value-at-Risk (VaR) Models and the Pre-Commitment Approach (PCA). These two arrangements are now taken up for discussion.

The VaR model retains the basic CAR philosophy of a 'hard link' between risk exposure and capital requirements set exogenously by a regulator. However there is an important difference. In the traditional CAR approach, the risk weights are also set by the regulator whereas in the VaR approach, the risk weights are based on the banks internal model. This amendment is addressed to overcome two weaknesses of the CAR approach – one, that it ignores the diversification benefits accruing from holding assets of varying risk in the same portfolio and two, that it fails to efficiently exploit internal information specific to the bank. However, the VaR model comes with its own price tag. The regulator has to ensure that the bank's internal model does not misrepresent its risk exposure, and hence a checking mechanism has to be in place.

VaR framework: The analytics of the VaR model is relatively straightforward. Let x_t denote the log of portfolio value at time t, the k-period ahead porfolio return is $r_{t+k}=x_{t+k}-x_t$. The probability density function (pdf) of r_{t+k} based on the information available at time t, will be denoted f_{t+k}. In its broadest terms, the VaR model M of the bank is simply a specification of this pdf which we will denote $f_{t+k,M}$. We next define $VaR_{MT}(k,\alpha)$ as the critical value corresponding to the α per cent tail of $f_{t+k,M}$. Put differently, the VaR estimate $VaR_{MT}(k,\alpha)$ is the forecast of the maximum portfolio loss that could occur over the maximum holding period with the specified confidence level.

The 1996 market risk amendment (MRA) to the 1988 Basle Accord lays down the standard parameters of k and α at respectively k=10 days and α=1 per cent. A bank's market risk is thus defined as its own estimate of the maximum potential loss that would occur over a two week period (10 working days) at 1 per cent confidence level. The MRA further stipulates that for the period (t+1), the bank must hold market risk capital (MRC) set equal to the larger $VaR_{MT}(10,1)$ or a multiple of the average of the previous 60 $VaR_{MT}(10,1)$ estimates, i e.

$$MRC_{t+1} = \max[VaR_{Mt}(10,1);\ S_{mt}^{*}\frac{1}{60}\sum_{i=0}^{60} VaR_{M(t-i)}(10\ 1)]' \qquad (9)$$

where S_{MT} is a multiplicative factor greater than three [Hendricks and Hirtle 1997].

Model accuracy: Model accuracy is judged by studying the 1-day ahead forecasts at 1 per cent level of significance, i e, from the estimates $VaR_{MT}(1,1)$. At any given time t, we observe returns r_{t-i} over the previous 250 trading days. An exception is said to occur whenever r_{s+1} has been less than $VaR_{MS}(1,1)$, s=t-i, i e, whenever past losses have exceeded the maximum estimated losses. If four or fewer exceptions occur the model is said to be 'acceptably accurate' or in the green zone. The yellow zone comprises between five to nine exceptions. With more than 10 exceptions the model enters the red zone and is deemed inaccurate. The value of the multiplier, S_{MT} is fixed at its minimum of three in the green zone and at its maximum of four in the red zone. In the yellow zone it increases from three by 0.2 for every exception beyond the fourth.

Model evaluation: Under the MRA, banks are supposed to report their VaR estimates to the regulators, who observe whether actual portfolio losses are in excess of these estimates. Regulators will need at their disposal more formal and objective methods of judging model accuracy than the rather informal criteria discussed in B above. Several methods may be invoked, but the two most commonly in use are the binomial distribution method and the interval forecast method.

The binomial method [due to Kupiec 1995] states that under the null hypothesis that the model H is accurate, the exceptions can be modelled as independent drawings from a binomial pdf with =0.01. The probability of observing x exceptions in a sample of 250 is then

$$P(x)=(250C_x)(0.01)^x(0.99)^{250-x} \qquad (10)$$

The appropriate likelihood ratio statistic for testing whether the proportion of exceptions e = x/250, is in fact equal to the level of significance α=0.01 – used in (9) – is then given by

$$LR_B = 2[\ln\{\ln(e^x(1-e)^{250-x}\} - \ln\{(0.01)^x(0.99)^{250-x}\}] \qquad (11)$$

which is a uniformly most powerful test and follows a χ^2 distribution with 1 df. The bank's internal model is deemed inaccurate if LRB is significant at 1 per cent level.

One drawback of the LR_B test is that it is an unconditional test as it simply counts exceptions over the entire period but ignores the variance dynamics. This may lead the method often to wrongly classify a model as 'acceptably accurate'. Christoffersen (forthcoming) has suggested a simple modification to overcome this shortcoming. He defines an indicator variable $I_{M,T+1}$ by

$$I_{M,t+1} = 1 \quad \text{if } r_{t+1} < VaR_{Mt}(1,1) \text{ and}$$
$$= 0 \quad \text{otherwise} \qquad (12)$$

If the VaR estimates are conditionally correct, the series $I_{M,T+1}$ must exhibit both correct unconditional coverage as well as serial independence [Lopez 1998]. We can thus define the following statistic

$$LR_c = LR_B+LR_I \qquad (13)$$

Where LR_I is the likelihood ratio statistic for the null of serial independence, against the alternative of a first-order Markov scheme. The statistic LR_c is distributed as a χ^2 (2).

Limitations: There are several limitations with the VaR approach. For one it entails supervision on a day-to-day basis to ensure that portfolio valuations are not fudged. There is also the problem of separating forecast errors arising from model deficiencies from those arising in response to changed economic structures. Further, the estimated risk under VaR resorts to fixed parameters and does not incorporate extra information about features such as future credit and liquidity conditions that might be available to the manager. By imposing an arbitrary holding period of 10 working days, the VaR approach fails to allow for managerial expertise in the optimal choice of the holding period itself. Thus, the VaR estimates may often overstate capital requirements.

In view of the several difficulties noted above, the Narasimham II Report (1998), while endorsing the MRA, cautions against a premature adoption of the VaR model. Instead they suggest "a standard measurement method which uses a building block approach in which specific risk and general market risk arising from debt and equity positions are calculated separately" (p 20).

The Pre-Commitment Approach

Framework of PCA: In contrast to the CAR approach and the VaR amendment to it, the PCA propounded by Kupiec and O'Brien (1997) relies on the use of a 'soft link', i e, a link arising endogenously rather than being externally imposed. The link between exposures and back-up capital is sought to be enforced by the threat of penalties whenever trading losses exceed a level prespecified by the bank.

Thus, under the PCA, banks are asked to specify a level of capital *ab initio* for a given period of time (say one quarter). If the cumulative losses of the bank exceed the chosen level of capital during this period, then the banks are subjected to

penalties. The task of the regulator is then to impose a schedule of penalties which will provoke a desirable choice of capital for varying levels of risk. The appeal of the PCA lies in the fact that it does not require the regulator to estimate the level of trading book risk of any specific bank or to assess its internal model. This 'hands off' regulatory approach gives the banks much greater freedom in choosing their portfolios, while simultaneously contributing to more efficient use of information (since banks are much more likely to be adept at estimating risks of trade than the regulator) [Daripa and Varotto 1998].

As before, let r denote the return on assets in the bank's portfolio and f(r) its pdf. Further, let k denote the precommitted capital of the bank. Thus a penalty falls due if the bank's net return falls below (–k). There are only two cost factors in this model – the cost of raising capital and the expected cost of the penalty. Assuming that the penalty imposed is proportional to the loss in excess of the capital cover k, the total cost function may be written as

$$C(k,p) = ak - p\int_{-\infty}^{-k} (r + k)\, f(r)dr \qquad (14)$$

where p is the penalty and a the cost of raising a unit of capital.

The optimal level of capital is now given by taking the first derivative wrt k of (14), i e,

$$\frac{\partial C(k,\ p)}{\partial k} = a - p\ F(-k) = 0 \qquad (15)$$

where F(r) is the cumulative density function of r. Equation (15) determines the optimal capital k as the solution k* given by

$$k^* = -F^{-1}\ (a/p) \qquad (16)$$

Equation (14) bears out our a priori expectation that k* (the optimal pre-committed capital) declines as the cost of raising capital a increases, but increases as the penalty p increases. Kobayakawa (1998) extends the above result in an important direction. He shows that there is a range of penalty values $[p_1, p_2]$ such that

(i) if the actual penalty p is lower than p_1, it has no impact on the level selected of the precommitted capital;

(ii) if $p \in [p_1, p_2]$ then banks with riskier asset portfolios are induced to hold higher capital than banks with more conservative portfolios; and

(iii) if p exceeds p_2, then banks with more conservative portfolios hold higher capital than those with risky portfolios.

The last result serves to underline the fact that too heavy penalties defeat the very purpose of capital regulatory requirements.

Limitations: One basic limitation of the PCA is that it considers the bank as a single entity and ignores the so-called 'agency problem'. An agency problem arises whenever ownership is divorced from operational decision-making. The ignoring of the agency problem under a hard-link arrangement may not be a serious matter but under a soft-link arrangement, agency problems can pose a compelling challenge.

An integral feature of large modern banks is the separation of owners from managerial decision-making. Managers cannot usually be fined in the event of a loss. Thus decisions about portfolio risk are taken by managers with strictly limited liability, while the owners have to suffer not only the trading book losses but also pay the penalty in the event of a breach under PCA. Daripa and Varotto (1998) suggest an interesting arrangement aimed at alleviating agency distortion. Their arrangement rests on two key insights, (i) a soft-link maintains flexibility but entails loss of control by the principal over the manager (agency problem) and (ii) a hard link permits full control but suffers from the drawback of inflexibility. The actual arrangement suggested is as follows: (1) regulate according to PCA to begin with; (2) in any period t, regulate according to PCA, if no breach has occurred in period (t-1); and (3) if a breach has occurred in period (t-1), adopt a hard-link approach (of the CAR or VAR variety) for periods t, (t+1)...(t+T), and then switch back to PCA. This scheme establishes a trade-off between current and future risk and thereby controls agency distortion. Higher risk taking in period t raises the possibility of a PCA breach and increases the choices of facing a hard-link regime for T future periods that would put limits on managerial risk-taking. Put differently, a defaulting bank must go through a 'probationary' phase when its risks would be rigidly monitored.

Empirical feasibility: Lest it appear that the PCA is pure academic esoterica we conclude this section by describing an important attempt to examine its implementability. An international group of 10 banking organisations participated in this pilot project under the aegis of the New York Clearing House Association. Among the participating institutions were the Bank of America, the Chase Manhattan, Fuji Bank, Citicorp, J P Morgan and Company, etc. [Considine 1998]. The pilot project's main conclusions were as follows:

(i) The PCA is a viable alternative to the CAR and VaR approaches. With proper structuring and refinements, it could be implemented as an alternative not a supplement to existing capital standards.

(ii) The scale of penalties for defaulters was a question of critical import.

(iii) Finally, although the PCA was originally designed for the market risk of banks, its potential applicability is much wider. In fact apart from market risk, it could also be applied to operational, legal, settlement and other types of risks. The PCA avoids several complications and inefficiencies involved in setting capital charges separately for each category of risk while providing incentives to ensure the maintenance of minimum prudential standards within the industry.

V
Conclusions

While adequate bank capitalisation is desirable and even necessary do capital adequacy ratios ensure it? A perusal of the theoretical literature and the available (admittedly limited) evidence pertaining to advanced countries (mainly the US) reinforce these misgivings. Alternate arrangements such as Value-at-Risk models and Pre-Commitment models are then taken up for examination. The VaR perseveres with the 'hard-link' arrangements between risk exposures and back-up capital envisaged under the standard CAR regime but introduces a degree of flexibility by allowing banks to reveal the riskiness of their portfolios to the regulator via internally generated models. By contrast, the PCA substitutes an endogenously generated 'soft-link' between risk exposure and capital for the exogenously imported 'hard-link' of the other two approaches. There is some evidence to substantiate the empirical plausibility of the PCA.

However, considerable caution needs to be exercised before we extrapolate the scepticism about CARs (based on advanced country experience) to the Indian context. The Indian banking system is predominately a public sector one, the incentive structures in which might differ significantly from those prevailing under private sector banking. Secondly, the system of directed credit endemic to Indian banks severely constricts their risk-taking abilities. Thirdly, a feature inherited from a long history of regulated interest rates is that market risks are not accurately mirrored in interest spreads. Fourthly, accounting norms are as yet in an evolving stage so that the kind of sophisticated and frequent monitoring required by the VaR and PCA approaches may pose problems. The imposition of penalties for default under PCA would require a separate regulatory authority 'with teeth' – the present Board for Financial Supervision may prove inadequate for the task.

The above questions are in urgent need of both theoretical and empirical answers. Till such answers are forthcoming, it would of course be premature to recommend any pronounced shifts in the current capital regulatory arrangements. But a headlong rush along the Basle path of inflexible CARs, which the Narasimham II Committee seems to advocate is equally inadvisable. After all the chairman of the Basle Committee, W P Cooke, had himself said, "There is no objective basis for ex-cathedra statements about levels of capital. There can be no certainty no dogma about capital adequacy" [Cooke 1981].

Notes

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1 A few readers of this paper have commented that the increased investment by banks in government securities in the last few years negates our major premise that CARs induce shifts to riskier assets. This is not necessarily so. The phenomenon could equally well reflect the fact of 'credit rationing' in a high interest rate environment *a la* Stiglitz and Weiss (1981).

2 There is a fundamental asymmetry problem here. The bank may be a much better judge of the systematic market risks of its asset holdings than a regulator. Further, since the nature of banking business varies widely, this feature argues for bank specific CARs, rather than a uniformly specified risk-weight structure for the entire banking sector.

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NPA Variations Across Indian Commercial Banks

Some Findings

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The Indian commercial banking sector is characterised by both a high average non-performing share in total bank advances and a high dispersion between banks. This paper presents the findings of a formal attempt to explain inter-bank variations in NPAs for the year 1996-97. The specification tests for the impact of region of operation on domestically-owned banks, as measured by percentage branches in each of a set of state clusters. One cluster of three eastern and seven north-eastern states carries a robust and statistically significant positive coefficient; another cluster of the southern and some of the northern states carries a significantly negative coefficient. These findings bear out those of Demirguc-Kunt and Huizinga on the significance of the operating environment for bank efficiency. No sustainable improvement in the performing efficiency of domestic banks is possible without prior improvement in the enforcement environment in difficult regions of the country. Another finding of some importance is that it is not foreign ownership in and of itself so much as the banking efficiency and technology correlates of the country of origin of the foreign bank which determine NPA performance in the Indian environment.

I
Introduction

THE non-performing share in total bank loans is an important indicator of banking health. The NPA ratio in aggregate at country-level is of interest in the first instance, as a macro financial indicator. The high share of NPAs in the Indian banking sector in aggregate has been of concern for some time. This was among the variables targeted for phased reduction by the *Report of the (Tarapore) Committee* as a prior requirement for full rupee convertibility,[1] although subsequent to the *Report* the goal of full convertibility itself is less universally endorsed. But clearly the urgent need for reducing NPAs survives the declining interest in having a fully convertible currency.

International cross-country variations in NPAs are of interest, but these are beset by definitional differences across countries. This may be one reason why international cross-section studies of banking performance are conducted more in terms of standardised measures such as interest spreads and bank profitability [Demirguc-Kunt and Huizinga 1998].

NPAs carry a possible definitional problem even over time within a country, and that is so for recent years in India when, in response to the recommendations of the Narasimham Committee, there has been a phased alteration of the definition of NPAs,[2] with at the same time a move to a net from a gross concept.[3] This process was completed only in 1994-95 so that the earliest post-reform year for India from which stability obtains after the definitional shake-out is 1995-96.

Bank-specific percentages of net NPAs to net advances for 1996-97,[4] range all the way from a low of zero per cent to a high of as much as 31 per cent. It is clearly to be expected that this variation would be explained to some degree by bank-specific efficiency and prudential indicators. The published averages by sub-sector also show sharp differences by ownership category. Thus for example the reported[5] sub-sector averages are 9 per cent for the 27 public sector banks; 6 per cent for the 25 old private sector banks; 2 per cent for the nine new private sector banks which came into existence after entry deregulation in 1992; and 2.5 per cent for the 39 foreign banks. The foreign banks include a mix of those that have operated in India for a very long time like American Express Bank, and eight recent banks which operated for the first time in 1996-97. Within the foreign bank category, there is again a high degree of variation in the NPA percentage, all the way from Bank of America with zero per cent to the Bank of Tokyo-Mitsubishi with 17.4 per cent, Mashreq Bank with 23 per cent, and the State Bank of Mauritius with 31 per cent. These NPA variations within foreign ownership suggest that the degree of development of banking techniques in the home country might matter as much as foreign ownership in and of itself. The sub-category averages also show a vintage effect which clearly contributes towards the much lower NPAs among domestic banks of very recent origin.

In addition, in developing countries as geographically dispersed as India, there should in principle be some impact of variations in the operating environment on observed NPAs. The 1998 *Report of the (Pannir Selvam) Committee* on NPAs of public sector banks mentions industrial and political unrest in some parts of the country among the contributory factors. Clearly, the variation across the country in the enforcement environment would affect all domestic banks, not just those in the public sector, although publicly-owned banks may suffer additional compulsions to expand into difficult regions of the country. Foreign banks have a largely metropolitan presence, and are to that extent immune to variations in the operating environment across the rest of the country. Were sub-nationally disaggregated indicators of performance for each bank available, this impact would be more transparently evident, but RBI bank-specific data are reported only in aggregate at national level. Further, where banks have nationally dispersed branches, it is not possible to construct sub-national aggregates by a simple grouping of the banks in each region, as is possible for example in countries like the US where banks are largely circumscribed regionally.

In what follows single-equation regressions on cross-sectional variation in NPAs for the year 1996-97 are reported, where the specification of the model tests for performance and ownership variations, along with the impact of regional location. The prior work on cross-sectional variation in Indian bank performance by Sarkar et al (1997), as also the international cross-sectional results of Demirguc-Kunt and Huizinga (1998), will be summarised in section II. Section III presents the empiri-

cal findings on factors explanatory of cross-sectional variation in NPAs in India. Section IV concludes.

II
Recent Cross-Sectional Examinations of Bank Performance

The 1998 study by Demirguc-Kunt and Huizinga (DKH) is the most recent, and certainly the most comprehensive ever, cross-country study of variations in bank performance, using two performance indicators separately regressed on a set of explanatory factors: the interest spread (used as an efficiency indicator) and bank profitability. The data set is at bank-level for 80 countries over the period 1988-95. The set of regressors includes both bank-specific characteristics (size, leverage, type of business, foreign ownership) as well as country-level variables which describe the macro-economic, legal and institutional environment.[6] The country-level variables are also interacted with the GDP per capita to capture the difference between their effects on the performance of banks in developed and developing countries.

Perhaps the most important finding pertains to the differences in the impact of foreign ownership between developed and developing countries. In developing countries foreign banks have greater interest margins and profits than domestic banks. In industrial countries, the opposite is true. The first finding bears out the better NPA performance by foreign banks on average in India, but does not bear upon the pattern of NPA variation within foreign owned banks in India by country of origin.

Among the macro variables reported by DKH to affect bank profitability positively although not net interest margins (the efficiency indicator), is per capita GDP.[7] These results suggest that per capita GDP may be less a correlate of banking efficiency or superior banking technology, and more a correlate of banking opportunities and the operating environment generally. However, this result conflicts somewhat with the (positive) significance of foreign ownership on both interest margins and profits in developing countries, where the better performance relative to domestic banks in a different host environment suggests that it is the superior banking technology in the country of origin of the bank (with, by definition, a higher per capita GDP) rather than the operating environment there that is the correlate of higher per capita GDP.

The conflict may arise from ambiguity of interpretation in the directionality of the net interest margin as a variable. A lower margin indicates greater banking efficiency under competitive circumstances and indeed this is borne out by the significant negative coefficient for competitiveness of the banking sector in the net interest regression. Other findings of the DKH study which support an inverse relationship between net interest and bank efficiency are that variations in overhead and other operating costs are reflected in variations in bank interest margins, as banks pass on their operating costs (including the corporate tax burden) to their depositors and lenders. On the other hand, a higher margin could indicate greater banking efficiency under segmented, or otherwise imperfectly competitive, market conditions, such as what perhaps characterises the operating environment in developing countries, and this is borne out by the positive significance of foreign ownership on interest margins in developing countries.

DKH also include a law and order index, where better law and order leads to lower interest margins on account of reduced risk premia on bank lending. There is also a corruption index (the index is so constructed that a high value reflects lower corruption in government). The results show that cleaner government is associated with lower realised interest margins and more so in poorer countries. Both these findings show an inverse relationship between the net interest margin and the efficiency of the operating environment.

The DKH findings thus suggest that any attempt to explain cross-bank NPA variations would do better to capture bank efficiency through operating profits or returns to assets which are less ambiguous in terms of direction than the net interest margin.

The Sarkar, Sarkar and Bhaumik (1998) (SSB) cross-bank study for India regresses two profitability and four efficiency measures (one of which is the net interest margin) on pooled data for two years, 1993-94 and 1994-95, for a total of 73 banks, using single-equation OLS estimation for each. The study focuses exclusively on an examination of the prediction from the property rights literature about the superiority of private ownership in terms of performance. Private banks are divided into traded and non-traded categories; the control variables include the (log of) total bank assets, the proportion of investment in government securities, the proportion of loans made to the priority sector, the proportion of semi-urban and rural branches and the proportion of non interest income to total income. The coefficient of foreign ownership is positive and significant at 1 per cent significance level for both sets of regressions. However the coefficient of private ownership is significant only for returns on assets (ROA). With respect to all the efficiency indicators, private domestic banks are no better than the public banks, thus

ROA, OPR:[8] foreign > private traded > private non-traded = public

NIM, OPSE, OCR, SER:[9] foreign > private traded = private non-traded = public

The coefficient of the foreign ownership dummy on the net interest margin is positive, in conformity with the DKH result for all developing countries.

Ajit and Bangar (1998) present a tabulation of the performance of private sector banks *viz-a-viz* public sector banks over the period 1991-1997, using a number of indicators: profitability ratio, interest spread, capital adequacy ratio, and the net NPA ratio. The conclusion is that Indian private banks outperform public sector banks. What is of interest, however, is that they find Indian private banks have higher returns to assets in spite of lower spreads. This finding emphasises once again the ambiguity of spreads as a measure of bank efficiency. Other findings of interest are that the wage bill is a major component of intermediation cost in public sector banks unlike for private banks, where it is the expenditure on capital equipment like computers, that is the major component.

Finally, Patel (1997) discusses banking reforms but does no empirical exercises. The central point made is that there should be an enabling framework for banks that ensures a sustained maintenance of their operational flexibility in an environment that is increasingly buffeted by domestic as well as international shocks.

III
Empirical Findings on NPAs

Bank-specific net NPAs (as a per cent of net advances) for the year 1996-97 were regressed on ownership and regional presence, controlling for bank-specific efficiency and prudential indicators relating to the same year, thus:

$$NPA9697_i = \alpha + \Sigma\beta_j O_j + \Sigma\gamma_k E_{ki} + \Sigma\delta_m (DS)_{mi} + \varepsilon_i; \quad i=1, \ldots 91$$

where

O_j : ownership intercept dummy; $j = 1, \ldots 4$

E_{ki} : set of bank-specific efficiency indicators; $k = 1, 2$

$(DS)_{mi}$: per cent branches in the mth state cluster of the ith domestic (D=1) bank; m=1, ...M

ε_i : residual

The NPA percentage pertains to operating assets alone (see note 2). All data were drawn from published RBI sources.[10] RBI data on Indian banks are classified by four ownership categories: old private domestic banks, new private domestic banks, domestic public banks and foreign banks. We have further subdivided foreign banks into one group of Asian and west Asia origin, and a residual group of other than Asian and west-Asian origin. There are two intercept dummies for these, and one each for new private domestic banks, and public sector domestic banks. The base intercept stands for old private domestic banks.

Data on NPAs are reported by the RBI for 1996-97 on 100 banks. Of these, eight new foreign banks[11] beginning operations in 1996-97 clearly had had no time to accumulate NPAs. These were therefore excluded. The State Bank of Mauritius had the highest reported NPA of 30.72 per cent, and also the highest capital adequacy ratio of 107 per cent.[12] This observation led to a spuriously high positive correlation between NPAs and capital adequacy, and therefore had to be dropped, leaving a total of 91 observations. The mean NPA ratio across all banks after exclusion of the outlier is 6.10 per cent (the corresponding absolute figure is Rs 22,349 crore). Descriptive statistics on NPA9697 and all independent variables other than regional branch presence are in Appendix I.

The capital adequacy (capital to risk-weighted assets) ratio is the prudential indicator. Although all banks were required to adhere to the 8 per cent norm by March 31, 1996, there were several that fell below,[13] and a surprising degree of variation above the required level as well (Appendix I).[14] Of the four bank-specific operating indicators reported by the RBI (Appendix I), the net interest margin was rejected because of its ambiguity (see section II), and business per employee because it is an indicator of staffing efficiency alone. Operating profit, which is reported in India as a percentage of working funds, rather than return to assets (ROA) was used as a performance indicator for two reasons. ROA includes return on non-operating assets, which is not indicative of operating efficiency and therefore less suitable as a factor explanatory of non-performing operating assets. At the same time, provisioning for non-performing loans is deducted from ROA, making for a built-in negative relationship between NPAs and ROA. However, one of the specifications tried does substitute ROA for operating profit; the results are reported alongside. By directly taking a performance indicator as an explanatory variable, the specification subsumes factors such as bank size, proportion investment in government securities and proportion of non-urban branches found by SSB (1998), to be significantly explanatory of performance.

Regional presence is quantified by taking the total number of branches in each state as a percentage of the national total. The statewise break-up of total advances at bank-level would have been a better measure of regional presence, but was not available. To avoid the distortion arising from the foreign bank presence in large metropolitan cities of some states (Calcutta in West Bengal, Mumbai in Maharashtra), the percentage of branches in each state was interacted with a dummy variable for domestic banks (private plus public). Thus, the coefficients of all regional presence variables apply to domestic banks alone.

The correlation matrix between NPA9697 and percentage branches by state (DASSAM is for Assam after being interacted with the dummy for domestic ownership) is presented in Appendix II. The states have been ranked roughly (though not exactly) in descending order by the correlation coefficient with NPA9697. The sequence of states, starting with Assam which has the highest correlation coefficient of 0.5178, shows a marked regional clustering in terms of both correlation with NPA9697, and cross-correlations between branch presence. These are simple correlation coefficients, but even so show clearly that a regression specified by branch presence in each state taken separately would suffer from multicollinearity in branch presence

TABLE 1: REGRESSION RESULTS
(No of obs: 91)

Dependent Variable: Net NPAs as a Per Cent of Net Advances 1996-97	Regression Coefficients (t-values)				
	Run 1	Run 2	Run 3	Run 4	Run 5
Intercept	9.84	10.53	10 79	10 78	11.18
	(3.52)	(7.78)	(7 85)	(7 84)	(8.24)
Intercept dummies					
New domestic private banks	–3.97	–3.85	–3.71	–3 72	–3.54
	(–2.43)	(–2.65)	(–2.56)	(–2.56)	(–2.50)
Public domestic banks	1 65	1.68	1.89	1 89	1.61
	(1.38)	(1.50)	(1.70)	(1 70)	(1.47)
Foreign banks - Asia and west-Asia	1.27	0.56	0 20	0.21	–0.23
	(0.43)	(0.33)	(0 12)	(0.12)	(–0.15)
Foreign banks-other	–4.51	–5.21	–5 54	–5 54	–6.15
	(–1.60)	(–3 60)	(–3.71)	(–3 71)	(–4.45)
Per cent capital adequacy ratio	–0.21	–0.21	–0 21	–0.21	–0.21
	(–3.25)	(–3 36)	(–3.39)	(–3.39)	(–3.46)
Per cent operating profits to working funds	–0.29	–0.29	–0.27	–0 27	–
	(–0 96)	(–0 99)	(–0.91)	(–0.91)	
Per cent returns on assets	–	-	-	–	–0.59
					(–2.08)
Per cent branches					
D - NE5/Aruna/Mizo/Bihar/Orissa/West Bengal	0 09	0.08	0.07	–	–
	(1.89)	(2.10)	(1 92)		
D - NE5/Bihar/Orissa/West Bengal	–	–	–	0 07	0.07
				(1.93)	(1.87)
D - HMU (HP/MP/UP)	0 006	–	-	–	–
	(0.19)				
D - GM (Gujarat/Maharashtra)	0.10	–	–	–	–
	(0.32)				
D - South/Goa	–0.02	-	–	.	–
	(–0.58)				
D - DCHP (Delhi/Chandigarh/Haryana/Punjab)	–0.01	–	-	–	–
	(–0.31)				
D - DCHP/south/Goa	–	–0.02	–	–	–
		(–1 67)			
D - DCHP/south/Goa/Gujarat	–	-	–0.03	–0.03	–0.03
			(–1.89)	(–1 88)	(–2.13)
R^2	52.47	52.41	52.84	52.85	54.75
R^2	45 85	47.77	48.23	48.25	50.35
F-Statistic	7.93	11.29	11.48	11.49	12.40
	(11,79)	(8,82)	(8,82)	(8,82)	(8,82)

Notes: (1) For data sources and definitions of variables, see Appendices I and II.
(2) The threshold values for the F-statistic at P=0.01 lie between 2.82 and 2.66 for (8,82); between 2.50 and 2.34 for (11,79).
(3) The critical values for the t-statistic (df=60; one-tailed) are 1.671 for P=0.05; 2.000 for P=.025; 2.390 for P=0.01.

between states within a region. There is a clear cluster consisting of north-eastern and three eastern states (Bihar, West Bengal and Orissa) with correlation coefficients between 0.30 and 0.50 with NPA9697. All the three eastern states of Bihar, Orissa and West Bengal have coefficients of 0.39 or more. There are two exceptions in the northeastern group, Arunachal and Mizoram, with correlation coefficients lower than the mean for the region, but the contiguity factor makes for strong cross-correlations with branch presence in adjoining high-coefficient states. The next highest coefficient after the east/north-east cluster is 0.20 for UP, which with Madhya Pradesh and Himachal Pradesh constitutes a natural cluster.

At the other extreme are Goa, Chandigarh and Delhi, with negative correlation co-efficients below -0.21. This group is not characterised by contiguity but clearly carries other similarities in terms of size, urban percentage, and most importantly, per capita income (Appendix II). There is also a fairly high correlation of branch presence between Delhi and Chandigarh. The four southern states and Maharashtra, Gujarat, and Punjab carry smaller negative coefficients, and Haryana is close to zero.

Based on these correlation coefficients, an initial set of five regional clusters was devised, thus: one grouping the three eastern and seven north-eastern states; one of UP, MP and HP; one of Gujarat and Maharashtra; one of Delhi, Chandigarh, Haryana and Punjab; one of the four southern states and Goa. Table 1 reports five regressions. The first four have four ownership dummies; the capital adequacy ratio and operating profit as control variables; and domestic branch presence in varying regional clusters. A fifth run substitutes ROA for operating profit as a control variable.

The first run includes all five of the initial regional clusters. Of the ownership dummies, new domestic private banks carry a negative coefficient significant at P=0.01. This is the vintage effect within the class of domestic banks. Public sector banks as expected carry a positive co-efficient, but it falls well short of significance at P = 0.05. The coefficient of foreign banks of Asian/west-Asian origin on the other hand is not significantly different from zero, while other foreign banks carry a negative coefficient significant (almost) at P=0.05. Of the two control variables, the capital adequacy ratio carries a negative coefficient significant at P=0.01. Operating profit (as a per cent of working funds) is not significant.

Of the five regional clusters, the east/north-east cluster alone carries a statistically significant (at P=0.05) coefficient, with a positive sign as expected. The HP/MP/UP cluster carries a positive coefficient, but it is not significant. The DCHP (Delhi/Chandigarh/Haryana/Punjab) cluster and the south/Goa clusters carry negative coefficients as expected, but neither is statistically significant. The Gujarat/Maharashtra cluster carries a positive coefficient, which even though insignificant, runs contrary to prior sign expectations.

This last (western) cluster along with the HP/MP/UP cluster was dropped therefore in the second run, and the two clusters with negative coefficients were grouped together in a single cluster. This new state grouping carries as expected a negative coefficient, significant at P=0.05. Further augmentation of this cluster with Maharashtra (not reported in the table), greatly increased the standard error and reduced the t-value of the cluster coefficient to near zero, undoubtedly because of the considerable variation within Maharashtra between location in Mumbai and environs, and location elsewhere. A final cluster adding Gujarat alone to the south/Goa/DCHP cluster further improves the statistical significance of the cluster coefficient (run 3). The adjusted R^2 of this specification is 48.23 per cent and the F value of 11.48 is much above the critical value for significance at P=.01.

Comparing runs 1, 2 and 3, the co-efficient of the east/north-east cluster remains stable, alongwith its level of significance, across the redrawn boundaries of the other cluster/s. When the east/north-east cluster is defined to exclude Arunachal and Mizoram, which had lower than average correlations with NPA for the region, with all other variables remaining the same (run 4) the coefficient of the cluster and t-value remain unchanged relative to run 3, and there is only a very slight improvement in the statistical significance of the regression.

The substitution of ROA for operating profits improves the regression further (run 5). The coefficient of capital adequacy remains stable and ROA now carries a negative and significant coefficient where operating profits did not. This is to be expected and does not add very much to the explanatory value of the regressions.

The approach to the identification of state clusters in this paper has deliberately been entirely empirically driven. Just as aggregate country-level NPAs over time would display sensitivity to macro-economic conditions, it is only to be expected that in a large and economically uneven country like India, interregional disparities in per capita domestic product would be an important factor explanatory of inter-bank variations in NPAs. But it is very clear from the clusters driven by the empirics of this variability that income is by no means the only factor uniting the states in each cluster. The ranking of states by per capita domestic product for the most recent year for which data are available for all states is given in Appendix III. The cluster of states positively related to NPAs includes Bihar, Tripura and Orissa at the bottom of the ranking, but includes Assam which is much higher ranked in terms of income than states such as MP, Rajasthan and UP which do not belong in the cluster. Likewise, the cluster identified in the regressions as negatively related to NPAs includes states/union territories at the top of the ranking such as Delhi, Goa and Punjab, but excludes for example Arunachal Pradesh which is higher ranked than the southern states in the cluster.

The pattern of coefficients of the intercept dummies and the control variables across runs is remarkably stable, except that with the transition from the first to the second specification the negative co-efficient for foreign banks of other than Asian/west-Asian ownership becomes significant at P=0.01. The coefficient for Asian/west-Asian foreign banks remains consistently insignificant. Thus, there does exist a statistically significant difference between foreign banks classified by region of origin, with those originating in Asia/west Asia clearly performing no better than domestic (old) private banks. The positive co-efficient of public sector banks improves in significance to P = 0.05 in runs 3 and 4.

IV
Conclusions

That NPAs as a per cent of bank advances of Indian commercial banks vary cross-sectionally by ownership category is already known from the sub-category averages reported by the RBI. This paper presents the findings of a formal attempt to explain inter-bank variations in net NPAs for the year 1996-97 through a specification which includes intercept dummies by ownership category; bank-specific prudential and efficiency indicators; and region of operation, as measured by percentage branches in each of a set of state clusters (this variable applies to domestic banks alone). The branch presence measure used here was the only available

indicator of regional exposure since banks do not report the distribution of total advances by state. The best specification explains about half of the total inter-bank NPA variation.

This paper adds to the conventional ownership categories a further distinction between foreign banks by country of origin of dominant ownership, in order to test whether it is foreign ownership in and of itself or the banking efficiency and technology correlates of the country of origin of the foreign bank which determine NPA performance in the Indian environment. Foreign banks of Asian and west-Asian origin performed no better than (old) domestic private sector banks in terms of NPAs. Foreign banks originating elsewhere did perform better. The significant negative coefficient of new private sector banks captures a vintage effect within the domestic private sector category. Finally, public sector banks carry a positive and significant coefficient.

Capital adequacy, a prudential indicator, carries a negative and significant coefficient. Operating profit as a percent of working funds was used as a performance indicator but was consistently insignificant as a variable explanatory of NPAs. The substitution of this by return on assets improved the statistical results, but did not add to the explanatory value of the exercise, since the required deduction of provisioning for non-performing loans from return on assets makes for an in-built negative relationship between the two. The net interest margin was not used as an explanatory variable since there is an inherent ambiguity of interpretation regarding its directionality.

One region of operation as measured by branch presence as a per cent of the national total carried a statistically significant positive coefficient. This cluster of Bihar, Orissa, West Bengal together with the north-eastern states shows a 0.07 increase in per cent NPAs for every per cent increase in branch exposure; the coefficient is significant at P=0.05, and is robust across variations in specification. The cluster accounts on average for 7.22 per cent of domestic bank branches. Another cluster of the four southern states together with Goa, Delhi, Chandigarh, Punjab, Haryana and Gujarat shows a 0.03 decrease in per cent NPAs for every per cent increase in branch exposure, significant at P=0.05. This cluster accounts on average for 56.07 per cent of domestic bank branches. The formation of these clusters was entirely empirically driven. Per capita income (state domestic product) is one factor uniting the states in each cluster, but an approach to cluster formation based purely on rankings by domestic product carries poor explanatory value. An independent approach to cluster formation that might have carried better explanatory value than income might have been through a calibration of states on a law and order scale, but this was not attempted. Law and order measures suffer from a variable censorship threshold.

The findings show that bank-specific characteristics such as ownership or adherence to prudential norms do not suffice to explain inter-bank variability in NPAs. The region of operation matters.

The importance of the operating environment has been highlighted by recent empirical findings, most notably those of Demirguc-Kunt and Huizinga (1998), whose 80-country cross-sectional bank-specific regressions show that better law and order and lower corruption lead to lower net interest margins (on account of reduced risk/corruption premia in lending rates). However, the ambiguity of interpretation in the context of other findings of that study regarding the directionality of net interest margin as an indicator of bank efficiency makes that a less compelling finding than if NPAs were the variable explained. Definitional differences make a cross-country study of NPAs all but impossible, but within-country cross-sectional or time-series analysis testing of

Appendix I

	NPA9697	Per Cent Capadeq	Per Cent Opprof	Per Cent Retass	Per Cent Netint	Bus/Emp (Rs)
All Banks: 91 obs						
Max	25.24	48.98	8.57	10.97	7 79	69485 00
Min	0.00	-18.81	-0.81	-1.46	0.00	41.00
Mean	6.10	11.86	2.41	1.23	3 40	1361.20
SD	5.00	7.09	1 70	1 45	1 35	7824 00
Coeff of var	0 82	0.60	0.71	1 18	0 40	5.75
Private Banks (old): 25 obs						
Max	11.30	34.23	4.19	10.97	4 65	304 00
Min	1.19	2.51	0.15	0.02	1 29	41.00
Mean	6.41	11.28	1 78	1.28	3 09	89 00
SD	2.39	6.53	0.87	2 10	0 75	49.30
Coeff of var	0.37	0.58	0.49	1 63	0 24	0 55
Private Banks (new): 9 obs						
Max	4.47	27 00	4.00	3 00	4 00	2033.00
Min	0.00	10.11	1.09	0.80	2 15	174 38
Mean	1.69	15 77	2 76	2 05	2 88	585 04
SD	1.53	4.97	1.07	0.90	0 61	578.54
Coeff of var	0.90	0.32	0 39	0 44	0 21	0 99
Public Banks: 27 obs						
Max	25.24	17.50	3 02	1.66	4 28	106.00
Min	3.63	-18 81	-0.81	-1.46	0 71	49 00
Mean	9.94	9.19	1.49	0.59	3 21	71.00
SD	4 58	6.05	0.95	0 59	0 76	14 81
Coeff of var	0.46	0.66	0.64	1.00	0.24	0 21
Foreign Banks (Asia/west Asia): 12 obs						
Max	22.84	48.98	8 57	4 65	7 79	69485.00
Min	0.00	8 88	0.67	0.01	1 00	85 00
Mean	5.94	18.36	4.42	2.10	4 72	6278 30
SD	7.23	11.08	2.32	1.47	2 38	19906.80
Coeff of var	1 23	0.60	0.53	0.70	0 50	3.17
Foreign Banks (other): 18 obs						
Max	7.46	18.27	6.42	3.00	5 83	28837.00
Min	0.00	8.23	0.00	-0.95	0 00	52 00
Mean	2.22	10.36	3.15	1.15	3 50	2173 40
SD	2.70	2.60	1.83	1.05	1 61	6662.90
Coeff of var	1.21	0.25	0.58	0 91	0 46	3.07
Estimated Correlation Matrix (all banks)						
NPA9697	1.00	-0.36	-0.37	-0 34	-0 10	0 26
Per cent Capadeq	-0.36	1.00	0.40	0.30	0 31	0.07
Per cent Opprof	-0.37	0.40	1.00	0.48	0 56	0.07
Per cent Retass	-0.34	0.30	0.48	1.00	0 27	0.00
Per cent Netint	-0.10	0.31	0.56	0.27	1 00	0 24
Bus/emp (Rs)	0 26	0.07	0 07	0.00	0.24	1.00

Notes: All data relate to the year 1996-97 and are at bank-level; the number of banks in each category is indicated. The data exclude one outlier bank of foreign Asian origin (see text).

NPA9697 : percentage of net NPAs to net advances for the year 1996-97.
Per cent Capadeq : capital to risk-weighted assets.
Per cent Opprof : operating profits to working funds.
Per cent Retass : rate of return to assets.
Per cent Netint : net interest income to working funds.
Bus/emp : business per employee (Rs).

Correlation Matrix

	NPA9697	D-Assam	D-Bihar	D-WB	D-Manipur	D-Orissa	D-Tripura	D-Megha	D-Naga	D-Aruna	D-Mizo	D-UP	D-MP	D-HP	D-Raja	D-Har	D-Pun	D-Guj	D-Maha	D-Ker	D-Karn	D-AP	D-TN	D-Goa	D-Chandi	D-Del
NPA9697	1	0.5178	0.4233	0.4117	0.4027	0.3914	0.3805	0.3534	0.3068	0.1698	0.0561	0.2027	0.1403	0.1259	0.0541	0.00164	-0.0192	-0.0516	-0.1138	-0.0326	-0.0614	-0.0848	-0.1612	-0.2072	-0.2918	-0.3281
D-Assam	0.5178	1	0.5617	0.9092	0.9008	0.6664	0.9039	0.7412	0.4045	0.4165	0.1659	0.0234	0.022	0.1784	-0.0264	0.00386	-0.0171	-0.052	-0.1508	-0.0853	-0.1155	-0.0864	-0.1231	-0.0423	-0.0666	-0.1017
D-Bihar	0.4233	0.5617	1	0.5538	0.3252	0.633	0.3117	0.5316	0.4247	0.3918	0.32	0.1476	0.1268	0.3241	0.0115	0.1309	0.029	-0.0055	-0.1494	-0.1532	-0.1521	-0.1084	-0.1685	-0.0399	-0.0863	-0.1139
D-WB	0.4117	0.9092	0.5538	1	0.8556	0.5897	0.8569	0.6494	0.3547	0.3324	[illegible]	0.0183	0.00015	0.0881	-0.0209	-0.0183	-0.0418	-0.0084	-0.1564	-0.1356	-0.1228	-0.0802	-0.1042	0.0748	-0.0454	0.0336
D-Manipur	0.4027	0.9008	0.3252	0.8556	1	0.4802	0.9871	0.7026	0.3478	0.3871	0.1166	-0.0102	-0.0253	0.0305	0.0318	0.0133	0.0335	-0.0451	-0.1167	-0.0851	-0.0594	-0.0731	-0.1058	-0.0318	-0.0387	-0.0507
D-Orissa	0.3914	0.6664	0.633	0.5897	0.4802	1	0.4921	0.5947	0.3807	0.4493	0.3373	0.00514	0.0207	0.2458	-0.0375	-0.0107	-0.0448	-0.0571	-0.1955	-0.1461	-0.1158	0.3073	-0.0798	-0.0463	-0.0977	-0.1615
D-Tripura	0.3805	0.9039	0.3117	0.8569	0.9871	0.4921	1	0.7158	0.2872	0.3739	0.1058	-0.0242	-0.0258	0.0171	-0.0335	-0.0356	-0.0209	-0.0454	-0.1005	-0.0741	-0.0745	-0.0624	-0.0866	-0.0277	-0.0413	-0.066
D-Megha	0.3534	0.7412	0.5316	0.6494	0.7026	0.5947	0.7158	1	0.7462	0.8423	0.7029	0.0216	0.0182	0.134	-0.0445	0.012	-0.0449	-0.0436	-0.1475	-0.0325	-0.0605	-0.0423	-0.1051	-0.0351	-0.0721	-0.1121
D-Naga	0.3068	0.4045	0.4247	0.3547	0.3478	0.3807	0.2872	0.7462	1	0.8153	0.7796	0.0597	0.0212	0.0907	-0.0341	0.00684	0.0388	-0.02	-0.1624	0.035	0.0181	-0.0483	-0.1307	-0.0373	-0.0630	-0.0796
D-Aruna	0.1698	0.4165	0.3918	0.3324	0.3871	0.4493	0.3739	0.8423	0.8153	1	0.9566	0.0158	0.0282	0.1424	-0.0295	0.0025	-0.035	-0.0292	-0.0952	-0.0718	0.0555	-0.0005	-0.0931	-0.0240	-0.0478	-0.0720
D-Mizo	0.0561	0.1659	0.3200	0.1001	0.1166	0.3373	0.1058	0.7029	0.7796	0.9566	1	0.0288	0.036	0.1411	-0.0213	0.014	-0.0226	-0.0162	-0.0707	-0.0541	0.0587	0.0188	-0.0675	-0.0170	-0.0362	-0.0548
D-UP	0.2027	0.0234	0.1476	0.0183	-0.0102	0.0051	-0.0242	0.0216	0.0597	0.0158	0.0288	1	-0.0289	0.0518	-0.0423	0.1378	0.0361	-0.087	-0.2277	-0.1640	-0.1740	-0.1530	-0.1927	-0.0671	-0.0827	0.1962
D-MP	0.1403	0.0220	0.1268	0.0001	-0.0253	0.0207	-0.0258	0.0182	0.0212	0.0282	0.036	-0.0289	1	0.00839	-0.0098	-0.007	-0.0357	-0.0104	-0.0157	-0.1283	-0.1415	-0.0005	-0.1721	-0.0447	-0.0766	-0.1013
D-HP	0.1259	0.1784	0.3241	0.0881	0.0305	0.2458	0.0171	0.1340	0.0907	0.1424	0.1411	0.0518	0.00839	1	0.0043	0.7163	0.549	-0.066	-0.1522	-0.1171	-0.1287	-0.1047	-0.1412	-0.0447	0.0689	0.0716
D-Raja	0.0541	-0.0264	0.0115	-0.0209	-0.0318	-0.0375	-0.0335	0.0445	-0.0341	-0.0295	-0.0213	-0.0423	-0.0098	0.0043	1	0.0648	0.0524	-0.0376	-0.1354	-0.1131	-0.1260	-0.1109	-0.1480	-0.0500	0.0401	0.0806
D-Har	0.0016	0.0039	0.1309	-0.0183	-0.0133	-0.0107	-0.0356	0.012	0.00684	0.0025	0.014	0.1378	-0.007	0.7163	0.0648	1	0.5932	-0.1047	-0.1665	-0.1625	-0.0799	-0.1382	-0.1468	-0.0610	0.2222	0.2555
D-Pun	-0.0192	-0.0171	0.0290	-0.0418	0.0335	-0.0448	-0.0209	-0.0449	0.0388	-0.035	-0.0226	0.0361	-0.0357	0.549	0.0524	0.5932	1	-0.0969	-0.1742	-0.1379	-0.1549	-0.1382	-0.1525	-0.0565	0.5633	0.3693
D-Guj	-0.0516	-0.052	-0.0055	0.0084	-0.0451	-0.0571	-0.0454	-0.0436	-0.02	-0.0292	-0.0162	-0.087	-0.0104	-0.066	-0.0376	-0.1047	-0.0969	1	0.0354	-0.1474	-0.1160	-0.0875	-0.1055	-0.0438	-0.1064	0.0577
D-Maha	-0.1138	-0.1508	-0.1494	-0.1564	-0.1167	-0.1955	-0.1005	-0.1475	-0.1624	-0.0952	-0.0707	-0.2277	-0.0157	-0.1522	-0.1354	-0.1665	-0.1742	0.0354	1	-0.2588	-0.0195	-0.088	-0.2558	-0.011	-0.0639	-0.0552
D-Ker	-0.0326	-0.0853	-0.1532	-0.1356	-0.0851	-0.1461	-0.0741	-0.0325	0.035	-0.0718	-0.0541	-0.164	-0.1283	-0.1171	-0.1131	-0.1625	-0.1379	-0.1474	-0.2588	1	-0.0885	-0.1233	0.0218	-0.0159	-0.1047	-0.2833
D-Karn	-0.0614	-0.1155	-0.1521	-0.1228	-0.0594	-0.1158	-0.0745	-0.0605	0.0181	0.0555	0.0587	-0.174	-0.1415	-0.1287	-0.126	-0.0799	-0.1549	-0.116	-0.0195	-0.0885	1	0.0993	-0.0711	0.0585	-0.0387	-0.1037
D-AP	-0.0848	-0.0864	-0.1084	-0.0802	-0.0731	0.3073	-0.0624	-0.0423	-0.0483	-0.0005	0.0188	-0.153	-0.0005	-0.1047	-0.1109	-0.1382	-0.1382	-0.0875	-0.088	-0.1233	0.0993	1	0.0101	-0.0610	-0.1220	-0.1481
D-TN	-0.1612	-0.1231	-0.1685	-0.1042	-0.1058	-0.0798	-0.0866	-0.1051	-0.1307	-0.0931	-0.0675	-0.1927	-0.1721	-0.1412	-0.148	-0.1468	-0.1525	-0.1055	-0.2558	0.0218	-0.0711	0.0101	1	-0.047	-0.0739	-0.1063
D-Goa	-0.2072	-0.0423	-0.0399	0.0748	-0.0318	-0.0463	-0.0277	-0.0351	-0.0373	-0.024	-0.017	-0.0671	-0.0447	-0.0447	-0.05	-0.061	-0.0565	-0.0438	-0.0110	-0.0159	0.0585	-0.0610	-0.0470	1	0.3196	0.1548
D-Chandi	-0.2918	-0.0666	-0.0863	-0.0454	-0.0387	-0.0977	-0.0413	-0.0721	-0.063	0.0478	-0.0362	-0.0827	-0.0766	0.0689	0.0401	0.2222	0.5633	-0.1064	-0.0639	-0.1047	-0.0387	-0.122	-0.0739	0.3196	1	0.4878
D-Del	-0.3281	-0.1017	-0.1139	0.0336	-0.0507	-0.1615	-0.066	-0.1121	-0.0796	-0.072	-0.0548	0.1962	-0.1013	0.0716	0.0806	0.2555	0.3693	0.0577	-0.0552	-0.2833	-0.1037	-0.1481	-0.1063	0.1548	0.4878	1

Appendix II

Variable(s)	Maximum	Minimum	Mean	Std Deviation	Co-eff Var
D-Assam	13.72	0.00	0.64	1.99	3.09
D-Bihar	15.67	0.00	1.76	3.78	2.15
D-West Bengal	52.48	0.00	3.63	7.69	2.12
D-Manipur	1.75	0.00	0.05	0.23	4.62
D-Orissa	8.82	0.00	0.95	2.01	2.11
D-Tripura	3.07	0.00	0.07	0.40	5.42
D-Meghalaya	0.97	0.00	0.06	0.17	2.97
D-Nagaland	0.48	0.00	0.03	0.09	2.76
D-Arunachal	0.47	0.00	0.02	0.07	4.31
D-Mizoram	0.28	0.00	0.01	0.04	5.36
D-UP	90.91	0.00	8.47	20.01	2.36
D-MP	83.33	0.00	3.77	11.59	3.08
D-HP	10.91	0.00	0.50	1.75	3.47
D-Rajasthan	82.40	0.00	3.99	14.41	3.61
D-Haryana	17.58	0.00	1.36	3.11	2.29
D-Punjab	50.00	0.00	3.68	10.86	2.95
D-Gujarat	86.27	0.00	5.58	13.07	2.34
D-Maharashra	100.00	0.00	18.25	26.48	1.45
D-Kerala	93.15	0.00	10.62	24.24	2.28
D-Karnataka	83.91	0.00	8.93	16.50	1.85
D-AP	77.23	0.00	6.95	13.81	1.99
D-Tamil Nadu	86.00	0.00	13.85	22.44	1.62
D-Goa	33.33	0.00	0.89	4.28	4.78
D-Chandigarh	18.75	0.00	0.83	2.89	3.48
D-Delhi	14.29	0.00	3.38	3.57	1.06

Appendix III

RANKING OF STATES BY GROSS DOMESTIC PRODUCT PER CAPITA (1993-94)

Delhi	16354	Kerala	6524
Goa	15332	WB	6257
Punjab	12936	Meghalaya	5934
Maharashtra	11662	Aassam	5520
Haryana	10526	MP	5508
Gujarat	9063	Manipur	5362
Arunachal	8852	Rajasthan	5287
Tamil Nadu	8041	UP	4787
Mizoram	7517	Orossa	4662
Karnataka	7214	Tripura	4252
AP	6954	J & K	4244
HP	6896	Bihar	3356
Nagaland	6638		

Source: *Economic Survey 1997-98*: S-12.

the impact of the enforcement environment remains possible.

The policy implications of the findings of this paper are that sustainable reform in the financial sector and improvement in the performing efficiency of domestic banks require improvement in the enforcement environment in some regions of the country. The regional exposure effect would be more transparently evident were banks to report NPAs by state or region instead of merely as a national average as at present. The operating environment matters particularly in the Indian context where there are externally-imposed compulsions on banks to enter into and operate in difficult regions, and needs to be stressed against the background of recommendations on banking reform, such as those by Patel (1997), which tend to focus on the need for greater operational flexibility for banks. The environmental limits on bank operations cannot be tackled by reforms at bank-level alone.

Notes

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1 The average for Indian public sector banks as given in the *Report* in gross terms is as high as 19.5 per cent for 1994-95 and 13.7 per cent at end-March 1997 (see *Report of the Committee on Capital Account Convertibility*, Annexure III 7, p 160 and para 3.23). These are gross figures. The target is 5 per cent by 1999-2000. The corresponding net target is not prescribed.

2 "A 'non-performing asset' (NPA) has been defined as a credit facility in respect of which interest remained unpaid for a period of four quarters ending March 31, 1993, three quarters ending March 31, 1994 and two quarters ending March 31, 1995 and onwards" (*Report on Trend and Progress of Banking in India 1996-97* 121). NPA percentages are correspondingly obtained with respect to total bank credit.

3 Net NPAs are obtained from gross NPAs after deduction of the following:
(i) balance in interest suspense account, i e, interest due but not received,
(ii) claims received from credit guarantors and kept in suspense account pending adjustment (for final settlement),
(iii) part payment received and kept in suspense account, and
(iv) total provisions held. (*Report on Trend and Progress of Banking in India 1996-97*: 13)

4 Data on NPAs for the year 1997-98 are just out, but in the absence of other data required for the exercise performed in this paper, the 1996-97 figures were used.

5 Averages as given in *Report on Trend and Progress of Banking in India 1996-97*. The practice of providing an average figure of NPAs across all banks has been discontinued with the 1997-98 *Report* which reports averages only for public sector banks; not for other ownership categories.

6 The estimation procedure used is weighted least squares, the weights being the inverse of the number of banks in the country for a given year.

7 The growth rate of per capita real GDP is insignificant in both spread and profit regressions.

8 ROA : Return on Assets
OPR : Operating Profit Ratio

9 NIM : Net Interest Margin
OPSE : Operating Profit to Staff Expense
OCR : Operating Cost Ratio
SER : Staff Expense Ratio

10 Data on NPAs and all prudential and efficiency indicators from the *Report on Trend and Progress of Banking in India 1996-97*; on branches of banks as on March 31, 1996 from *Statistical Tables Relating to Banks in India 1995-96*.

11 Arab Bangladesh Bank; Bank Internasional Indonesia; Chinatrust Commercial Bank; Cho Hung Bank, Fuji Bank, Krung Thai Bank Public Company; Overseas Chinese Banking Corporation; Commercial Bank of Korea.

12 A capital adequacy ratio exceeding 100 per cent is possible, since the denominator includes only assets assigned a risk weightage greater than zero.

13 UCO Bank; Bareilly Corporation Bank; Benares State Bank, Catholic Syrian Bank, Lord Krishna Bank

14 There is a possible problem of simultaneity here. Banks with low NPAs could in principle find greater favour with investors and thus have a higher capital adequacy ratio. This possibility is least in India where not even all private banks are publicly traded, see SSB (1998)

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Rural Bank Branches and Financial Reform

Renu Kohli

This note traces the bank branch licensing policy in India in the post-independence period, evaluates its performance and relates it to the present restructuring of the banking industry under financial reform. Within this context, the focus of the article is the future course of rural public sector banks. It offers the Indonesian transformation of Bank Rakyat Indonesia as a model relevant for the rural branches of public sector banks in India. It argues for their transformation as an alternative to closure or gradual substitution by private sector banks.

I
Introduction

THE purpose of this note is to propose a transformation of rural branches of public sector commercial banks as an alternative to closure or replacement by private sector banks in the second phase of financial reforms in India. The motivation for this exercise is the change in branch licensing policy stance under financial reform in the 1990s initiated under the World Bank-IMF structural adjustment and stabilisation programme. This policy change, a clear articulation of which is to be found in the Narasimham Committee Report (1998)[1] and the earlier Report of the Committee on the Financial System (1991),[2] stems from an explicit acknowledgement that quantitative expansion in the Indian banking industry has been at the expense of quality. Policy objectives for the public sector banks under financial reform have now been oriented towards efficiency and profitability and branch licensing of banks has consequently been deregulated by the central bank.

The underpinnings of the liberalised licensing policy lie in the proposed future structure of the Indian banking industry that is outlined in the two reports cited above. The NC (1998) emphasises institutional restructuring of public sector banks to enable their survival in a changing global environment. A three-tier structure is proposed in this report which roughly corresponds to international and universal banks, national banks and local, regional banks. There is some ambiguity about the role of existing rural financial institutions in the proposed banking structure. While the report has called for a review of proposals made by CFS (1991) on this issue and an establishment of a viable rural financial structure; it has also marked the third tier of local banks for financing local trade, small industry and agriculture in the same breath. Further, existing private banks with regional strongholds have been identified as critical institutions in this tier. It thus seems that new rural financial institutions are to be created as part of financial reform though it is unclear at this stage whether these will replace or co-exist along with old ones.

This note will suggest restructuring of rural branches of public sector commercial banks, arguing in favour of *transformation* of these institutions as an alternative to replacement or closure during financial reform. Successful experiments of transformation of stateowned banks in some developing countries provide evidence that financial reform need not necessarily involve privatisation or closure of existing institutions or replacement by new ones. In this paper, we draw extensively upon the Indonesian model of Bank Rakyat Indonesia which was transformed in the 1980s following liberalisation of the Indonesian economy. The note is organised into five sections. Section II provides an overview of branch licensing policy of the Indian banking industry in the pre-reform period, i e, up to 1990; Section III analyses the post-liberalisation branch licensing policy and the rationale behind the restructuring exercise; Section IV looks at the Indonesian experience, drawing parallels with the Indian financial sector and its relevance for rural Indian public sector banks, while Section V concludes with some observations and suggestions for adaptation of this idea in India.

II
Branch Licensing Policy in the Pre-Reform Period: An Overview

The banking structure inherited by the British in 1947 was characterised by numerous small-sized banks, and a few large institutions.[3] It was small in relation to India's population (87,000 per office in 1951) and GNP (commercial banks' assets to GNP ratio stood at 9.7 in 1951) and mainly confined to cities[4] and short-term commercial credit operations with minimal financing of agriculture.[5] The Banking Regulation Act (BRA), 1949, brought the financial system under the purview of the RBI and there was a process of merger and consolidation of commercial banks thereafter, resulting in a sharp reduction in the number of banks and a narrow institutional base.[6] This was considered necessary by the RBI to strengthen the banking structure.[7] This consolidation was further augmented by a restrictive branch licensing policy, motivated by the post-war and post-partition trends in the economy, and the Banking Companies (Restriction of Branches) Act, 1946.[8] From 1956 onwards, though the restrictive framework remained, the licensed banks were encouraged to expand liberally through opening of new branches. Thus elimination of the smaller banks and expansion of larger ones led to the establishment of an oligopolistic structure and a concentration in the banking system.

Following nationalisation of the banking industry in 1969, the central bank adopted an aggressive supply-led approach to financial development, an integral part of which was to locate branches in 'unbanked' (mainly rural and semi-urban' areas. There was a close correlation of this policy with the government's objective of resource mobilisation to finance the Five-Year plans. The branching pattern was broadly based on the government's scheme of development administration, so as to cover each of the community development blocks;[9] this was also considered necessary for implementation of government-sponsored rural development programmes. The spread of banking services in the post-1969 phase, especially the rural areas, has been phenomenal: the post-nationalisation pace of rural branch expansion is 20 per cent as compared to 1[illegible] per cent of the pre-nationalisation phase. Between 1969 and 1996, the number of bank offices in India has increased from 8,262 to 63,092. The distribution of bank branches has also undergone a structural change within this time span: the proportion of total bank branches in rural areas has gone up from 22.2 to 52.4 per cent 61 per cent of the new branches opened having been in rural areas.

It is evident from the branch licensing policy pursued in the post-nationalisation period that opening of bank branches in rural and semi-urban areas has been motivated by social benefit considerations. High fixed costs of establishing financia

intermediaries coupled with relatively low demand for banking services[10] in rural areas make it unprofitable for private agents to open branches in these areas. Social benefits from provision of banking services in such areas might outweigh private benefits though: financial intermediation provides consumers with a choice to borrow or lend some of their incomes; provides avenues for liquid financial assets as an alternative to holdings of real estate, gold, etc. offers a supply of loanable funds to consumers with investment opportunities and reduces transactions costs. It is to bridge this gap between social and private incentives that branch licensing of banks has been regulated in the period after nationalisation.

With financial reform however, policy objectives of public sector banks have been redefined. The earlier role of 'social banking' where banks were one of the instruments of the state in the development process, is now oriented towards profit-maximisation which has guided the evaluation of pre-reform branch licensing policy. The new structure proposed to complement the changed policy environment is discussed in the next section along with a brief evaluation of the performance of rural branches of public sector commercial banks.

III
Branch Licensing and Rural Branch Restructuring under Financial Reform

CFS (1991) has criticised the pre-reform branch licensing policy on several grounds. Thus, "While on the one hand the present policy has placed restrictions on commercial banks opening offices purely on profitability considerations, it has, on the other, directed banks to open offices in centres with the object of providing banking services especially in the rural and semi-urban areas regardless of the fact that such branches are likely to be unremunerative."[11] Again, "...this [branch] expansion was somewhat unplanned and haphazard with the result that considerable strains have been placed on their [banks'] organisational structure."[12] NC (1998) cites "...the large number of unremunerative branches..." and "...directed credit.." as "...proximate causes..." for the high level of non-performing assets (NPAs) and low profitability of the banking industry.[13]

Reappraisal of pre-reform branch licensing policy thus explicitly acknowledges that (a) quantitative expansion in banking has been at the expense of quality, and (b) rural branching has been inefficient and eroded the profitability of the banking system.[14] With a change in perspective, performance evaluation parameters have also changed. Earlier performance indicators like deposit, priority sector advances and branching targets have yielded to new ones indicating efficiency and profitability. The evaluation however, is subject to two caveats.

One, changing performance indicators from pre-reform to post-reform period ignores the social benefits of government intervention in financial markets. Public intervention to provide banking services in rural areas has not only prevented welfare losses arising from market failures of no financial intermediation[15] but also transferred surplus to consumers (borrowers and lenders) that would otherwise be captured by private producers[16] (e g, the informal financial intermediary). These gains can be quantified to some extent by available empirical evidence. Assuming that a rise in the savings rate is beneficial for the economy, a mobilisation of surplus incomes is a direct fall out of this intervention. The savings rate in India in fact, shows a strong, positive association with variables representing proximity or availability of bank branches.[17] This evidence is buttressed by the fact that rural branches have increased their share of deposits and credit between 1969 and 1996 from 3.0 and 0.2 per cent to 15.4 and 12.4 per cent respectively. The expanded network of bank branches has also facilitated mobility of surplus funds from rural to urban areas.[18] Government intervention in this sector has in fact, improved the allocation of capital through easing financial constraints and drawing newer borrowers into the formal credit market.

Second, there seems to be little published empirical evidence that rural bank branches are inherently non-viable or unprofitable. This is possibly because research on this topic is constrained by lack of suitably disaggregated data on banks' incomes and expenditures that could reveal association, if any, between bank loan categories, profitability and the population centre served by the branch.[19] Notwithstanding these limitations, there is some evidence to suggest that rural branches of commercial banks can be profitable. A study by an anonymous author [Analyst 1993] analyses data classified by population centres (i e, rural, semi-urban, urban and metropolitan) for a nationalised bank and finds that "...rural branches are the most profitable, whether profitability is worked out with reference to year-end working funds or average of two-year figures". The disaggregated components of profits analysed in this study showed rural branches had the highest interest rate on advances,[20] the highest interest margin,[21] and the second highest profit ratio.[22]

The study concludes that "...in terms of profitability, rural branches are not a liability to the bank..." and that "...inadequate management competence in individual banks is a major cause of non-viability of rural branches of many public sector banks." This is endorsed by CFS (1991) which states that "...the management of the rural branches has proved to be a daunting task in regard to manpower deployment. Internal controls over rural branches have become weak and ineffective. Information retrieval has been hampered by delays and inaccuracies and quality of assets severely affected by, amongst other things, absence of post-credit supervision."[23] NC (1998) also echoes this view, admitting that the average level of non-performing assets of the banks as a whole "...conceals wide individual variations and amongst the public sector banks, while some have gross NPAs of 7.4 per cent, there are others even now with NPAs of as much as 39.1 per cent..."[24] Prima facie therefore, it does not seem that all is lost with these rural branches as (a) there is some evidence to suggest that rural banking can be profitable, (b) non-viability bears some relation to incompetent management and supervision practices, as well as exogenous policy constraints such as subsidised and directed lending.

Both CFS (1991) and NC (1998) have suggested abandonment of the system of branch licensing as it "...was perhaps desirable and necessary for extending geographical spread in the formative years of expanding the financial infrastructure...[it now] needs to be reviewed...with the banking system now having extended its branch network over a vast area of the rural hinterland and successfully achieved an increase in banking density...branch licensing be abolished."[25] Having said that, it strikes a somewhat contradictory note when it goes on to say in the same breath that "..Indian commercial banks should be given full freedom to open or close branches (other than rural branches for the present) or swap their rural branches with those of other banks on the basis of their commercial judgment".[26]

The CFS model reiterated in NC (1998) with some modification, proposes a domestic banking sector on three-tier lines – the first tier would consist of two or three banks with an international orientation, a second tier of 8-10 large national banks to cater to the medium and large corporate sector, a third tier of a large number of local banks and a fourth tier of rural banks (including RRBs). The third tier of banks in the new model that is relevant for the purpose of this discussion is expected to "...be confined to smaller geographical

regions, namely states, or cluster of districts..."[27] and cater to the clentele of local trade, small industry and agriculture. Further, NC (1998) also calls for a review of CFS (1991) recommendations about reorganisation of commercial banks' rural branches[28] as the "...main issue is to evolve a system whereby rural financial institutions at the district and sub-district level can be constituted into a third tier of banking as indicated in the chapter on restructuring of banking institutions. Third-tier banks should be promoted and strengthened to be autonomous, vibrant, effective and competitive in their operations.[29]

Thus there is some ambiguity and confusion as to what reorganisation of rural branches of public sector commercial banks would mean. At the same time, affirmative roles for local, private banks and NGO financial institutions are well-defined. Thus "...the smaller older private banks operating in India have a useful role to play...[they] have developed a strong regional presence and have been able to meet the credit needs in their areas of operation. Their future set up needs to be considered taking into account their history and their local strength. They have a special role in local areas and could form part of the third tier of local/rural banks."[30] Again, "Banking policy should facilitate the evolution and growth of micro-credit institutions, including LABs (local area banks) which focus on agriculture, tiny and small-scale industries including such specialised institutions as may be promoted by NGOs for meeting the banking needs of the poor".[31]

Following this reassessment and suggestions, bank branch licensing policy was deregulated for the period 1990-95, though not completely abandoned. It now provides operational autonomy to banks to rationalise their branch network. Banks are free to shift their existing branches within the same locality, open certain type of specialised branches (specialising in agriculture and small-industry finance), convert existing non-viable rural branches into satellite offices, and close (with the approval of the Reserve Bank) one loss making rural branch at rural centres served by two commercial banks by mutual consent. Finally, banks fulfilling certain criteria are free to open their own branches.[32]

The banking structure emerging as a consequence indicates a shrinking public sector bank base through (a) horizontal integration and closure of branches of public sector commercial banks, (b) reduction/removal of barriers to entry for private sector (Indian and foreign) banks; and (c) affirmative policy environment in favour of private and NGO banks. To some extent, there is a reversal in the geographical expansion achieved after nationalisation, with substitution by the private sector, though not necessarily in the same areas. There also seems to be some apprehension about rural areas again becoming unbanked as the new private sector banks making an entry after 1994 are required to open 25 per cent of their total branches in rural/semi-urban areas.[33] Regulating the private sector to open rural branches indicates a supply-side approach, possibly motivated by the fear that private enterprise may not be forthcoming in these areas. To this extent, there is an element of continuity in the supply-led branching policy of the RBI, the only departure being a switch over to regulation of the private sector from the role of public provider of banking services.

Finally, the policy constraint of directed lending is to continue. Reviewing the recommendation in CFS (1991) of phasing it out, NC (1998) "...recognises that the small and marginal farmers and the tiny sector of industry and small businesses have problems with regard to obtaining credit and some earmarking may be necessary for this sector..." and recommends that "...the current practice may continue."[34]

Given the policy constraints of combining outreach to marginal borrowers and targeted lending along with institutional sustainability, it is a matter of some consideration whether these objectives can be realised by (a) phasing out old institutions, i e, closure of rural bank branches, (b) creating newer, private ones in addition to the existing ones, or (c) *within* the framework of existing institutions. Clearly, there is a need and demand for banking services in rural areas, and the choice to be exercised is between public or private provision. Given the historical legacy of the pre-reform branch licensing policy, i e, a widespread network of public sector commercial bank branches, it seems unreasonable to close down loss-making branches and implant new, private ones in their place, without even considering the alternative of restructuring *within* these institutions. Losses in these institutions are associated more with management and system specific factors than with location specific ones and it is not impossible to tackle them to restore the health of these institutions.

The real objective of financial reform therefore must be to devise a method that combines the objectives and wealth of the government with an incentive structure, legal enforcement powers and the information advantages of local networks of borrowers and lenders to build sustainable rural financial institutions. Theory suggests that by creating incentives, government institutions can relax financial constraints without experiencing the problems of non-performing assets and defaults. This idea has been employed with success in Indonesia, where a transformation of the loss-making stateowned banks into sustainable, profitable institutions has been achieved while retaining subsidised credit programmes. The Indonesian transformation under financial reform is discussed in the next section.

IV
Transformation of the Rural Branches of Public Sector Banks in Indonesia

Like India, the Indonesian financial system is also heavily dominated by the state, with the main commercial banks being owned by the central bank. This note, however, will concentrate upon only one institution, Bank Rakyat Indonesia (BRI), a nationalised bank operating at the national, district and sub-district (*unit desas*) levels. It is the most comparable to an Indian public sector commercial bank, in terms of structure, operational scale, location and size.[35] Prior to financial reform, the *unit desas* were primarily administering a subsidised agriculture credit scheme. They were required to provide subsidised credit (12 per cent) to most borrowers and pay an interest rate of 15 per cent: negative spreads thus kept them capital constrained and unprofitable. Like the rural branches of Indian public sector banks, BRI was generally unsuccessful in reaching its target population of small farmers and incurred substantial losses for both government and the bank.

Since 1983, BRI has come to be known internationally for its extensive, profitable and sustainable system of local banking that has a general scheme of credit running concurrently with subsidised lending. During financial reform in Indonesia, several liberalisation measures were undertaken that allowed BRI to transform itself into a profitable rural financial institution. Initial deregulation addressed some exogenous policy constraints. First, interest rates for both deposit and loan rates were freed that enabled the bank to set its own interest rates on most loans and deposits. Second, the stateowned banks were given time to adjust to the new environment and benefit from this deregulation for a period of five years, before further liberalisation increased competition by allowing entry of private sector banks. Third, deregulation introduced flexibility and autonomy that facilitated design of new products with extensive input from customers throughout the country. These instruments could meet local demand and provide institutional profitability.

Simultaneously, financial liberalisation also tackled endogenous constraints that affected BRI as an institution. These changes introduced staff incentives, accountability, autonomy, information technology, simplified procedures, thus transforming the original structure of BRI. First, its staff were trained to recognise and understand the local markets they served. This was augmented by mostly local hiring and deployment of staff to keep costs low and maximise on local knowledge and informational advantages. Second, internal practices were changed to treat each *unit desa* as a separate profit centre with its own balance sheet. Accountability was thus built in with each *unit desa* being held fully responsible for its financial health or otherwise. Supervision was regularised by visits of managers from BRI branches and head office. Third, managers and staff were authorised to take decisions on their own with only the largest loans to be referred to the BRI branch for approval.

Four, operations were systematically simplified to reduce administrative costs and housekeeping expenditures. Simple operations and specifically designed instruments restricted paperwork, interest calculations, records and book-keeping, etc. Five, computerisation introduced timely reporting, improved data management and provided early warning signals about defaults. Six, incentive schemes for both borrowers and staff were introduced. In addition, institutional reforms included appointment of an innovative president director and development of a new culture by focusing on professionalism, training, accountability, incentive, initiative, etc.

The key to BRI's success lies in its simple operations and well conceived incentive structure. It offers only one loan product, KUPEDES, a general credit scheme at commercial interest rates, and four savings products. It gives loans to individuals only at market interest rates, but less than those charged by informal financial intermediaries and uses a set of performance incentives backed by peer pressure as substitute for collateral. Socio-cultural factors such as persuasion through village heads and government are used to dissuade defaulters. Simple appraisal procedures consist of a half-page application form, countersignature by the village head and land certificates as collateral. The emphasis is on advance ensuring that the borrower has sufficient cash-flow to repay rather than on use of funds. Repayment terms are adapted to the regional context – thus repayment schedule may be weekly, monthly or seasonal. Further flexibility has been introduced by operating village posts and personal visits for repayment collection. The risks of the loan portfolio have been diversified by including financing of trade and services. This has also generated additional resources through current accounts maintained by traders and augmented traditional deposits.

Performance incentives for borrowers consist of a discount on interest payments which is refunded when all payments due have been made (0.5 per cent loan amount refunded) and credit limit is doubled for 100 per cent on-time repayment for previous loan. Staff incentives are linked to indicators as deposits mobilised, loan repayment rates and profits generated. As a result of this transformation, BRI's bad and doubtful debts are in the range of 2 per cent of their loan portfolio which is in sharp contrast to rural branches in India. Finally, it is important to note that creation of a conducive macroeconomic environment leading to investment of a substantial portion of the country's oil wealth in rural areas and resulting in rapid rural development, as well as a growing demand for banking services, contributed in no small measure to this success story [Robinson 1994].

The Indonesian example proves that it is possible to transform state-owned financial institutions to combine credible, locally administered incentive structures with government objectives and resources. It is a rare example of extremely successful lending to individuals in contrast to the group-lending combined with peer-monitoring concept exemplified by the Grameen bank experiment in Bangladesh which has been emulated with varying degrees of success in many developing countries, including India. The similarities between Indonesian and Indian public sector banks are not just structural but the problems and objectives are identical too. In the concluding section, we discuss how and in what areas can the Indonesian transformation be replicated and adapted to rural financial institutions in India.

V
Conclusion

The policy review attempted in Section III indicates that the trend of institutional restructuring in the rural banking sector so far indicates (a) regulated closure of loss-making rural branches or reduction through mutual consent, (b) important roles for old established private sector banks and entry of new ones, and (c) affirmative policy support for NGO financial institutions. While self-help groups and NGOs in micro-credit provision have been successful in many developing countries, and the entry of private sector institutions will undoubtedly introduce competition, it is questionable whether government policy objectives of equitable distribution of incomes and easing/relaxing financial constraints for marginal borrowers can be successfully realised through private agents. There are equally valid reasons for the government to supplement private credit facilities in rural areas as private intermediaries have different objectives and some of the benefits realised through interventionist policies are not internalised by these agents. There is a strong case therefore, for the continuation of state-owned banks in rural areas.

The discussion in this note shows that issues that need to be addressed in India during financial reform of rural branches are how to make them profitable, expand their outreach to meet the credit needs of small and marginal borrowers in rural areas and administer government objectives of targeting these borrowers through its policy of directed credit. This is partially echoed by NC (1998) which states that "...the issue of evolving a viable and efficient framework for rural credit has defied solution despite our long experience of the felt needs of rural credit and an examination of this issue by several committees and experimentation with various policies and institutions."[36]

The proposed solutions in NC (1998) for achieving financial viability emphasise flexibility, autonomy and accountability to restructure financial intermediaries at all levels. The details of these structural concepts however are discussed at a macro level, basically with reference to the first and second tier banks. For rural and small industrial credit, a special mention is made of directed lending, and the committee suggests that such loans should be made on "...commercial considerations...", that "...branch managers should be held fully responsible for these decisions..."[37] and "...credit delivery systems in respect of rural credit also need attention to make them more effective, speedy and transparent."[38] Second, it proposes that the interest rate subsidy for loans below Rs 2 lakh be removed.

What remains to be addressed however, is how to introduce these concepts at a micro level (i e, a rural bank branch) so as to bring about a structural change in the institution. It is here that the Indonesian transformation of its rural banking institutions can provide a good example. Like the Indonesian financial reform, some of the exogenous policy constraints that public sector banks in India operated under have been removed since 1990. Thus factors that affect profitability, i e, the interest spread have been left to market forces and banks are free to set their own interest rates. It must be noted though that the Indonesian deregulation allowed the public sector banks a period of five years

to benefit from interest rate deregulation, before increasing competition by allowing the private sector to operate. This has not been the case in India where competition through private sector entry has been imposed upon public sector banks simultaneously. Institutions need time to change and adapt to new environments and the NC (1998) recognises this when it states that "...it should be added that competition among the banks has itself not so far been a primary or even proximate objective of policy." This therefore is a sphere for concern and reconsideration.

Apart from deregulation of interest rates and removal of barriers to private sector entry, institutional reforms within the existing banking institutions still need to be initiated. These are critical to the turnabout of rural bank branches as the genesis of much of their problems lies in endogenous factors associated with management competence and systems, screening methods and adverse selection of borrowers, lending decisions, monitoring and supervision of loans, weak or non-existent information systems, etc (cf Section III of this paper). Note, for example, this comment by NC (1998) "...the banking system should be in a position to equip itself to identify the eligible clients based on prescribed norms in the government sponsored programmes so that the full responsibility for all aspects of credit decisions lie with it. Credit delivery systems in respect of rural credit also need attention to make them more efficient, speedy and effective."[19]

These factors uniformly afflict all the branches though the extent may vary. Institutional restructuring norms however, cannot be evolved and applied uniformly as a solution to common problems faced by these banks. It must be realised that not all, but only some, changes can be introduced universally in these institutions. Thus reforms in internal practices such as treating each branch as a separate unit for balance-sheet accounting and profitability, incentives payments to staff to improve loan recoveries, information systems, record-keeping and reporting systems, simplified loan procedures can be commonly evolved. Second, considering that majority of the rural branches' assets portfolio is skewed towards agricultural lending that makes it inherently risky, there is no harm in uniformly allowing rural branches to finance trade and services as a matter of policy. In Indonesia, this not only diversified the risk of the BRI but also helped in boosting resources.

But areas like product flexibility, use of local information systems and socio-cultural practices to evolve unique methods and solutions for optimal screening, monitoring, supervision and enforcement of credit contracts, as well as introduction of incentives require considerable institutional autonomy and decentralisation. These reforms have to be bank- and branch-specific – the management of each public sector bank ought to be given the freedom, and in turn, give the freedom to its subordinates at the rural branch level to propose and implement solutions for local customisation and adaptation of their operations. This is no simple task as each unit would have to study the area and the people it serves: their needs and preferences for savings, loans and repayments; devise incentives best suited to their clientele to minimise the incidence of default; employ local customs, mores and sanctions towards the common objective of maximising loan recoveries, etc. In summary, the orientation of each rural branch has to be that of the local moneylender whose strength lies in his intimate knowledge of the borrower and devising a set of mutually compatible incentives to reduce default (e g, inter linking credit contracts with labour or commodity contracts).

Institutional transformation therefore must begin with recognition of the fact that many of the public sector banks that have evolved presently into 'national' banks have originated in specific regions and to this day retain that identity through staff composition and location of head office and majority of their branches. For example, banks like Syndicate and Canara bank which originated in the south, still dominate those regions and would expectedly be more well informed about those regions than, for e g, State Bank of Bikaner and Jaipur, whose informational advantage obviously lies in Rajasthan.. These factors can be used to combine local knowledge along with cost reduction associated with local hiring and deployment of staff. Second, comparative information advantages would facilitate recognition of specific regional credit and deposit needs that undoubtedly vary across the country due to different business practices, investment opportunities, etc. The Indonesian transformation shows that designing savings and loans products that were well suited to the local conditions was an important factor in expanding credit access and deposit mobilisation by the rural banks.

Three, this factor would help tremendously in using socio-cultural factors for moral persuasion in debt repayment and providing early warning signals for debts turning bad. Social and cultural practices as well as the level of politicisation vary vastly in a diverse polity like India and the futility of adopting a uniform practice in this sphere is self-evident. Knowledge of local language, groups, and practices would facilitate screening of borrowers and avoid adverse selection of borrowers in the pre-loan stage. These institutional changes will obviously involve a substantial measure of decentralisation and autonomy in decision-making. This can be successfully married to the concept of accountability by making each branch separately accountable for its performance.

Finally, performance incentives for both staff as well as borrowers need to be introduced. Incentives, however, need to be devised with considerable care and caution such that participants benefit from monitoring. It is clear that there can be no wholesale prescription in this sphere and each branch would have to evolve its own, particularly with reference to borrowers. Theory tells us that much of the borrower-lender relationship is to do with 'hidden information' and 'hidden action' and the solution lies in devising suitable incentives to overcome these problems. Recognition of this principle has been successfully translated into practice by financial intermediaries in many developing countries but is yet to germinate in the Indian banking sector. Banks here have yet to adopt practices that give incentives to borrowers to repay rather than default; they have also yet to incorporate performance evaluation of staff linked to indicators like mobilisation of deposits, profits for their branch, loan recovery rates, etc. A clear, analytical understanding and application of this concept in Indian banking can actually go a long way in resolving one of the most pressing problems of rural branches, i e, systemic default.

The Indonesian experience shows us that incentives formed part of a mutually reinforcing set of design features, all directed at the common objective of screening out good borrowers from bad borrowers at minimum cost [Mosley 1995]. One of the key features, i e, market interest rates, have already been introduced in India and obviously apply universally. Expectedly, this would not only discourage unsound projects and attract genuine borrowers but also provide cross-subsidisation for government sponsored programmes that are to continue. Likewise, the need for simplified loan appraisal procedures has been recognised and solutions proposed in the recently submitted Gupta Committee Report on Agricultural Credit. But some features of the Indonesian incentive structure such as very short repayment intervals for loan instalments, facilities for repayment at or near the borrower's premises to reduce the borrower's transactions costs and provide the lender with early warning of potential problems in repayment would require customisation to suit local conditions and preferences.

Designing and establishing incentives at the level of each branch would require knowledge and understanding of concepts and objectives by both managers and staff. Obviously a key requirement here is training to adapt and reorient personnel to enable them to undertake this task. This is an area critical to institutional transformation since many of the problems are associated with managerial incompetence.

The structural similarities between the Indonesian and Indian financial systems and the commonalty between financial reform objectives indicate that there is much to be learned from the transformation of the Indonesian rural financial institutions. The latter country's experience shows that reforming rural financial institutions need not necessarily entail privatisation or closure; existing institutions can be reformed without incurring painful human costs associated with institutional closure.

Notes

[The views expressed here however are the author's own and not of the institution to which she belongs.]

1 Hereafter referred to in the text as NC (1998)
2 Chairman, M Narasimham. Hereafter referred in the text as CFS (1991)
3 For a detailed historical account, see Goldsmith (1983)
4 In 1946 the three largest cities and leading financial centres viz, Bombay, Calcutta and Madras together had one-eighth of all bank offices, many of the smaller cities and practically all villages were without a commercial bank office [cf Goldsmith 1983]
5 Thus 2 1 per cent of advances of scheduled commercial banks were made to agriculture in 1951 with industry and commerce aggregating 33 5 and 53 1 per cent respectively (*Source* Report on Trends and Progress in Banking in India RBI; *Annual Report*, RBI, various issues)
6 The number of functioning Indian banks came down from 328 in 1960 to 94 at the end of 1965 (*Source RBI Bulletin*, October 1966) The group of smaller (non-scheduled) banks almost disappeared as a result of mergers with the larger banks as from the point of view of financial strength, it were the smaller banks that did not meet the newly laid minimum efficiency criteria Ghosh (1979) has pointed out that coverage of services offered by commercial banks also declined consequently, as the smaller banks accounted for the bulk of borrower accounts, i e, personal accounts, commerce and agriculture, decline in the number of which was specially marked
7 *RBI Bulletin* (October 1966 pp 1151-57)
8 Ghosh (1979:50)
9 *RBI Bulletin* (Supplement, July 1979)
10 This follows from low incomes and therefore a low marginal propensity to save (Pandit 1991 finds empirical support for this hypothesis for Indian data) On the borrowings side there is a preponderance of agricultural borrowers that makes the banks' assets portfolio too risky given the covariant risks attached to agricultural loans
11 CFS (1991 74 75)
12 Ibid, p 71
13 NC (1998 2 3)
14 CFS (1991:34) states that "...perhaps the single most important cause for the...increase in expenditure has been the impact of the phenomenal expansion in banking." NC (1998) also reiterates this opinion
15 In the absence of any intermediation, lenders and borrowers would have to seek each other out individually, incurring substantial search costs and risk premium. This would have the effect of driving a big wedge in borrowing and lending rates, resulting in loss of consumers' surplus in the form of consumers failing to receive the market-clearing interest rate on their loans and deposits and an additional welfare loss of some consumers disappearing from the market altogether.
16 This is the producers' surplus enjoyed by the private agent, i e, the difference between the price he receives and the marginal cost of producing that unit The larger this wedge, higher would be his profits
17 The impact of the banking sector on savings behaviour in the Indian economy has been demonstrated by most econometric studies on the subject Fry (1988) estimates that over the period 1961-81, increased bank branch proximity exerted a substantial influence on the national saving rate in India, by as much as 4 7 percentage points Krishnaswamy et al (1987) found that increased banking facilities, measured by population per unit bank branch, had a significant and considerable impact on the savings rate Pandit (1991) too found the spread effect of bank branch expansion to be positive and significant in explaining the savings rate Finally, Chakravarty [RBI 1985] has pointed out the important role of banking infrastructure in acceleration of the savings rate from seventies onwards.
18 Thiagarajan (1975 1820-21) has pointed out that more than half of the financial surplus mobilised in rural areas is loaned in different urban markets in India as a result of the branching policy
19 The primary source of banks' balance-sheet information is the *Statistical Tables Relating to Banks in India* published by the RBI These tables however do not classify balance-sheets by branch categories to enable a detailed study on the subject
20 12 77 per cent, followed by metro (12 35), urban (11 90) and semi-urban (11 74) per cent respectively
21 4 40 per cent followed by metro (3 41), urban (3 30) and semi-urban (3 17) per cent respectively.
22 2 56 per cent Metro branches had the highest profit ratio at 2 82 per cent, the bank's overall average was 2 52 per cent
23 CFS (1991 75)
24 NC (1998 23)
25 CFS (1991 75)
26 Ibid, p 75
27 NC (1998 4)
28 The CFS model had conceived a rural banking structure as a fourth tier "...which could combine effectively the advantages of the local character of the RRBs and the financial strength and organisational and managerial skills of the commercial banks. ..it would be advantageous for the sponsor banks to segregate the operations of their rural branches through the formation of one or more subsidiaries, depending on the size, administrative convenience and business assessment of each sponsor bank. Each subsidiary should have a compact area of operations. This would be particularly desirable from the point of view of recruitment and deployment of manpower apart from providing the needed thrust to business operations and effective improvements in the control, supervision an information systems" [CFS 1991:76-77].
29 NC (1998:62).
30 Ibid, p 51
31 Ibid, p 62
32 *Report on Trends and Progress in Bankin in India, 1996-97* (RBI, 1998, pp 131-32)
33 Ibid, p 131
34 NC (1998:26)
35 The location of the BRI *unit desas* is simila to the rural branches of Indian public secto banks; equivalent to the block level and locate close to agricultural activity. The size of a typical rural branch is roughly the same a a *unit desa* in terms of assets, deposits an approximately the same size or larger (fo Indian banks)
36 Executive Summary of the NC Report release to the press on April 23, 1998, par 22.
37 NC (1998:27)
38 Ibid, p 59.
39 Ibid, p 59.

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Rural Credit Delivery: Performance and Challenges before Banks

V Puhazhendhi
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Development of the rural credit delivery system in the country has metamorphosed from monopoly of co-operatives to the induction of commercial banks and establishment of regional rural banks for improving the outreach and ensuring access to credit in rural areas. With the implementation of financial sector reforms, the accent is on ensuring the financial health of the system. Innovations in rural credit delivery had an impact on agricultural production and reduction of poverty due to increased flow of credit. Accelerating the pace of capital formation in agriculture, infrastructure development with focus on transportation and marketing, ensuring credit discipline will enable the rural sector to absorb more credit from institutional sources. The focus should be on strategies that are required for tackling issues such as sustainability and viability, operational efficiency, recovery performance, small farmer coverage and balanced sectoral development.

ENSURING access to credit in the rural areas for augmenting agricultural production, alleviating poverty and improving the efficiency of the rural credit delivery system has been an area of focus in the planning process in our country. Various measures initiated to improve the outreach of credit institutions, besides enhancing capital formation and production in agriculture, have been instrumental in alleviating poverty in the country. The changing economic scenario coupled with emerging segmentation of the rural credit markets pose new challenges to the rural credit delivery system. Financial sector reforms which seek to minimise governmental controls on credit institutions, impose stringent accounting norms and give freedom to banks from mandatory rural lending may create conditions not auguring well for rural development, especially for the vulnerable sections. Nevertheless, credit will continue to play a crucial role in securing the objectives of high growth rate, doubling of foodgrains production in the next decade, eradication of poverty and unemployment, especially of women, development of rain fed areas on a watershed basis, etc, as enunciated in the National Agenda for Governance and in the draft Ninth Five-Year Plan document [GOI 1998]. This paper reviews the performance of the rural credit delivery system in three focus areas of the rural credit markets, viz, agricultural, non-farm sector activities and poverty alleviation and the challenges that the banks are likely to encounter in the next decade. The paper also suggests strategies for overcoming these challenges.

I
Performance of Rural Credit Structure

The development of the rural credit delivery system had three distinct phases. The first phase (1904-1969) was characterised by the monopoly of the co-operative credit institutions while the second phase (1969-1991) witnessed an expansion of the network of credit institutions in order to improve the access of the rural population to institutional credit and other banking facilities even in the remotest parts of the country. This phase was marked by the induction of the commercial banks into the rural credit delivery system through their nationalisation in 1969 and the setting up of the Regional Rural Banks (RRB) all over the country, beginning in 1975, to provide low cost banking facilities to the weaker sections of the society. The number of branches of commercial banks which was 5,175 in 1969 increased manifold to 46,964 in 1997 while the RRB branches were 14,463 (1997). Simultaneous with the expansion of branch network, several measures were also initiated with a view to streamlining the delivery of rural credit. Such measures included (a) Lead Bank Scheme and preparation of District Level Credit Plans (DCPs), (b) Village Adoption Scheme, (c) opening of specialised branches for agricultural lending, (d) service area approach, etc. The third phase (1991 onwards), coinciding with the introduction of the financial sector reforms, is an attempt to transform the credit institutions into organisationally strong, financially viable and operationally efficient units. Viewed from a different perspective, the period between 1969 and 1982 saw the rural credit institutions focusing on augmenting and stabilising agricultural production while the period from 1982 focused on reducing poverty (through IRDP and other programmes) and creating employment opportunities with emphasis on financing non-farm sector activities.

The outreach of credit for agriculture has expanded significantly over time. The total short-term credit flow (in nominal terms) had increased from about Rs 589 crore in 1970-71 to Rs 17,691 crore in 1996-97 (provisional) while the term credit given for financing investment activities by the farmers increased from Rs 229 crore in 1970-71 to Rs 10,962 crore in 1996-97 (provisional). The growth in short-term credit to agriculture was 11.8 per cent during the period 1970-71 to 1981-82 but decelerated to 10 per cent during the period 1982-83 to 1991-92.[1] Term credit flow showed relatively better growth rate of 17.9 and 11.3 per cent, respectively, during the corresponding periods. (Table 1) Growth rates (nominal and real) both for short-term and term loans were higher during the third period indicating that financial sector reforms did have a positive impact on the flow of credit.

The higher growth in the first sub-period can largely be attributed to the induction of commercial banks and RRBs in a big way in the rural credit market and launching of Lead Bank scheme in the mid-1970s coupled with formulation of DCPs. This was also the period when the emphasis was on expanding the network of branches and widening of credit. The growth in agricultural loans had slowed down, except for short term, in real terms during the

subsequent two sub-periods but had accelerated during the third sub-period. While the improvement in the growth rates of credit augurs well for the rural sector, an area of concern is the declining trend shown by the priority sector lending, especially for agriculture loans by the commercial banks. Against a targeted 18 per cent, the proportion of advances to agricultural sector under priority sector lending declined from 16.9 per cent in June 1990 to 14.3 per cent in March 1996, despite including indirect advances for agriculture under priority sector lending from 1993-94 onwards. Indirect advances as a proportion of net bank credit constituted 1.3 per cent in June 1990. Thus, the decline in priority sector lending during the period 1990-91 to 1995-96 was 2.6 percentage points. However, a reversal of the reducing trend has been observed in 1996-97 (March) when loans issued for agriculture constituted 16.3 per cent of the net bank credit (Table 2). A similar trend could also be observed in the case of the priority sector lending whose share had declined from a peak of 42.9 per cent in December 1985 to 36.6 per cent in March 1995 but marginally improved to 41.7 per cent in March 1997

II
Impact of Credit on Agricultural Development

Foodgrain production accounts for about 63 per cent of agriculture output and hence its performance, to a greater extent influences the level of agricultural production in the country. The annual growth rate of foodgrains during the last three decades worked out to 2.67 per cent [GOI 1997]. Optimum use of material inputs, especially irrigation and fertilisers is a necessary condition for improving the production and productivity of crops. The share of area irrigated by wells (tubewells and other wells) in the net irrigated area increased from 38.1 per cent in 1970-71 to 52.9 per cent in 1992-93, mainly due to bank credit. By the end of the Eighth Plan, about 62 lakh hectares of potential was created under minor irrigation and the utilisation was 58 lakh hectares. Similarly, the increase in consumption of chemical fertiliser during recent times has been phenomenal and institutional credit has played a significant role in the increased use of material inputs. While the consumption of fertiliser per hectare of gross cropped area increased by only 18.34 kgs (from 13.61 kgs to 31.95 kgs) during the period 1970-71 to 1980-81, it increased by as much as 35.54 kgs during the following decade to 67.49 kgs in 1990-91 and further to 74.80 kgs in 1995-96. The production performance of agriculture as gross value of output (in real terms) had registered a marginal improvement in growth from 1.1 per cent during the first sub-period to 1.2 per cent in the second sub-period while the value of inputs used during the corresponding period had registered a growth of 2.5 and 2.6 per cent, respectively. The growth in short-term credit was 4.5 and 4.9 per cent during the two sub-periods.

Credit acts as a facilitator and it performs the important function of providing the farmers with the requisite control over resources affecting production. It is difficult to establish a direct relationship between credit and output as the former facilitates the adoption of technology and the level of inputs usage which in turn directly influence the production performance.[2] The impact of credit on inputs usage and inputs on output, estimated through a regression analysis, is presented in Table 3. The results of the regression indicate that there was significant and positive impact of credit on the level of inputs used, which in turn had a significant and positive impact on the gross value of output in agriculture

The increased flow of term credit has significantly contributed to the growth of capital formation in the private sector in agriculture. The estimated private sector capital formation (at 1980-81 prices) in agriculture and allied sectors had increased from Rs 2,051 crore in 1970-71 to Rs 6,193 crore in 1995-96. The growth rate of capital formation both in the private and public sector had decelerated during the second sub-period but had accelerated during the third sub-period (Table 4).

Different factors such as improved terms of trade in favour of agriculture especially during late 1980s and later growth in institutional credit for investment purposes, growth in income (GDP), may also have contributed to growth in private capital formation. The share of term credit in private capital formation, which during the first sub-period was about 33 per cent, increased to 51 per cent during the second sub-period. However, it declined to 26 per cent during the third sub-period. On the one hand, despite the increase in the relative share of credit to capital formation in the private sector during the second sub-period, the growth had decelerated in the private sector while on the other, during the third sub-period although the relative share of credit had declined, growth in capital formation in the private sector had accelerated. This raises the widely debated issue of complementarity between the capital formation in the private and public sectors [Mishra and Chand 1995; Rao 1994, 1998 and Shetty 1990].

The promotion of the rural non-farm sector (RNFS) through credit has come to be increasingly recognised as an alternative to providing employment and income generation, due to the failure of the agriculture sector to absorb the burgeoning labour force in the rural areas. The analysis of the data on credit limit to the RNFS[3] by the commercial banks showed that credit

TABLE 1. TREND GROWTH RATES OF FLOW OF SHORT-TERM AND TERM LOANS

(Per cent per annum)

Period	Short-term Credit		Term Credit	
	Nominal	Real	Nominal	Real
1970-71 to 1996-97	12.3	5.9	14.1	5.3
1970-71 to 1981-82	11.8	4.5	17.9	9.2
1982-83 to 1991-92	10.0	4.9	11.3	2.3
1991-92 to 1996-97	20.6	14.9	17.5	12.5

TABLE 2 SHARE OF PRIORITY SECTORS IN BANK CREDIT

(Per cent)

Year	Agriculture		Small Scale Industries	Other Priority Sectors	Total Priority Sector
	Direct	Indirect			
June 1969	1.3	4.0	8.6	0.7	14.6 (441)
December 1976	7.6	2.5	13.0	2.6	25.7 (3,395)
December 1980	12.3	3.3	16.5	3.8	35.9 (7,888)
December 1985	15.4	2.9	19.5	5.0	42.9 (20,648)
June 1990	16.9	1.3	15.6	9.0	42.3 (38,649)
June 1991	15.0	1.0	15.8	8.2	40.0 (42,093)
December 1992	14.4	1.3	14.9	7.3	37.9 (46,596)
December 1993	13.8	1.2	14.6	6.8	36.4 (49,822)
December 1994	13.0	1.5	14.4	8.7	37.4 (57,349)
March 1995	12.3	1.6	14.3	7.4	36.6 (61,794)
March 1996	12.4	1.9	16.0	7.5	37.8 (69,609)
March 1997 (P)	13.6	2.7	16.6	8.7	41.7 (79,131)

Note Figures in parentheses indicate amount (Rs crore) of credit for priority sector

flows increased from a level of Rs 1,251 crore at end-June 1973 to Rs 26,783 crore by end-March 1995 while the number of accounts increased from 2.3 lakh to 43.6 lakh. Despite this phenomenal growth in absolute terms, the proportion of number of accounts, credit limits sanctioned and amount outstanding as per cent to the bank credit did not show any remarkable change. The growth rates computed for the two periods indicated that like in the case of agricultural loans, there was a deceleration from 14.3 per cent (1973 to 1982) to 12.6 per cent (1983 to 1995).

Credit extended to rural industries as a percentage of total credit amounted to 20.3 per cent (as of March 1991) despite the fact that the rural industrial sector accounted for over one half of the total industrial units in the country [NABARD 1994]. One of the policy options in such a situation was to increase the availability of credit through the mechanism of refinance. The advent of NABARD[4] increased the availability of refinance from Rs 1.25 crore during 1985-86 to Rs 617 crore during 1997-98 while the cumulative refinance had gone upto Rs 3,013 crore for the RNFS (excluding the ISB component under IRDP). The growing importance of the RNFS in the loan portfolio of NABARD could be judged from the fact that the relative share of this sector to the total refinance disbursed for investment credit increased from 3 per cent in 1987-88 to nearly 16 per cent in 1997-98. This growth could largely be attributed to the promotional efforts of NABARD. The promotion of the RNFS financing by NABARD also facilitated the co-operative banks and the RRBs to make available credit for this sector. The co-operative banks (SCBs and SLDBs) and the RRBs together accounted for a major chunk (79.3 per cent) of the cumulative refinance disbursed by NABARD till March 1998. The trend growth rate in the disbursement of refinance to the RNFS by NABARD was 35.1 per cent during the period 1987-88 to 1997-98. The disbursement of refinance by NABARD to the RNFS commenced from the year 1985-86 but because of the low base in the initial years, growth rates were computed for the period 1987-88 to 1997-98.

Poverty reduction through gainful employment or by way of asset creation supported by credit for raising the income levels of the poor is the cornerstone of the IRD Programme, implemented throughout the country from 1982. Under the programme, 52 million families have been benefited (till March 1998) and total credit mobilised from banks was to the tune of Rs 20,324 crore. The assistance from the banks and the subsidy by the government had resulted in investment of Rs 32,824 crore at the ground level (Table 5). Commercial banks and RRBs together accounted for a major share (nearly 85 per cent) of the credit disbursed under IRDP while the share of co-operative banks was a meagre 15 per cent (Table 6).

The results of the last Concurrent Evaluation revealed that 14.8 per cent of the old beneficiaries assisted under the programme could cross the revised poverty line of Rs 11,000 (at 1991-92 prices) while 50.4 per cent of the families were able to cross the earlier poverty line of Rs 6,400. The IRDP assets had generated an incremental income of more than Rs 2,000 for 56.6 per cent of the assisted families at the national level. In about 29.3 per cent of the cases, the assets had not generated any income [GOI 1996]. Despite criticisms and difference of opinion on efficiency in its implementation, there are no two opinions on the programme's success, albeit limited, in reducing poverty in India.[5]

A series of evaluation studies conducted by various agencies on IRDP documented several weaknesses in its implementation such as (i) poor quality of assets procured by the beneficiaries, (ii) inadequate financial assistance including subsidy, (iii) lack of inter-agency co-ordination in ensuring backward and forward linkages, (iv) concentration on a few activities, (v) misutilisation of loans for meeting the consumption requirements, and (vi) inappropriate identification of beneficiaries and activities. The study also revealed that only 3.9 per cent of the IRDP beneficiaries received training under TRYSEM and as much as 47.2 per cent of the TRYSEM trained beneficiaries could not graduate for undertaking economic activities [GOI 1996].

The recovery performance under IRDP was relatively poor (41 per cent as at end March 1996) compared to the overall recovery performance of the banks. Wilful default by beneficiaries (43.6 per cent of the sample beneficiaries) expecting loan waiver by the government was a major factor contributing to the poor recovery under IRDP. The other factors included lack of co-ordination among different implementing authorities, wrong identification of beneficiaries and activities, inadequate follow up, misutilisation of loan, etc. The programme also had a debilitating effect on the health of the financial institutions due to increasing proportion of non-performing assets to the loan portfolio as a result of defaults in loan repayments by borrowers, directives of the government to the banks to lend at concessional rates of interest leading to insufficient margins, fixing of targets, lack of freedom in the choice of clientele, etc.

Despite the massive subsidy-credit linked programme under IRDP, poverty levels in India continue to be high [UNDP 1997] and many people still do not have access to formal credit institutions. It is this inability of credit institutions to cover a sizeable segment of the rural poor due to high cost of administering such large numbers of small loans as also their perceived lending risks (in the absence of any collateral), which has prompted a number of non-governmental organisations (NGOs) to enter the rural credit scene by way of organising the poor into informal groups for mutual help and benefit. Many of these groups have provided credit support through their credit institutions.

Table 3: Regression Analysis Results

Dependent Variable	Independent Variable	Constant	Coefficient	Standard Error	R^2	Number of Observations
1970-71 to 1995-96						
Gross value of output	Gross value of inputs	2.67	0.52	0.03	95	26
Gross value of inputs	ST Credit	0 85	0.89	0.05	93	26
1970-71 to 1981-82						
Gross value of output	Gross value of inputs	3.02	0.43	0.09	69	12
Gross value of inputs	ST Credit	0.73	0.93	0.18	72	12
1982-83 to 1995-96						
Gross value of output	Gross value of inputs	2.59	0.54	0 05	90	14
Gross value of inputs	ST Credit	1.18	0.80	0 14	74	14

Table 4: Trend Growth Rates of Capital Formation in Agriculture

(Per cent per annum)

Capital Formation in	1970-71 to 1995-96	1970-71 to 1981-82	1982-83 to 1991-92	1991-92 to 1995-96
Public sector	1.0	8.3	(-) 5.3	6.0
Private sector	3.1	4.5	3.8	8.7

With a view to evolving supplementary credit strategies for reaching the unreached rural poor in a cost-effective way, NABARD had in 1992-93 introduced the pilot project for linking self-help groups (SHGs) with banks. The project has shown remarkable progress over the years. Starting from a modest number of 225 groups linked in the year 1992-93, the number of groups linked with banks, as on March 31, 1998, stood at 14,283 (76 per cent are women groups). Thirty commercial banks, 94 RRBs and 16 co-operative banks participated in the project and disbursed Rs 24 crore as bank loan till March 1998. The Small Industries Development Bank of India (SIDBI) also launched in 1994 a scheme for micro-credit under which financial support to well managed NGOs for on-lending to rural poor with emphasis on women for setting up micro-enterprises is envisaged. Cumulative assistance under the scheme was Rs 8 crore to 72 NGOs with a membership of 48,000 poor.

III
Future Expectations from Banks

The demand for credit in agriculture is showing increasing trend due to commercialisation and diversification that has taken place in the sector over time. The credit needs of the non-farm sector that holds promise for the future also have to be taken care of. Taking cognisance of the future potential and demand, the Working Group on Agricultural Credit has estimated that a total of Rs 2,29,750 crore of credit (Table 7) may be required by the agricultural sector during the Plan based on 4.5 per cent growth in the sector during the Ninth Plan period [GOI 1996]. This would mean that an annual growth rate of 16 per cent in the credit flow has to be maintained during the Ninth Plan period and beyond. To achieve the projected demand of credit for agriculture, the additional flow over the end period of Eighth Plan would increase from Rs 9,658 crore in the first year to Rs 15,607 crore in the terminal year of Ninth Plan. The estimates of supply of credit, based on the deposits of banks, is of the order of Rs 72,316 crore during the first year of the Plan, i e, 1997-98 and Rs 1,40,722 crore during the terminal year of the plan, i e, 2001-2002. The estimates of the resource gap,[6] as per the working group, will be of the order of Rs 9,658 crore during the first year of the Plan and will reach a level of Rs 15,607 crore during the terminal year.

With the recent programme of doubling the food production in ten years (by the year 2008), the envisaged growth rate in agriculture would be 6.11 per cent. This would translate into a higher credit need for agriculture production and investment activities. Accordingly, the estimated credit demand for agricultural development can be placed at Rs 46,000 crore in 1997-98 and Rs 54,300 crore in 2002-03. The estimated credit flow in the terminal year of Eighth Plan (1996-97) was of the order of Rs 26,000 crore. Hence, the additional resource gap will be Rs 20,000 crore in 1997-98 and Rs 28,300 crore in 2002-03.

The credit needs of the rural non-farm sector which holds promise for weaning away the excess working population in the agriculture sector also have to be satisfied. The additional investment required, for achieving 8.1 per cent growth rate of employment in the RNFS by 2001, is estimated to be around Rs 31,800 crore. It is further estimated that the formal institutional credit support may form about 60 per cent of the total credit requirement, i e, Rs 19,200 crore and the rest may have to be met by the informal sector [Kotaiah 1998]. Further, the credit requirements of the members of two lakh SHGs which are proposed to be linked to the credit institutions in the next five years will have to be met.

Viewed against the past performance of the banks in the dispensation of credit during the plan periods, the challenges to the rural credit institutions are enormous. The performance (achievements against targets) of all banks, including co-operatives, declined from 89.3 per cent during the Seventh Plan period to 86.9 per cent during the Eighth Plan period. The shortfall in respect of investment credit was found to be more in the Eighth Plan period.

The future strategies, in a scenario of wide gap between demand and supply of agricultural credit, must focus mainly on resource mobilisation to meet the growing demand of credit. The implementation of the financial sector reforms since 1991-92

Table 5: Performance under IRDP

Year	Number of Families Assisted (lakh)	Credit Mobilised at Ground Level (Rs in crore)	Total Investment (Rs in crore)
1980-81 }			
1981-82 }	54.41	756.64	1,179.9
1982-83	34.55	713.98	1,073.57
1983-84	36.85	773.51	1,179.6
1984-85	39 81	857.48	1,329.68
1985-86	30 60	730.16	1,171.26
1986-87	37.47	1,014.88	1,628.26
1987-88	42.47	1,175.35	1,902.79
1988-89	37.72	1,231.62	2,000.09
1989-90	33.51	1,220.53	1,985.96
1990-91	28.98	1,190.03	1,998 89
1991-92	25.17	1,133 26	1,934.25
1992-93	20 62	1,021.12	1,715.28
1993-94	25.38	1,408.44	2,365.09
1994-95	21.15	1,450.58	2,458.89
1995-96	20.90	1,701.33	2,778.49
1996-97	18.93	1,954.78	3,086.78
1997-98	16 97	1,990.68	3,035.68
Total	525.49	20,324.37	32,824.46

Table 6: Bank Groupwise Disbursement of Credit for IRDP

(Rs in crore)

Year	Commercial Banks	Regional Rural Banks	Co-operative Banks	Total Credit
1982-83	540.29	*	173.69	713.98
1983-84	633.27	*	140.24	773.51
1984-85	721.75	*	135 73	857.48
1985-86	632.29	*	97.87	730 18
1986-87	892.5	*	122.38	1,014.88
1987-88	1,021.69	*	153.66	1,175.35
1988-89	751.89	314.3	165.43	1,231.62
1989-90	736.35	336.29	147.89	1,220.53
1990-91	719.52	318.54	151.97	1,190.03
1991-92	700.74	269.82	162.7	1,133.26
1992-93	626	253.15	141.97	1,021.12
1993-94	816.64	350.77	241.03	1,408.44
1994-95	842.39	352.04	256.15	1,450.58
1995-96	1,023.35	382.21	295.77	1,701.33
1996-97	1,151.62	491.73	311.43	1,954.78
1997-98	1,193.45	504.05	293.18	1,990.68
Total	13,003.74	3,572.9	2,991.09	19,567.75

Note * included in commercial banks.

also appears to have had an impact on the flow of credit to the various sectors of the rural economy. The prudential norms of accounting like capital adequacy, income recognition, provisioning and the possibilities of reduction in the share of 'directed credit' as a part of the financial sector reforms are likely to have far-reaching implications for micro-credit and credit institutions. Data on recent disbursements to the priority sectors by commercial banks show a declining trend indicating that these banks are likely to shy away from lending to sectors which are perceived by them as high risk borrowal accounts due to high transaction costs and delinquency in repayment of loans. A lesson learnt from the Indian experience is that commercial banks are not likely to expand their lending portfolio on their own unless directed to do so.

IV
Issues and Strategies

Financial intermediation has become complex covering a broad spectrum of activities ranging from micro-credit at lower end to corporate/market instruments at the higher end. The complexities of financial intermediation necessitate specialisation both in terms of organisational reorientation and upgrading the skills of its personnel to deal effectively and efficiently with such activities. The financial sector reforms being implemented in the country, coupled with the specialisation required in financial intermediation, raise many important issues that need to be taken cognisance of to ensure a sustainable and effective rural credit delivery system. Some of the major issues are as follows.

Sustainability and Viability

Sustainability implies that a credit programme is to be so directed as to continuously increase the capital base of intermediaries to sustain further expansion of their lending business on a long-term basis. In order to be sustainable, the credit institutions are required to have sufficient margin between lending rates and the cost of funds raised for lending, to cover non-financial transaction costs. Despite the impressive gains made by the rural credit delivery system in terms of resources mobilisation, geographical coverage and functional reach in last two decades, there has been a deterioration in the financial health of the credit institutions. The emphasis on quantitative targets has resulted in poor quality of lending, which in turn adversely affected the viability of the structure itself. Implementation of government sponsored credit linked poverty alleviation programmes with high transaction cost and default rate, and undertaking public distribution system (PDS) by co-operatives, affected the viability of rural lending [Puhazhendhi 1996]. The ACRC recommended that the minimum lending rate to be charged by CBs, RRBs, SCARDBs and PACS was to be 14.5 per cent, 16.4 per cent, 12.8 per cent and 15.9 per cent, respectively, at the then prevailing costs and business levels (1986-87) [RBI 1989]. A limited analysis of the operating and net margins of the SCBs indicated that during 1996-97, as many as 21 of the 28 SCBs had operating margins of less than 2 per cent while the net margins was less than 1 per cent. Most of the SCBs in the north-eastern region had negative net margins ranging from 5 to 13 per cent [NABARD 1998b]. The application of prudential norms to the co-operatives from 1997-98 is likely to further reduce the margins. The average net margin in the case of RRBs deteriorated from (–) 2.54 per cent to (–) 3.72 per cent.

The two options available to the credit agencies to become viable are (i) increasing the volume of business with the existing interest rate structure and (ii) charging break-even level of interest at the existing level of business. This brings us to the next question: What interest rates should the institutions charge on their loans? Often it is argued that adequacy and timely availability of credit is more important rather than its price and, therefore, a hike in interest rates is indeed justifiable. In the Indian context, however, where the interest rates were deliberately kept low (till 1991-92) under the administered regime to promote agricultural development the outcome of a sudden hike in interest rates, especially its impact on the demand for credit is not known in the absence of specific studies. Despite total deregulation of interest rates, co-operatives and RRBs are not in a position to charge these rates because of the compulsions of the prevalent financial market. The commercial banks, being the market leaders, could set the interest rates which the other credit institutions may follow. Viewed against the inflation rates in the recent years, existing interest rates appear to be high and, therefore, increasing the interest rates may not be feasible. Further, the traditional farming nature with high degree of risk realises low rate of return and hence increasing the rate of interest may tend to be counter-productive. A hike in interest rates has to be in tune with what the rural credit market is able to bear given the returns from investments in agriculture and other rural activities. In any case, interest rates based on high costs of providing services due to inefficiency cannot be justified. Thus, the only option available is increasing the operational efficiency of the credit institutions through increasing the volume of business and cutting the transaction and risk costs. There is scope for increasing the volume of business without adding to the costs of the credit institutions as there are economies of scale [Desai 1996].

Operational Efficiency

Mere raising of interest rates is not the only way of achieving sustainability by the credit institutions. Within the broad macro-economic framework, sustainability also has to be aimed at through improving productivity of bank employees, efficient fund management, maintaining financial links, better record-keeping, collecting and maintaining appropriate information, etc. All these tend to reduce the transaction costs significantly. The closer the system is to customer target groups, the more efficient it can become and as a result be able to lower the cost of credit. Since different partners in the process of financial intermediation comprising borrowers and credit institutions bear transaction costs of different magnitudes, a partial transfer of transaction costs to borrowers or NGOs may help to reduce the burden on financial intermediaries and increase their viability. Transaction costs may also be sharply reduced and access to financial services for new customers belonging to target groups may be expanded by financial innovations, such as formation of borrower groups, the use of computerised accounting and monitoring systems.

There are several other cost factors which should not be lost sight of especially while considering the turn-around of financial institutions. Human resource development and staff motivation, financial product development during the pilot phase and development of new financial instruments are some of these costs. Strategies may have to devised to enable credit institutions to meet these costs till they attain operational sustainability. NABARD provides grants out of Co-operative Development Fund to selected co-operative banks for

TABLE 7 ESTIMATES OF DEMAND FOR CREDIT DURING THE NINTH PLAN

(Rs crore)

Year	Demand		
	Short-term	MT/LT	Total
1997-98	22,500	10,875	33,375
1998-99	25,650	12,995	38,645
1999-2000	29,250	15,530	44,780
2000-01	33,500	18,608	52,108
2001-02	38,500	22,342	60,842
Total	149,400	80,350	229,750

such purposes and to RRBs from out of other promotional funds. In the long-run, however, institutions should be in a position to bear this cost from their own operational surplus.

Recovery Performance

The build-up of overdues has serious implications, since a large number of farmers who are still outside the purview of institutional credit suffer on account of non-availability of credit. The overdue position of different entities of rural credit delivery structure show that it has been an all pervasive phenomenon across different agencies. Co-operatives are a shade better than RRBs and commercial banks in the recent years in terms of overdue rates (Table 8).

Political intervention, deficiencies in loaning procedures of the credit institutions, especially those pertaining to appraisal, supervision and control have also contributed to the malady of high overdues [Desai 1990, Desai 1996]. Poor credit discipline and consequent build-up of overdues over the years have severely restricted the recycling of funds by rural credit institutions and thereby reduced their ability to sustain their credit operations. The high overdues have also impaired the eligibility of the credit agencies for availing of refinance facility from the higher tiers. This is particularly so in the case of RRBs and the co-operatives which heavily depend on NABARD for their lendable resources. Mounting overdues not only increase the risk but also result in increasing the transaction costs for effecting recovery. Ageing of overdues has added another dimension to the problem since these are to be classified as non-performing assets (NPA) of the banks and provisions have to be made accordingly. The NPA of commercial banks constituted 18 per cent of the total outstanding advances and in case of the RRBs it was 36 per cent (as at end-March 1997). In case of the co-operatives, overdues more than three years constituted 23 per cent of the total overdues for central co-operative banks and 31 per cent for SCARDBs (end June 1997) [RBI 1998]. This has happened despite the fact that a sizeable amount of overdues was written-off under the Agricultural and Rural Debt Relief Scheme, 1991. Wilful defaults which constitute a large proportion of the overdues are due to the perception of the borrowers that credit is dispensed due to political directives and as a result of the bankers' empathy with the borrowers. Unless banks strive hard to change this perception through building up appropriate rapport with rural borrowers and closely monitor the end-use of loans, the recoveries of bank loans may not improve. Another solution to this malady is through providing more autonomy to the lending institutions and at the same time making them accountable for their financial results. Poor response to the Crop Insurance Scheme and loss-making operation of the same have also contributed to non-wilful defaults. There is, therefore, a strong need for an effective relief mechanism to encourage institutional credit for micro-enterprises in agriculture and other economic activities in rural areas.

Risk Fund

In this context, the creation of a broad based Risk Fund may facilitate in taking care of the risks associated with natural calamities and failure of crops which could result in non-wilful defaults. The government of India, state governments, central financial institutions and banks could contribute to the fund. The constitution of a National Agricultural Credit Relief and Guarantee Fund was one of the recommendations of the All-India Rural Survey Committee for boosting agricultural lending. The ACRC and the Working Group also suggested the creation of such fund. This will be in addition to the existing National Rural Credit (LTO) Fund and National Rural Credit (Stabilisation) Fund maintained with NABARD.

Small Farmer Coverage

Access of small and marginal farmers to credit is limited due to several institutional and non-institutional factors [Majumdar 1995, 1996]. Not only is there need to provide access of credit to marginal and small farmers but their capabilities in adopting innovative technologies need to be built up. This would entail that banks not only provide access to credit but also render technical advice. In other words, a 'credit +' needs to be adopted by the banks to improve the credit absorption capacities of this clientele and in effecting recovery of loans. This would require the revival of the concept of 'Farm Clinics' or 'Krishi Gyan Kendras'. The recent suicides by farmers in various parts of the country underscores the need for such an approach.

The innovations experimented in micro-credit delivery using informal groups (self-help groups) and non-government agencies (NGOs) as both financial and/or non-financial intermediaries must be replicated for higher outreach of credit for agricultural development. Encouraging corporate bodies to enter into contract farming with small and marginal farmers will not only enhance the credit flow but also to some extent ensure effective recycling of funds.

Distortions in Sub-Sectoral Credit Flows

The sectorwise flow of term credit from institutional sources during 1997-98 revealed that the major share of credit disbursed was for farm mechanisation (28 per cent) followed by RNFS (16 per cent) and minor irrigation (13 per cent) [NABARD 1998]. This trend indicates that the lending by banks was by and large security oriented with anticipation of regular and assured income. Sectors allied to agriculture such as poultry, fisheries, etc, and non-farm activities were given relatively less priority in the loan portfolio of institutional sources. From the supply point of view, institutional agencies prefer to finance activities which have quick maturities and risk of default is relatively less than long gestation projects. Further, contribution to environmental upgradation through agro-forestry, plantations and horticultural projects do not get factored in the viability analysis.

On the demand side, prospective beneficiaries are also weary of availing credit for such activities in view of the long gestation period involved, adding up to the interest burden without commensurate returns in the initial years. Hence, credit flow for long gestation projects is rather subdued. This is clearly brought out by the decline in the availment of finance for tea plantations. A dual interest policy, therefore, will have to be adopted for two groups of sub-sectors within agriculture – one representing normal activity with low gestation and minimal risk of failure and the other representing investments which are prone to high risk coupled with having long gestation. Rate of interest to be charged for latter group of investments would have to be lower. Elongated repayment period than at present may also help to boost the demand for these investments.

TABLE 8: PROPORTION OF OVERDUES TO DEMAND, AGENCYWISE

Agency	1992	1993	1994	1995	1996	1997
DCCBs	34	32	32	30	31	31
SLDBs	50	48	43	38	39	31
RRBs	60	59	54	49	39	43
CBs	46	44	44	43	39	NA

Source: Reserve Bank of India, various issues of *Report on Currency and Finance*, Volume I for commercial banks and NABARD publications on co-operatives and RRBs.

Institutionalisation of wasteland development programme by involving quasi-government agencies/corporate bodies for developing vast stretches of publicly owned wasteland, will also give a big boost to the credit flow in this sub-sector.

Priority Sector Allocation

Recent policy changes in utilisation of priority sector allocation for Rural Infrastructure Development Fund (RIDF) by CBs, though a welcome step, may further contribute to shortage of credit flow for agriculture since the CBs may prefer the latter due to safety in loaning. Hence, there is a need to review the process of priority sector allocation norms and a suitable system must be evolved which should take care of both avoiding the shortfall in agriculture loans and improve infrastructure development.

Flow of Credit to Hi-Tech/Export-Oriented Projects

Flow of credit to hi-tech projects has always been in tune with the demand. Presently there has been a sizeable decline in financing of such units for a variety of reasons. These projects, especially export-oriented units, are found to suffer on account of low productivity, poor quality control, inadequate export price realisation, lack of infrastructure, marketing problems, etc [NABARD 1997]. To reverse the decline in the flow of credit to hi-tech agriculture sector, the major issues which may have to be addressed are (a) appropriateness of the imported technology for Indian conditions, (b) credibility of the collaborators, (c) buyback arrangements for produce, (d) dissemination of market intelligence by governmental agencies, (e) strengthening the infrastructure and support systems, and (f) consultancy support for new entrepreneurs. This also emphasises the need for upgrading the skills of the bank staff to properly appraise the projects relating to hi-tech/EOUs, so that all risks are accounted for in the appraisal system.

In conclusion, accelerating the pace of capital formation under public sector, ensuring remunerative prices for agricultural produce, infrastructure development with focus on transportation, marketing and other post harvest facilities, etc, will enable the rural sector to absorb more credit from institutional sources. Ensuring credit discipline through a ban on loan waivers would help in effective recycling of funds and creating a conducive environment for lending. Financial institutions and various government departments have to work in a co-ordinated manner to address the above issues for ensuring greater flow of credit to this sector.

Notes

1 Growth rates were estimated for three sub-periods, viz, 1970-71 to 1981-82, 1982-83 to 1991-92 and 1991-92 to 1995-96. The first sub-period to assess the impact of nationalisation on credit flow and the second sub-period to assess the impact of the establishment of NABARD with a mandate to channelise the flow of institutional credit to rural areas while the third sub-period coincides with the implementation of the financial sector reforms in the country. The number of observations being inadequate for the third sub-period, the results could at best be treated as indicative. The growth rates were computed using a semi-log function, i e, $\ln Y_t = a + bt$. The nominal values for short-term credit were converted to real terms (1980-81 prices) by using implicit deflators derived from value of inputs used in agriculture while in the case of term loans, the implicit deflators for capital formation for agriculture and allied sectors in private sectors given in the *National Accounts Statistics, 1998*, published by Central Statistical Organisation, New Delhi.

2 Credit from both formal and informal sources is used in agricultural production. Since reliable data on credit extended by informal sources are not available, any attempt to establish the relationship between short-term credit disbursed through institutional agencies and agricultural output is likely to result in over-estimation of the impact of credit. Notwithstanding the limitations, an attempt was made to assess the impact of credit on agricultural output and use of inputs. Time series data for 22 years from 1973 to 1995 for the identified variables were used for the analysis. The data on value of inputs used excludes the wage component.

3 In the absence of data separately on the credit flows to the RNFS, data on credit flows to artisans and craftsmen as well as other small-scale sectors by the commercial banks have been taken as aproxy and analysed for the period 1973 to 1995. Data have been compiled from *Banking Statistics, 1972-1995*, published by the RBI.

4 SIDBI was established in 1990 as another channel of refinance for the RNFS. Data on the extent of refinance and direct finance by SIDBI to rural units is not separately available. Further, SIDBI refinance operations are largely concentrated in urban and semi-urban areas.

5 The Planning Commission estimated the incidence of poverty at 37.4 per cent in 1983-84 and 29.9 per cent in 1987-88 while the Expert Group on Estimation of Proportion and Number of Poor, estimated the incidence of poverty in 1983 as 44.8 per cent and 39.3 per cent in 1987-88. For the period between 1987-88 and 1993-94, while the Planning Commission estimated that the population below the poverty line declined by 2.89 percentage points, a study conducted by Gangopadhyay, et al, of the Indian Statistical Institute, Delhi estimated the decline at 6.25 percentage points. Both the estimates are based on the methodology recommended by the Expert Group.

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Institutional Change in India's Capital Markets

Ajay Shah

An attempt is made in this paper to understand the functioning of capital markets in India from the perspective of the need to strengthen the financial sector. A well functioning market is defined as one which performs the information processing function effectively and thereby channels capital wisely. This abstract picture is linked up with Indian institutional realities and contemporary debates about public policy in connection with financial markets.

FROM the early 1980s onwards, there has been a shift in India's economic policy regime, away from direct influence upon resource allocation by the state, towards a greater role for markets. One major plank of these reforms has been an attempt at developing financial markets as an alternative vehicle determining the allocation of capital in the economy.

In India, the financial sector (and securities markets in particular) attracted heightened attention from policy-makers in the aftermath of the scam of 1992. This led to a set of state initiatives on the equity and debt markets in the following years. In this article, we primarily deal with changes in institutions governing securities issued by firms, i e, shares and bonds.

In addition, the problems in east Asia in 1997 have led to a heightened appreciation, worldwide, of the vital importance for a developing country of a financial sector which effectively processes information and wisely allocates resources Stiglitz (1998) describes the financial sector as 'the brain of the economy'. Most policy- oriented economists have talked about the need for strengthening the financial sector.

In this article, we seek to understand the functioning of capital markets in India from this perspective, where a well functioning market is defined as one which performs the information processing function effectively, and hence channels capital wisely. We seek to link up this abstract picture with Indian institutional realities and contemporary debates about public policy in connection with financial markets.

I
Two Alternative Styles

Market economies use financial markets to guide resource allocation. Here, households create savings, and firms compete in obtaining access to capital. Every project proposed by a firm can be viewed as an idea to produce certain goods using certain technologies (this includes the choice of raw materials, technology and managerial team), and financial markets play a major role by denying resources to certain projects.

There are two fairly different approaches which can be adopted in allocating scarce savings to the most deserving investment projects.

One style of functioning, called 'OTC contracting' is based on direct evaluation by intermediaries who process information. This is the style seen in India in the traditional financing patterns of IDBI, ICICI, banks, etc. In OTC contracting, individuals who work for finance companies, such as IDBI, evaluate the merits of alternative projects which appear before them, and allocate resources to the projects which (they feel) offer the best risk/return tradeoffs.

The allocative efficiency of financial systems based on 'OTC contracting' depends upon (a) the information available to employees of these finance companies; (b) the incentives that they have to expend energy and effort in processing this information well; and (c) the incentives that they have to finally make decisions based on their analysis. In India, the operation of banks and financial institutions is unsatisfactory on all these three counts:

(1) The information set which is brought to bear upon project evaluation is limited.

(2) The contractual relationship between the finance company and the employee is not conducive to maximising the quality of information processing, especially with government-owned finance companies.

(3) Finally, there are external pressures which seek to distort funding decisions, especially with government-owned finance companies.

These three problems are hardly unique to India; they have afflicted banking systems world wide, with varying degrees of severity [Caprio 1997]. Weaknesses of information processing by banks played a prominent role in producing the east Asian crisis of 1997and Japan's macroeconomic problems today are partly related to the estimated $1 trillion in bad loans given out by the Japanese banking system. The recurrence of banking crises across time and space suggests that we should seek structural explanations. The three problems highlighted above are concerned with the poor incentives of employees of finance companies to process information wisely.

When OTC contracting takes place under institutional arrangements which inadequately address these problems, as is common with public sector banks and financial institutions in India, it is associated with poor information processing. Conversely, we may expect superior information processing when OTC contracting takes place under institutional arrangements which generate better incentives for employees, such as venture capital funds, private equity funds, and private banks.

The alternative style of functioning that can be adopted by a financial system relies upon securities markets. Here, trading on a secondary market for securities issued by a firm (primarily bonds and shares) determines their price. Firms can raise funds by selling additional securities, but the price that the newly issued securities command will obviously be quite close to those that were previously issued. The allocative efficiency of financial systems based on securities markets depends upon the extent to which security prices on the secondary market reflect the risk and return of alternative securities. In a well-functioning market, more risky securities should command lower prices – firms which seek to invest in more risky projects should suffer a higher cost of capital as compared with firms that embark upon less risky projects.

A key difference between OTC transactions and exchange transactions lies in the fact that trades on exchanges takes place under anonymity. This encourages a focus of information processing upon market prices. In contrast, OTC transactions take place between known counter-parties. Political and personal motives play a larger role with OTC contracting

This distinction – between transactions conducted OTC or through a securities market – is of central importance in understanding the different problems of different components of the financial system. In this article, we will focus upon the ingredients which engender effective information processing by securities markets.

II
Information Processing by Securities Markets

Information processing on securities markets is done by a class of economic agents called 'speculators'. Speculators form assessments of the fair value of a security, based on information processing about risk and return in the future. When a speculator feels that the market price of a security is low as compared with his assessment of the fair value, he buys the security, and vice versa.

The critical feature which fosters efficient information processing in speculative markets is incentive compatibility. A speculator works for himself, he directly earns profits if his information processing is accurate and he directly suffers losses if he undertakes trades based on poor information processing. This is in sharp contrast with the problems faced by banks and financial institutions in motivating their employees. In addition, as Milton Friedman observed many years ago [Friedman 1966], there is an innate process of selection through which speculators who do poor information processing tend to accumulate losses and exit from speculative activities.

It is possible to have corporate forms of organisation in speculation, such as mutual funds or FIIs which do active fund management. These would face the same problems faced by banks in terms of motivating employees in information processing. In India, around 90 per cent of the trading volume on the equity market comes from individuals. Hence, the bulk of the speculative activities on India's equity market are based on well-functioning incentive structures for successful information gathering and forecasting.

When a speculator buys a security trading at below its fair value, this action tends to restore its price closer to the fair value, and vice versa. In this fashion, the activities of speculators play an equilibrating role, pushing security prices towards levels which reflect a complete assessment of future risk and return.[1] The prices produced by modern securities markets are a public good; they can be observed at zero cost in newspapers or on the Internet.

Information flows into securities markets tend to be rich and diverse, owing to the broad-based participation in markets. This is in contrast with the restricted information flows that characterise OTC interactions. In the deeply interlinked production processes of the modern economy, a bewildering array of apparently unrelated information has a bearing upon the future risk and return from a security. Speculative markets give incentives to a wide variety of agents in the economy to obtain these pieces of information, and pool them into the publicly observed price. Company insiders, and the individuals outside the firm who directly interact with it, are often a valuable source of information when they choose to become speculators: they command a 'technology' for obtaining information and interpreting it at a low cost.

In summary, the modern securities markets can be viewed as an information processing device where 'workers' who obtain information and successfully process it are rewarded with speculative profits. The self-interest of myriad individual speculators in the economy is harnessed to obtain information gathering and analysis. This structure avoids the three problems listed in Section I which afflict information processing with OTC transactions.[2]

In recent decades, the term 'market efficiency' [Samuelson 1965, Fama 1970, Fama 1991] has been applied to describe the state where market prices accurately reflect forecasts of future risk and return associated with alternative securities.

III
Market Efficiency and Transactions Costs

If speculators are to gather and process information in order to obtain forecasts, their knowledge and analytical capabilities are obviously important. If we treat these capabilities as being fixed, then from the perspective of public policy, what institutional arrangements would maximise the quality of information gathering and information processing by speculators?

(1) Legal requirements for copious public information disclosure, and penalties for false information disclosure, would improve the information set available to speculators, and

(2) Institutions in the securities markets which impose the lowest possible transactions costs upon speculators would improve market efficiency.

The second objective – market institutions which minimise transactions costs – is a central idea in the normative economics of financial markets. Let λ denote transactions costs. A speculator who buys a security when the price is p_1 ends up spending a little more: $p_1(1+\lambda)$. Suppose he sells the security when the price is at p_2; including transactions costs he realises only $p_2(1-\lambda)$. In this sequence of transactions, termed 'a round trip', the transactions costs add up to $\lambda(p_1+p_2)$. On average, we think that p_1 and p_2 are close to each other, so the round trip costs are often approximated by $2\lambda p$.

A first, direct, consequence of transactions costs is that small mispricings (i e, deviations between market price and 'fair value') do not generate speculative corrections. If a speculator feels that a security is worth p and it is trading at p_t, no trade takes place if $|p_t - p| < 2\lambda p_1$. Hence, the speculative process cannot correct pricing errors inside the band $p_t + \lambda p_t$. Thus every level of transactions costs is associated with a degree of noise in prices. This noise has further ramifications which could seriously hurt market efficiency [DeLong, Shleifer, Summers and Waldmann 1990, Black 1986].

Suppose $|p_t - \bar{p}| > 2\lambda p_t$, and speculators do embark upon profitable trades. In this case, the round trip costs ($2\lambda| p_t$) diminish the profitability of speculative activities, and serve to diminish market efficiency. Speculators would expend smaller resources on obtaining and processing information in a world with a high λ.

Speculators are not the only users of the transactional services of securities markets. Trades which are not motivated by the objective of obtaining speculative profits are called *information-less trades*. Information-less users need to convert funds into securities or securities into funds for reasons external to market prices. A common example of information-less users in a market is the importers and exporters who trade on the currency market as a side consequence of their core activities; most orders placed by them are not attempts at obtaining speculative profits.

For information-less users, the equity and debt markets make it possible to participate in long-term projects while retaining the option of asset liquidation. This yields greater flexibility as compared with the debt contracts used in traditional financial institutions, which are held until maturity. This role of financial markets in providing liquidity has been known ever since John R Hicks. A modern extension of this argument is the idea of

the *liquidity premium*, whereby investors require a higher rate of return (at equilibrium) when transactions involve large costs [Amihud and Mendelson 1986].

Through these considerations, market liquidity also assists other economic agents; however these aspects are not as important as information processing by speculators, resource allocation, and the problem of maximising the economic growth obtained from a given supply of savings.

IV
Transactions Costs and Market Institutions

The above discussion focuses our attention upon low transactions costs as a central input towards obtaining market efficiency. In modern parlance, a 'liquid market' is one where transactions costs are low.

What determines transactions costs? At a basic level, *market size* obviously matters. If there are only a few buyer and sellers, then search costs will be high and transacting will prove to be costly. Large economies have an intrinsic advantage – it is relatively easy for the US government securities market to obtain high liquidity given the trillions of dollars of debt issued by the US government. Within India, smaller securities face greater hurdles in obtaining liquidity as compared with large securities. It is intrinsically easy to obtain a liquid market for the dollar-rupee (where importers and exporters assuredly generate around $ 80 billion in trading volume a year), and it is intrinsically hard to obtain a liquid market for a Rs 1 billion corporate bond issue.

From the viewpoint of public policy and institutional design, the size of securities cannot be altered. What policy can aim to do is obtaining the best possible liquidity for whatever securities exist. In this enterprise, myriad details of market design [Shah 1998b) assume importance. Market mechanisms influence transactions costs, and there is a rich interplay between problems of public policy, market mechanisms and transactions costs. When we translate the abstract problem of 'institutional development in the financial sector' into ground realities, one of the most important issues is the tangible problem of evolving market mechanisms which generate the lowest possible transactions costs.

Let us turn to the operations of a securities exchange, and analyse the multi-faceted hurdles faced by a user of the liquidity services of the exchange. The steps involved may be summarised as follows:

(1) Exchanges are generally inaccessible to users, except through intermediaries called 'brokers'. The user approaches a broker, conveys his requirements, and a trade could take place. Costs faced here include innate liquidity costs of the market and intermediation fees.

(2) The next step is called 'clearing', where the exchange assesses the net positions of all brokerage firms, requires exchange of funds (from buyers) for securities (from sellers), and handles defaulting brokerage firms (if any). If clearing works correctly, buyers who have paid money get securities, and sellers who have supplied securities get funds. When clearing fails to work well, it introduces risks for users of the market.

(3) The final step is called 'settlement', where new holders of securities try to actually transfer the title into their own names. When settlement processes fail to work well, they introduce costs for users of the market.

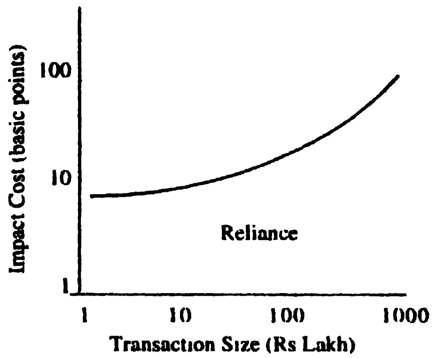
As we go through these steps of trading, clearing and settlement, users suffer numerous costs. Shah and Thomas (1998 (forthcoming)) offer a twelve-fold qualitative enumeration of these costs, with some insight into how alternative market designs impact upon them.

Denial of access. The first hurdle that users face is an explicit or implicit denial of access to market liquidity. This can take place owing to basic market structure. Inter-bank markets are notoriously inaccessible to non-bank users, who have to pay intermediation costs associated with a small club of banks who have market access. Another problem which leads to denial of access is primitive technology. In India's equity market, prior to the use of satellite-based communications, users outside Bombay effectively faced enormously higher transactions costs and were all but denied access to the market.

Market down-time. This cost occurs when a user wants to access liquidity services but is unable to do so because the market is closed (either because of holidays, a strike by exchange staff, a payments crisis, a technical breakdown, etc). A market which is closed is equivalent to a completely illiquid market. NSE's recent experience with unreliable satellites has generated massive transactions costs for many market participants.

Market impact cost. Every organised financial market has distinct prices for buying and selling small (predetermined) quantities, called 'ask' and 'bid' prices. For example, a glance at NSE today reveals that shares of Reliance are trading at 114.35/114.4. The difference between these is called the 'bid-ask spread'. These quotes pertain to a quantity of 50 shares. They mean that a buyer of 50 shares pays Rs 114.4 and a seller gets Rs 114.35. Larger transactions would, of course, show wider spreads.

FIGURE: LIQUIDITY SUPPLY SCHEDULE – ONE EXAMPLE



It is common to interpret (bid+ask)/2 as an 'ideal' price. In this case, it is Rs 114.375. Compared with the ideal price, a buyer of 50 shares pays a premium of Rs 0.025. This is 0.022 per cent above the ideal price. Then we say 'the market impact cost in buying 50 shares of Reliance is 0.022 per cent'. Market impact cost obviously rises for larger transactions, and can differ between buying and selling. Figure shows one example of market impact cost at all transactions sizes.

From an economic perspective, the bid-ask spread reflects the innate economic cost of liquidity services of the market. Once the basic structures of trading-clearing-settlement are well in place, market impact cost is the most important component of transactions costs. This is particularly important for large transactions.

Market inefficiencies. Users can be subjected to the risk of buying or selling shares at prices which are away from the true value. Specifically, when market manipulation is present, the typical information-less user loses money (on average) in connection with his transactions; these losses are best treated as transaction costs.

When a regulatory agency effectively enforces laws proscribing market manipulation, it thus serves to reduce these costs.

Unreliable order processing by broker. These are the costs introduced when brokers do not reliably execute orders given to them. Traditionally, on India's equity market, intermediaries attached a low priority to small investors, and gave

them unreliable services, driving up the transactions costs faced by small investors.

Reliable order processing is generally a question of the degree of automation of trading and associated support systems in brokerage firms. The degree of competition in the brokerage industry is also important in giving incentives to intermediaries to improve systems and be able to cope with a wide variety of users. Eliminating entry barriers into intermediation would generally improve the reliability of order processing.

Fees to intermediaries. We will distinguish between two components of the costs of intermediation: the fees directly charged which the user observes, and the less visible costs which users suffer in the form of prices which are different from the best prices available on the market.

Intermediation costs are strongly a function of entry barriers in intermediation. With free entry, intermediation costs drop to levels consistent with zero economic profit. However, entry barriers prevent this outcome on most financial markets.

The 'less visible costs' are closely related to the way in which the market is organised. The ideal market structure is one characterised by *transparency* and *price-time priority*. Transparency refers to the ability of a user to monitor the best buy and sell prices on the market at all times, and verify the price claimed by the intermediary. Price-time priority is a property of markets where every order is assuredly matched against the best price available in the country, and if two orders exist at the same price then the order which came first is given precedence.

India's equity market before 1994 suffered from these problems – entry barriers into intermediation, non-transparency and a lack of price-time priority and hence featured high costs of intermediation. India's debt and currency markets *today* suffer from these three problems also.

Counterparty risk. Most financial markets in existence have significant delays between the time the trade takes place and the time that the trade is completely settled. In this intervening period, the buyer and the seller are exposed to the credit risk of each other. If one leg defaults, the other experiences losses. This is called 'counterparty risk'. India's equity market has a long tradition of payments crises which have often halted the market.

The modern approach to coping with counterparty risk is the idea of 'novation', where a new credit enhancement institution called the 'clearing corporation', interposes itself into every transaction, buying from one leg and selling to the other. Even if one leg defaults, the clearing corporation fulfills its obligations to the other leg. Through this, the clearing corporation eliminates the risk to each side of bankruptcy of the other.

India's debt and currency markets are effectively restricted to a small club of banks, and hence feature low counterparty risk. However, this homogeneous club would require risk premia in order to trade with economic agents who are not club members. This serves as an entry barrier in intermediation. Entry into these markets would not be possible without a clearing corporation.

Initial margin. The credit enhancement of a clearing corporation is not achieved at zero cost; it requires that both sides pay collateral, called 'initial margin', to the clearing corporation. The cost of capital on this initial margin is a part of the cost of liquidity services that they face.

From a policy perspective, the initial margin charged by a clearing corporation should be the *minimum* level at which adequate safety can be obtained. Mistakes in either direction are common. Margin levels are either too low – which makes the clearing corporation vulnerable – or too high – which imposes excessive transactions costs upon users.

Back office costs. When users are forced to expend labour and capital into the processing of funds and securities after the trade, these 'back office costs' are a component of the transactions costs imposed by the market. Back office costs have traditionally been very high in India's equity market, owing to the use of physical share certificates, but the advent of the depository has generated dramatic reductions. Back office costs are particularly high in India's debt market through the lack of netting and a clearing corporation.

Resolving bad certificates. When markets suffer from stolen or fake certificates, this generates costs for the user. On India's equity market, this has led to large-scale criminal activities, with underworld elements involved in counterfeiting and theft of share certificates.

Once electronic settlement is done, at the depository, the probability of encountering bad paper drops to zero.

Delays in payments. When users are forced to pay in funds early, and receive funds late, they lose the time value of money. These delays derive from India's slow payments system, and from administrative inefficiencies.

Transaction taxes. Transactions taxes serve to reduce market liquidity (i e, raise transactions costs). There are three forms of transaction taxes in India today: stamp duty, the service tax on brokerage, and the SEBI transaction fee. Of these, stamp duty dominates. Stamp duty has been abolished for trades settled through the depository. It is a major hurdle preventing a liquid debt market. It is particularly onerous on the real estate market.

V
Political Economy of Institutional Change

As the preceding discussion implies, transactions costs are greatly influenced by the design of market mechanisms. Radical changes of market mechanisms are often the best way to produce dramatic reductions in transactions costs. However, such reforms have traditionally faced opposition from individuals who possess skills in *existing* market mechanisms. This is partly owing to the common problem that institutional change obsoletes existing human capital and necessitates fresh investments in obtaining skills. In addition, the resistance of market participants to institutional change is most pronounced when a new form of market organisation hurts revenues of intermediaries – e g, through improved market transparency or through reduced entry barriers into intermediation.

This gives us a paradoxical situation where many individuals who have excellent knowledge of existing market mechanisms (and their flaws) generally advocate conservatism in policy debates. Through the 1990s, market intermediaries and associations of intermediaries in India have generally advocated incremental change or no change, to existing market institutions. This problem is seen with stock brokers, in the context of the functioning of stock markets, and banks, on issues of new market mechanisms for the currency and debt markets.

This conservatism of market participants is not peculiar to India; it is observed in every country. The most important new idea in market organisation of the last two decades is computerised order matching, which is also called 'the open electronic limit order book market' [Black 1971, Glosten 1994]. This is a form of market organisation which has transparency and anonymity, both of which are inimical to market intermediaries who derive rents from non-transparent markets and cartel formation.

Electronic order-matching first appeared in small markets, like Toronto

and Mexico, or new markets, like NSE. These successes paved the way for adoption in larger markets, like Paris, Tokyo and London [Domowitz 1990, Melamed and Tamarkin 1996]. In November 1997, the London Stock Exchange commenced trading through order-matching, and Indian readers of *The Financial Times* witnessed a replay of the debates which took place in India's equity market in 1993 and 1994. In each situation, the introduction of computerised order-matching has encountered strong political opposition from existing intermediaries who foresee reduced revenues when market transparency improves.

VI
Institutional Change on India's Equity Market

The equity market was high on the reforms agenda after the scam of 1992.

Problems as of 1992

The problems of the equity market, at the time, may be summarised as follows:

(1) As of 1992, the Bombay Stock Exchange (BSE) was a monopoly. It was an association of brokers, and imposed entry barriers, which led to elevated costs of intermediation. Membership was limited to individuals; limited liability firms could not become brokerage firms.

(2) Trading took place by 'open outcry' on the trading floor, which was inaccessible to users. It was routine for brokers to charge the investor a price that was different from that actually transacted at. In fact, the normal market practice involved brokers charging users one single consolidated price, instead of unbundling the trade price and the brokerage fee.

(3) As with all trading floors, there was no price-time priority, so users of the market were not assured that a trade was executed at the best possible price.

(4) A variety of manipulative practices abounded, so that external users of a market often found themselves at the losing end of price movements. The BSE is run by brokers, which limits the quality of enforcement which can be undertaken against errant brokers.

(5) Floor-based trading, the inefficiencies in clearing and settlement (described ahead), entry barriers into brokerage, and the low standards of technology and organisational complexity that accompanied the ban upon corporate membership of the BSE led to an environment where order execution was unreliable and costly. It was typical for below 50 per cent of orders to obtain execution on a given day.

(6) Retail investors, and particularly users of the market outside Bombay, accessed market liquidity through a chain of intermediaries called 'sub-brokers'. Each sub-broker in the chain introduced a mark-up in the price, in the absence of the unbundling of professional fees from the trade price. It was not uncommon for investors in small towns to face four intermediaries before their order reached the BSE floor, and to face mark-ups in excess of 10 per cent as compared with the actual trade price.

(7) The market used 'futures-style settlement' with fortnightly settlement. This means that trading was supposed to take place for a fortnight until a pre-determined 'expiration date'. Open positions on the expiration date only would go into actual settlement, where funds and securities were exchanged. In practice, there was little discipline on ensuring a reliable fortnightly settlement cycle.

(8) A peculiar market practice called *badla* allowed brokers to carry positions across settlement periods. In other words, even open positions at the end of the fortnight did not always have to be settled.

(9) The efficiencies of the exchange clearinghouse only applied for the largest 100 stocks. For other stocks, clearing and settlement were done bilaterally, which introduced further inefficiencies and costs.

(10) The use of futures-style trading for a fortnight (or more), coupled with *badla*, is fraught with counterparty risk. Normally, collateral (margin) requirements are used to ensure capital adequacy, and reduce the fragility of the clearing system. Primitive notions of margins existed at the BSE on paper, but they were not enforced. A critical feature of the modern approach to clearing is 'novation' at a clearing corporation; the BSE has neither a clearing corporation nor novation. The BSE clearinghouse functioned on a best-efforts basis – if shares or funds appeared at one end, they would be delivered to the other; the clearinghouse itself took no interest in measuring and containing counterparty risk.

Small-scale problems of partial or delayed payments took place on every settlement, and major crises, which required closing down the exchange while a compromise was worked out, took place once every two to three years.

A recent and prominent example was seen in April 1995 in the context of shares of the firm 'M S Shoes', where a default involving a total exposure of Rs 180 million, and losses of around one-fifth of this, led to a payments crisis on the BSE which halted the functioning of the exchange for three days.

(11) The final leg of the trade was physical settlement, where share certificates were printed on paper. This was intrinsically vulnerable to theft, counterfeiting, inaccurate signature verification, administrative inefficiencies, and a variety of other malpractice. Involuntary and deliberate delays in settlement could take place both at the BSE and at the firm. Many firms used the power of delaying settlement as a tool to support manipulation of their own stock. The problems were somewhat simpler for investors in Bombay, who could physically visit the BSE broker, the BSE clearinghouse, or the company's registrar, and accelerate transfer. For investors outside Bombay, who lacked this recourse and were crippled by the exorbitantly expensive telephone system, delays of six months between purchasing a stock and the transfer of legal title were common. If stock splits, rights issues, or dividend pay-outs took place during this period, it was common for the purchaser to not obtain the benefits

These problems led to an extremely poorly functioning equity market. From late 1993 onwards, the Indian State embarked on a radical reforms programme which completely transformed market institutions [Shah and Thomas 1997]. This programme consisted of creating four new securities market institutions: the Securities and Exchanges Board of India (SEBI), the National Stock Exchange (NSE), the National Securities Clearing Corporation (NSCC) and the National Securities Depository (NSDL).[3]

SEBI

The Securities and Exchanges Board of India (SEBI) was formed in 1988. It has gradually adopted many important roles in the area of policy formulation, regulation, enforcement and market development. This is in contrast with conditions prior to SEBI, where exchanges underwent little scrutiny or enforcement.

Today, SEBI vets every element of market design in India's securities markets, it attempts enforcement against problems such as market manipulation and payments crises, and performs oversight of market intermediaries.

In late 1993, SEBI banned *badla*. This was a major milestone in two respects – this marked the commencement of a major role for SEBI, and it curtailed the market manipulation and systemic risk that accompanied *badla*. However, these reforms

were reversed in 1995 and late 1997 through efforts by SEBI to resuscitate *badla*.

NSE

NSE was a new exchange owned by IDBI, UTI and other public sector institutions. NSE is a securities exchange which marks a radical break with the past. The regime in which trading on NSE operates is characterised by four key innovations:

(1) The physical floor was replaced by anonymous, computerised order-matching with strict price-time priority.

(2) The limitations of being in Bombay, and the limitations of India's public telecom network, were avoided by using satellite communications. Today, NSE is a network of 2,000 satellite terminals at locations all over India. On a typical day, 3,500 traders login to the trading computer over this network. This is larger than the capacity of the largest trading floors in the world.

(3) The conflicts of interest, and lack of focus, associated with exchanges run by brokers were eliminated using a new form of exchange organisation: NSE is a limited liability company, and brokers are franchisees. Brokers do not own NSE, hence NSE's staff is free of pressures from brokers and is better able to perform regulatory and enforcement functions.

(4) Traditional practices, of unreliable fortnightly settlement cycle with the escape clause of *badla* were replaced by a strict weekly settlement cycle without *badla*.

Equity trading at NSE commenced in November 1994. The BSE responded rapidly by moving to similar technology in March 1995. The improvements that accompanied this regime – shift may be summarised as follows:

Transparency. Users could look at a price on a computer screen before placing an order.

Anonymity. Electronic trading is completely transparent about prices and quantities, and completely opaque about identities. The traditional importance of cartels and market manipulation on India's equity market greatly diminished owing to the completely anonymous trading environments.

Competition in the brokerage industry. The rise of NSE led to the entry of 1,000 new brokerage firms. This eliminated the profits that had been sustained at the BSE by restricting entry into the brokerage industry. This led to a sharp reduction in transactions costs through lower brokerage fees.

Operational efficiency. Automation eliminated the vagaries of manual trading.

Gains outside Bombay. Users outside Bombay, who faced many intermediaries on their journey to the BSE floor, benefited even more than users in Bombay. NSE's satellite-based trading gave equal access to the trading floor from all locations in India, and was a major impetus to financial sector development in cities outside Bombay.

NSCC

On the BSE floor, where trading lacked anonymity, there was a degree of control over counterparty risk that traders on the floor could exercise. If *A* knew that *B* was near bankruptcy, he could choose not to trade against *B* on the floor.

Anonymous trading eliminates cartels and greatly limits market manipulation; however it also eliminates this limited control over counterparty risk that economic agents on the trading floor possess. When anonymous trading began at NSE, it generated an extreme version of counterparty risk.

NSE found a modern solution to this problem: a clearing corporation which does 'novation'. The National Securities Clearing Corporation (NSCC) becomes the legal counterparty to the net obligations of each brokerage firm. If any firm goes bankrupt, NSCC lives up to its obligations to the other side. This eliminates counterparty risk and the possibility of payments crises.

The clearing corporation effectively supplies credit guarantees to all brokerage firms. It needs to ensure that its integrity is not violated when one or more brokerage firms fail. For this, clearing corporations need to evolve a sophisticated 'risk contanment' framework, involving collateral and intra-day monitoring. NSCC has a flawless record of reliable settlement schedules from inception, i e, from early 1996 onwards. It marks an important milestone in the institutional development of India's financial system.

NSDL

The final leg of a transaction is where the title on a security is changed from the seller to the buyer. Procedures in India, which used share certificates printed on paper, were fraught with operational costs and risk. Many criminal activities were based on the theft or counterfeiting of share certificates. In one episode, the problems in settlement on the equity market had macro-economic consequences: in late 1993, FII inflows into India were significantly hampered by the inability of certificate-processing systems in India to cope with the inflows of funds.

In November 1996, the National Securities Depository Ltd (NSDL) came into being. The depository maintains a computer record of ownership of securities, and dispenses with physical share certificates. This eliminates the potential for crime, and sharply cuts down the operational costs associated with physical share certificates. In 1997 and 1998, SEBI strongly supported the adoption of the depository by making it mandatory for institutional investors to settle through the depository for a stated set of stocks; this set has enlarged over time. As at the time of writing, two years after NSDL commenced operations, 52 per cent of the settlements taking place on NSE use NSDL. For the most important stocks in the country (members of the NSE-50 index), over 85 per cent of the settlements taking place on NSE go through NSDL.

Hence, the equity market has completed more than half of the problem of migrating to 'dematerialised' (or 'demat') settlement. It is likely that the complete transition, to an environment where *all* settlements are done electronically, will be accomplished by late 1999.

IMPACT OF REFORMS

India's equity market has been transformed owing to the reforms of 1994-98. These reforms have transformed market practices, sharply lowered transactions costs, and improved market efficiency. In no other part of India's financial sector has such a radical reforms agenda been executed, in such a short time.

It is interesting to observe that the direction adopted on the equity market in India was *not one that would follow from a mechanical adoption of market practice in OECD countries*. This is in contrast with commonly held positions in India, particularly on the debt and currency markets. The equity market in the US, for example, relies on floor-based trading (as opposed to electronic trading used in India). It relies on a market controlled by a closed club of intermediaries (as opposed to free entry into intermediation in India, with the exchange being outside the control of intermediaries). Similarly, many key ideas and techniques used in NSCC (value at risk) and NSDL (dematerialisation) are not found in securities market institutions of many OECD countries, where market designs came about many decades ago, prior to modern financial economics and computer technology.

Institutional development lies at the essence of these reforms, and along with a host of new market practices, four new institutions have arisen over this period: SEBI, NSE, NSCC and NSDL. Three of these – NSE, the clearing corporation and

the depository – were born in a remarkable two-year period from November 1994 to November 1996.

We can summarise these changes in two ways. The first consists of asking how elements of market design have changed. This is shown in Table 1. Improved ideas in market design should generate lower transactions costs. This is shown at two levels – Table 2 uses the qualitative classification used in Section IV above, and Table 3 tries to estimate the transactions costs, as per cent of price, faced by retail investors.

We see dramatic gains as compared to the situation as of 1994. For users of physical paper, transactions costs have halved; for those who have started using NSDL, transactions costs have come down to one-tenth of previous levels. For users of NSDL, transactions costs on India's equity market are now comparable to those seen on the best markets overseas. This is a remarkable accomplishment, especially considering that these reforms began as recently as 1994; within the intervening four years, the introduction of NSE, NSCC and NSDL has dropped transactions costs by a factor of ten, to levels comparable with the best practices observed internationally. The BSE has harnessed similar gains through the introduction of electronic trading and connectivity to NSDL; however BSE continues to suffer from counterparty risk owing to the lack of novation at a clearing corporation, and poor design and enforcement of the risk containment system.

If progress has been made on the issues of Section III – i e, lowering transactions costs – then have these had an impact on the issues of Section II, i e, the ability of securities markets to process information, and to form securities prices which accurately reflect forecasts of future risk and return associated with a security?

It is easiest to obtain evidence about these *changes* upon the BSE, since data from the pre-reforms period is also observed there [Shah and Thomas 1996]. Gains in liquidity do seem to have gone along with gains in market efficiency. In the post-reforms period, the time-series of stock returns exhibits statistical properties which are more consonant with market efficiency as compared with the pre-reforms period. This picture – of improvement in market efficiency at BSE – understates the gains obtained in market efficiency in India, since the major market in the country is now NSE, while these comparisons have been done against the post-reforms BSE.

Improvements in the securities markets, along with reforms on the primary market and capital account convertibility for foreign investors, have significantly altered the capital structure choices of Indian firms. In 1993-94 and 1994-95, firms significantly reduced their leverage through primary market issues of equity. The debt-equity ratio of the corporate sector as a whole dropped from 2.04 in 1991-92 to 1.3 in 1994-95.

Finally, Shah (1998a) offers some evidence about the information processing by the equity market. The P/E ratio (market capitalisation upon net profit) is a valuation measure which reveals expectations of the stock market. Firms which are awarded high P/E ratios by the market should be firms which have low risk and high expected growth. Table 4 shows the extent to which portfolios formed by sorting on P/E prove to have differential net profit growth *in the future*. These results suggest that information processing was poor in the early years through a combination of (a) weak institutions, (b) the scam of 1992, and (c) the policy surprises associated with the liberalisation of the early 1990s. In recent years, the 'forecast accuracy' of the market's P/E has improved considerably: this partly reflects a more stable policy environment and institutional development on the equity market. These results also show that P/E ratios forecast net profit growth as much as five years in the future.

VII
Institutional Change on India's Debt Market

Problems as of 1992

The problems of the debt market, as of 1992, may be summarised as follows:
(1) In 1992, debt trading took place without an exchange in the picture. Trades were bilaterally struck between known counterparties without anonymity. This form of trading suffered from the problems of OTC contracting. Personal and political influences impacted upon trade prices; each leg of the transaction was exposed to the credit risk of the other; there was no price-time priority to ensure that each trade took place at the best price in the country. Dealer markets suffer from a fragmentation of orders and trades; information about trades and trading intentions is not publicly visible. There is no sense in which a marketwide best-buy and best-sell price could be publicly observed.
(2) The problem of credit risk served to narrow the market down to a "club market", a set of participants with homogeneous credit risk.

Table 2: Qualitative View of Liquidity on India's Equity Market, 1994 and 1998

An approximate depiction of India's equity market in terms of 12 components [Shah and Thomas 1998 forthcoming]. The terms used in this table are approximate They reflect both a comparison between the transactions costs seen on these markets, and a comparison of how different these transactions costs are as compared to what they could be given improved market mechanisms. The values for 1998 assume the use of the depsitory and the clearing corporation.

Component	1994	1998
Trading		
Denial of access	High	Low
Market down-time	High	Low
Fees to intermediaries	High	Low
Unreliable order processing	High	Low
Market inefficiencies	High	Low
Market impact cost	High	Moderate
Clearing		
Counterparty risk	High	0
Initial margin	0	Moderate
Settlement		
Back office costs	High	Low
Bad certificates	High	0
Delays in payment	High	Low
Transaction taxes	Moderate	0

Table 1: Elements of Market Design on India's Equity Market, 1994 and 1998
(Eight elements of market design, derived from Shah (1998b))

Feature	1994	1998
(1) Product standardisation	Adequate standardisation	Unchanged
(2) Aggregation and revelation order flow	Fragmented market through geographical distance and through phone market. Order flow unobserved	Order flow observed on nationwide exchange(s). Fragmentation across exchanges and phone market persists, to a smaller extent.
(3) Intermediaries	Broker/dealers, fraught with agency problems. Oligopolistic pricing	Brokers, with much reduced agency problems. Competitive pricing.
(4) Anonymity	Absent	Complete
(5) Counterparty risk	Present	Absent on NSE
(6) Settlement	Purely paper	Partly through depository
(7) Enforcement/prosecution	Very poor	Poor
(8) Futures trading	Absent	Unchanged

(3) The lack of anonymity made it easier to form and enforce cartels. The Indian debt market is small when compared with the size of the largest five banks and a variety of manipulative cartels operated from time to time. Dealer markets are vulnerable to problems with cartels: the dealer market intrinsically involves a small number of entities, and once a few large dealers agree to form a cartel, the public observability of their actions makes it harder for a cartel member to fink.

(4) As with the BSE of 1992, the debt market relied on dealers rather than brokers. Every trade was structured as a dealer buying or selling in a principal capacity. As with the BSE, dealers did not unbundle their intermediation fees from the transaction price. Economic agents who traded against a dealer were unable to shop around looking for a dealer with the lowest intermediation charges. Economic agents who traded through any dealer had no guarantee of obtaining the best price, owing to the absence of price-time priority.

(5) Trading took place by telephone in Bombay. Hence, the debt market was effectively restricted to Bombay. This is similar to the BSE floor, which effectively restricted market access to Bombay.

(6) Since trades took place bilaterally, trade prices were not centrally reported and observed, even *ex post*.

(7) There were serious problems with settlement of trades. The Reserve Bank tracks ownership of government securities in a database called the SGL. All trades must be reported to the RBI, which records the change in title from the seller to the buyer. SGL was maintained manually.

(8) Market participants faced the risk of an SGL request "bouncing". Suppose A sold to B and then B sold to C. When B sent the change of title to SGL, there was a risk that this request would bounce if the first trade (B buying from A) had not yet taken effect.

Hence market participants took to exchanging "bankers receipts (BRs)" which were IOUs for bonds. When B sold to C, all that C got was an IOU where B promised to deliver bonds at some later date. This would translate into actual SGL entries after the $A \rightarrow B$ trade took effect. In practice, given the freewheeling nature of the market, it was only a matter of time before IOUs were issued on IOUs, and photocopies of bonds and IOUs were used as a basis for further IOUs. Dubious forms of netting took place as practitioners tried to reduce the complexities of settling trades, and innovated in finding new ways to abuse the system.

The purchase and sale of these IOUs effectively constituted highly leveraged transactions in the absence of internal controls and risk management.

(9) The protracted delays involved in settlement, coupled with the 'open interest' in the form of outstanding IOUs, led to grave reconciliation problems in the back offices of banks. These were particularly pronounced owing to the lack of modern computerised procedures in the back offices. Many major banks, including foreign banks, did not have a clear idea of what their positions were when investigations took place after the Scam.

(10) This confusion about settlement procedures spilled over into fund movements as well. Suppose a bank 'bought bonds' from X by paying money and obtaining an IOU. Suppose X later bought back this IOU by paying money. Over this set of transactions, the bank effectively gave a loan to X. The terms of this loan could be almost anything, negotiated between X and the dealer working at the bank. The complexity of reconciliation coupled with the inefficiency of the back office made it easy for dealers to disguise soft loans to favoured counterparties, implemented in this fashion, from their superiors.

This was the mechanics of how funds from the banking system found their way into *badla* financing on the BSE; they were short-term loans that were profitable for X as long as the stock market went up. Given the extreme leverage that was possible using *badla*, fairly modest sums of money could generate a significant impact upon stock prices. In this sense, the 'stock market scam of 1992' should better be termed the 'debt and stock market scam of 1992'.

These problems were present from mid-1980s onwards. However, the increase in transaction volume in the early 1990s, and the euphoria on the stock market

TABLE 4: RANK CORRELATIONS BETWEEN P/E AND FUTURE PROFIT GROWTH AT THE LEVEL OF 20 PORTFOLIOS SORTED BY P/E

All stocks are sorted by P/E (of 31st March of the year) and 20 portfolios are formed. The P/E and future net profit growth fo each portfolio is calculated, and Spearman's rank correlation is used to measure the association.

P/E in Year	Forecasting Net Profit Growth up to Year	Spearman Rank Correlation	Z
One-year out forecasts			
1990	1990-91	0.3624	1.58
1991	1991-92	0 1248	0.54
1992	1992-93	0.4271	1.86
1993	1993-94	0.1820	0.79
1994	1994-95	0 3594	1.57
1995	1995-96	0.8211	3.58
1996	1996-97	0.7173	3 13
1997	1997-98	0.6797	2.96
Two-year out forecasts			
1990	1991-92	0.0541	0 24
1991	1992-93	0.1068	–0 47
1992	1993-94	0 3789	1 65
1993	1994-95	0.5128	2 24
1994	1995-96	0 5128	2.24
1995	1996-97	0 6677	2.91
1996	1997-98	0 7549	3 29
Five-year out forecasts			
1990	1994-95	–0 0617	–0 27
1991	1995-96	0.4932	2 15
1992	1996-97	0.4586	2 00
1993	1997-98	0.6406	2 79

TABLE 3: TRANSACTIONS COSTS ON INDIA'S EQUITY MARKET

An attempt at quantifying transactions costs faced by retail investors (i e, with small delivery-oriented transactions). It is assumed that trades are done on NSE, using the clearing corporation, which leads to an elimination of counterparty risk; however, all other exchanges in India continue to exhibit counterparty risk. Similarly, NSE is the most liquid exchange, so the market impact cost is lowest here, but trades done on other exchanges would suffer higher market impact cost. For comparison, the best values observed internationally are included.

All values are in per cent, for a one-way transaction. For example, total transactions costs of around 0 6 per cent today mean that in order to buy shares worth Rs 100, the user must spend around Rs 100.6

Component	India			Best in the World
	1994	Today		
		Physical	Demat	
Trading				
Fees to intermediaries	3.00	0.50	0.25	0.25
Market impact cost	0.75	0.25	0.25	0.20
Clearing				
Counterparty risk	Present	0.000	0.00	0 00
Settlement				
Paperwork	0.75	0.75	0.10	0.05
Bad paper risk	0.50	0.50	0.00	0.00
Stamp Duty	0.25	0.25	0.00	0.00
Total	> 5.25	2.25	0.60	0.50

following the liberalisation of 1991, were the triggers which converted these systemic problems into a crisis. Most systemic crises in the financial sector are rooted in uncontrolled leverage; the scam of 1992 can be attributed to a two-stage leverage – one stage at the inter-bank debt market (using IOUs) and another on the stock market (using badla).

Innovations in Market Design after the Scam

Three major reforms took place after the scam:

Improvements to SGL. The RBI moved to computerise the SGL and implement a form of a 'delivery versus payment' system.

Enforcement of a 'trade for trade' regime. The RBI setup a strong regulatory system which required that every trade must settle with funds and bonds; IOUs and netting were prohibited.

Trade reporting at NSE. A limited degree of transparency came about through the Wholesale Debt Market (WDM) at NSE, where roughly half the trading volume of India's debt market is reported. WDM is not a 'liquid market' where trades can be executed. Yet, it marks a step forward insofar as it produces reveals useful data about prices and traded quantities intra-day.

These reforms have served to close the windows through which the pervasive failures of clearing and settlement generated the scam of 1992. Today, SGL works much more effectively as compared with 1992. IOUs and uncontrolled leverage are completely absent. In this sense, one objective, of preventing the recurrence of the scam of 1992, has clearly been met.

However, these reforms did not address the core problem of the debt market, the reliance on distributed dealers interacting by telephone in Bombay. This problem, and the 'trade for trade' regime, which forbids all forms of netting, is a major hindrance to obtaining market liquidity.

Impact of Reforms

We can summarise the changes which took place in two ways. The first consists of asking how elements of market design have changed. This is shown in Table 5. Improved ideas in market design should generate lower transactions costs. This is shown qualitatively in Table 6 using the qualitative classification used in Section IV above.

As a consequence of the reforms, India's debt market is much less vulnerable to systemic crises. However, the reforms have failed to obtain a liquid, efficient bond market. We can easily contrast the modest changes seen in Table 5 against the major changes which took place on the equity market (Table 1). Similarly, the altered transactions costs seen on the equity market (Table 2) are in sharp contrast with the modest changes seen in Table 6.

The central question faced in policy formulation connected with the bond market, today, is about how the market design can be altered so as to obtain a liquid, efficient bond market. We return to this problem below.

VIII
Problems Faced Today, and the Agenda for Reforms

From this conceptual and historical perspective, as we look forward from late 1998, what are the most important issues in the agenda for public policy?[4]

Transition to Rolling Settlement on the Equity Market

NSE took a major step when it moved from the unreliable fortnightly settlement cycle, historically prevalent in India, to a reliable weekly settlement cycle. Today, the BSE also uses a reliable weekly settlement cycle, albeit with *badla*.

These market practices are all instances of 'futures-style settlement'. This suffers from two kinds of blemishes – the 'spot market' prices behave like futures prices, and the regulatory problems that are normally observed on futures markets show up on the cash market. A futures market requires a different regulatory framework. Indeed many of the problems that have been observed on India's equity market are problems commonly seen on futures markets, and many of the solutions adopted in recent years are inspired by futures markets.

The international standard for the spot market consists of using 'rolling settlement' instead of futures-style settlement. The group of 30 has recommended that rolling settlement should replace futures-style settlement. Every major market, other than France, uses rolling settlement on the cash market. Futures-style settlement involves netting of positions through the settlement period (which is Wednesday to Tuesday in the case of NSE) and settlement of open positions a few days later (five days in the case of NSE). Rolling settlement allows netting only within the day; all open positions at the end of the day have to settle. A few days later (five days in the case of NSE), settlement takes place. This is called T+5 rolling settlement, to convey the idea that settlement takes place five days after 'T', the date on which trading took place.

Ideally, India's cash market should be based on four principles:

(1) Electronic trading with complete anonymity,

Table 6: Qualitative View of Liquidity on India's Debt Market, 1994 and 1998

An approximate depiction of India's debt market in terms of 12 components [Shah and Thomas 1998 forthcoming]. The terms used in this table are approximate. They reflect both a comparison between the transactions costs seen on these markets, and a comparison of how different these transactions costs are as compared to what they could be given improved market mechanisms

Component	1994	1998
Trading		
Denial of access	High	High
Market down-time	Low	Low
Fees to intermediaries	High	High
Unreliable order processing	Moderate	Low
Market inefficiencies	High	High
Market impact cost	High	High
Clearing		
Counterpart risk	High	Reduced
Initial margin	0	0
Settlement		
Back office costs	High	High
Bad certificates	High	0
Delays in payment	High	Low
Transaction taxes	Moderate	Moderate

Table 5: Elements of Market Design on India's Debt Market, 1994 and 1998
(Eight Elements of Market Design, Derived from Shah (1998b))

Feature	1994	1998
(1) Product standardisation	Adequate standardisation	Unchanged
(2) Aggregation and revelation order flow	Fragmented market through geographical distance and through phone market. Order flow unobserved	Unchanged
(3) Intermediaries	Broker/dealers, fraught with agency problems.	Unchanged
(4) Anonymity	Absent	Unchanged
(5) Counterparty risk	Present	Unchanged
(6) Settlement	Purely paper	Purely through depositary
(7) Enforcement/prosecution	Poor	Improved
(8) Futures trading	Absent	Unchanged

(2) Novation at the clearing corporation,
(3) All settlement through the depository,
(4) Rolling settlement.

The first objective listed here has already been fully met. Novation at the clearing corporation is taking place on the largest market (NSE) though not at other exchanges. The process of depository adoption is half complete. The missing link, today, is rolling settlement.

How would the transition to rolling settlement be achieved? It is common to point to four elements which pave the way for rolling settlement:

- *Depository adoption.* As mentioned in Section VI, depository adoption right now is half complete if we look at the overall equity market. However, there is an important subset of stocks (members of the NSE-50 index) where over 85 per cent of settlements are taking place through NSDL. For these stocks, this first requirement has been met.
- *Loans against shares.* RBI has been increasingly liberal in terms of policies about loans against shares, so the second condition is increasingly being met.
- *Stock lending.* SEBI's stock-lending scheme has been in place for over a year, but only a handful of stock-lending transactions have taken place. Several intermediaries (including SHCIL, Deutsche Bank, Reliance Capital and NSCC) have been working towards building viable stocklending facilities. When these are in place, the third condition will be met.
- *Equity derivatives.* It is now likely that trading in index futures will commence from January 1999. When this happens, the fourth condition will be met.

The outlook in each of these areas is hence promising. It is now useful to discuss the modalities of transition to rolling settlement. SEBI should draw upon the success story of its intervention in the context of adoption of the depository to formulate a similar strategy for rolling settlement. Currently, SEBI chooses a date T for each stock when it goes into a restricted list where institutions cannot settle using physical certificates. Additionally, a requirement should be placed that six months after T, that stock should *only* be traded using rolling settlement in the country; that futures-style settlement should be disallowed from this point onwards.

A hundred stocks – the securities which make up the NSE-50 and Nifty Junior market indexes – account for over 95 per cent of the trading volume in India. It is quite practical to see an ideal regime operating for these hundred stocks by middle 1999, embodying electronic trading, with novation at the clearing corporation and rolling settlement through the depository.

New Approaches Towards Market Design on the Debt Market

Settlement Procedures

Today, RBI requires that every trade on the debt market should settle, and this settlement takes between one to five days. Existing procedures for moving funds and securities are highly cumbersome. The back office of the largest bank is unable to process more than a hundred trades a day; this is in sharp contrast with the equity market where the smallest of NSE brokers process in excess of a thousand trades a day. The essential feature which generates this difference in transactions costs is the use of netting at the clearing corporation on the equity market, as a way to dramatically simplify settlement. The trade for trade regime, by forbidding netting, yields these enhanced transactions costs.

In the context of the equity market, the discussion above focused on the migration to a spot market based on T+5 rolling settlement, with depository settlement, as a short-run objective for reforms on the equity market. In debt markets, internationally, this process has gone into its logical destination in the form of 'real-time gross settlement' (RTGS) systems. RTGS is the ideal form of a spot market, where complete settlement is attempted a few seconds after the trade is struck. RTGS requires infrastructure for real-time movement of funds and securities.

It is interesting to observe that rolling settlement involves intra-day netting while RTGS involves no netting. In this sense, RTGS can be viewed as an implementation of RBI's existing trade-for-trade regime where the time elapsed between trade and settlement is shrunk to a few seconds.

Both alternatives – either rolling settlement with intra-day netting or RTGS – could possibly yield a liquid, efficient market given modern trading procedures. Both alternatives would work much better than the existing trade-for-trade regime. RTGS makes greater demands in terms of widely accessible infrastructure for instant movement of funds and securities.

However, there is a strong sense in which either procedure would fail to solve the problems of illiquidity and market inefficiencies on the debt market if the basic problems in trading are not resolved. We now turn to these problems.

Trading Procedures

Earlier, we have seen how the core failures of the trading process seen in Section VII have not yet been addressed. The debt market would obtain major gains in liquidity and market efficiency if four key principles governed trading: (a) anonymity, (b) price-time priority, (c) nation wide market, and (d) free entry into intermediation.

Anonymity eliminates personal or political influences upon price formation; it focuses the information processing of market participants upon prices and quantities. Cartel enforcement would become essentially impossible under anonymity.

Price-time priority consists of establishing market infrastructure which ensures that every order in the country is assured the best price. This would immediately emphasise the agency function of an intermediary. When an economic agent approaches an intermediary in order to execute a trade, the execution price would be the same regardless of which intermediary is chosen. The *market* would possess liquidity, and the intermediary would merely be a way of obtaining access to this liquidity. Intermediaries would unbundle their intermediation charges, and competitive pressures would start operating upon these fees.

A single nation wide market – as opposed to a club market operating by telephone in Bombay – would harness orders from all over the country. The pooling of these orders would generate enhanced liquidity. Conversely, a nation-wide market would carry the benefits of a liquid debt market to locations all over the country. The experience of the NSE has shown that India's financial sector is not located in Bombay – prior to NSE, 85 per cent of equity trading took place in Bombay, but today only 35 per cent of NSE's trading volume originates from Bombay.[5]

Finally, free entry into intermediation would shrink intermediation costs. Free entry into intermediation blends very well with a market that works with anonymity and price-time priority; incumbent intermediaries need not know or accept a new intermediary into their club in order to trade against him on an anonymous trading screen. However, free entry into intermediation does raise concerns about credit risk, which can be addressed using novation at the clearing corporation. Similarly, an RTGS system could implicitly throw up entry barriers into intermediation if RTGS requires forms of

connectivity into infrastructure for funds transfer which only a few intermediaries have access to.

Reshaping the debt market around these four principles would imply institutional change which would be comparable with the experience of the equity market from 1994 to 1996. It is likely that these changes would yield a much more liquid and efficient market.

Exchange-Traded Derivatives on Equity and Debt

Financial derivatives are tools through which risk exposures of economic agents can be rapidly altered at minimal transactions costs [Shah 1997]. The enhanced price volatility in the liberalised economic environment, coupled with the manifest advantages of markets where risk could be transferred among economic agents in the economy, has inspired many independent initiatives aiming to create derivatives markets in the country. In the equity, currency, debt and commodity markets, a variety of progress has been made towards the creation of markets for derivatives instruments, such as futures and options [Thomas 1998].

In addition to its allocative functions, the financial system can enable welfare-improvement through the reallocation of risk. Derivatives markets are a highly effective way through which this risk transfer can be achieved.

From the perspective of market efficiency, and the ability of the financial system to process information and formulate forecasts of risk and return, derivatives play a role in two ways. Derivatives trading generally tends to reduce transactions costs on the underlying cash market. Specifically, derivatives trading is an instrument through which market impact cost in Table 3 could become smaller. In addition, access to derivatives improves the profits from speculative activities; this leads to enhanced levels of investment in the economy into information production and information processing. Internationally, the onset of derivatives trading has been accompanied by enhanced levels of market efficiency.

In this section, we describe the role of derivatives in the modern economy, outline the building blocks required to build a derivatives exchange, and discuss some policy issues about derivatives markets in India.

The Role for Derivatives

Risk owing to price volatility is pervasive in the modern market economy. Drawing upon Mason (1995), we can employ a functional classification of the three major 'technologies' which the financial system offers for the reduction of risk:

Diversification. reduces risk through combining less than perfectly correlated assets.

Insurance. refers to securities or contracts which limit risk in exchange for the payment of a premium.

Hedging. refers to offsetting a risk exposure using a financial transaction.

Financial derivatives, such as futures and options, can be used for hedging and insurance, and hence help economic agents obtain better control over the risks that they encounter.

Components of a Derivatives Exchange

A derivatives exchange is made up of four components: the definition of a traded product, a trading mechanism, a clearing facility, and settlement procedures.

(1) *Product.* Derivatives exchanges trade completely standardised products. The exchange defines the traded product, and traders have no flexibility in altering the terms. An example of such a product could be a futures contract on an index, or options on a security, or options on coffee, etc. All aspects of the traded contract would need to be specified, including the expiration date, date of making delivery, the exact specification of the grade and quantity of the goods which will be delivered, etc. India's experience in this area is described in Chauhan (1997) and Thomas (1997).

(2) *Trading.* A derivatives exchange needs a trading system. The modern consensus in the securities industry is that liquidity is maximised using the open electronic limit order book market, where trading takes place in anonymity, where individuals all across the country have equal access to the trading floor, and prices and liquidity are transparent.

(3) *Clearing.* Trading on a derivatives exchange takes place anonymously: the buyer does not know the identity of the seller, and vice versa. This would only be feasible if credit risk were eliminated. This is done through novation at the clearing corporation.

(4) *Settlement.* Derivatives can involve the exchange of funds and goods. For example, the holder of an option to buy coffee might choose to exercise the option, delivering funds and taking delivery of coffee. The derivatives exchange needs to establish smooth procedures for settlement.

Is India Ready for Derivatives?

As we approach the date when trading in exchange-traded derivatives commences, many observers are apprehensive about the potential for fraud, bankruptcy, or crises emanating from this market. Hence, the question 'Are we ready for derivatives?' is often voiced.

The main effort towards building exchange-traded derivatives in India is that of NSE [Chauhan 1998]. NSE's developmental effort towards starting derivatives trading, i e, the four elements listed above, was completed in December 1996. After this, the onset of trading has been held up by regulatory and legal problems. SEBI's L C Gupta Committee, which was constituted to draft a policy framework for exchange traded derivatives in November 1996, submitted its report in February 1998 [Gupta 1998].

Some observers have advocated caution in the introduction of equity derivatives on the grounds that these are 'highly leveraged instruments'. However, given the use of futures-style settlement on the spot market for equity, a greater extent of leverage is already present on India's spot market for equity. The danger of a payments crisis on NSE's proposed index futures market is lower than that on the spot market on either NSE or BSE, which are presently the centres of highly leveraged trading in India. It is only when India's equity market moves into rolling settlement that we will see greater leverage on the index futures market as compared with the cash market. In addition, India's cash market for equity is fraught with risk owing to the use of physical certificates, where forgery and theft is common. The index futures market will be less risky in this dimension insofar as cash settlement is used.

Another source of concern is market manipulation. Index-based derivatives are intrinsically safer than the trading on the cash market, since it is much harder for manipulators to distort the level of an index as compared with the difficulties presently observed with illiquid securities on the cash market.

In summary, it appears that the risks with respect to clearing and market manipulation that derive from trading in index derivatives are lower than the risks presently observed with futures-style settlement on the cash market.

Areas where Useful Derivatives Markets Could Come About

The treatment above has emphasised derivatives based on the equity index, for three reasons: (a) this is one area where conditions are ripe for the onset of exchange-traded derivatives in India, (b) NSE and SEBI have developed the institutional mechanisms required to make

this possible, and (c) in the near future, there is little doubt that stock index futures and options will commence trading.

In one area, that of currency risk, a large derivatives market already exists in India in the form of the dollar-rupee forward market. Here, the migration from OTC contracting to an anonymous exchange environment (in the form of a dollar-rupee *futures* market) would yield improvements in liquidity and market efficiency.

There are several other areas where exchange-traded derivatives are similarly quite feasible, though much less progress has been made in terms of establishing the institutional framework and obtaining the regulatory approvals. These include futures and options on short-dated interest rates, and on a variety of commodities such as cotton, sugar, rice and wheat. In each of these areas, the onset of derivatives trading will give economic agents tools to alter their risk exposure when desired, and generate improvements in market quality (enhanced liquidity and market efficiency) on the underlying cash market.

IX
Conclusion

The east Asian crisis has led to heightened interest in the financial sector, and in the role of the state in a better functioning financial system. This article has documented a remarkable episode, from 1993 to 1996, when state interventions had a profound impact upon market quality on India's equity market. Over this period, SEBI rose from dormancy, and three new securities market institutions were created – NSE, NSCC and NSDL. These changes have taken place over an extremely short time-period.

On the subject of the equity market, the two central questions in the reforms agenda concern the initiation and expansion of exchange-traded derivatives, and a complete transition to rolling settlement. It is possible to obtain major progress on these problems within the coming year

Going beyond the equity market, the principles of market design and the institutional arrangements which have proved successful on the equity market can be fruitfully applied in three other areas: the market for government debt, the currency market, and commodity markets. These three areas presently feature primitive market institutions, as compared with the technological and institutional sophistication now visible on the equity market. The use of anonymous, electronic exchanges, with novation at the clearing corporation, is likely to yield major gains in market efficiency in these three areas as well.

Notes

1 See Hart and Kreps (1986 for a contrary example of a class of theoretical models where speculators can be destabilising. Friedman's intuition is best visualised as a process of natural selection. In Luo (1998), an extreme model where agents do not learn from their mistakes or by observing other agents, the natural selection process alone generates (asymptotic) market efficiency. To the extent that learning does take place, we may expect a greater convergence upon efficiency.

2 This perspective upon securities markets, and the role of speculators therein, is in sharp contrast with the hostility towards speculation which has dominated public discourse in India in the last fifty years. This is partly caused by confusing terminology: the term 'speculation' is often mixed up with 'market manipulation' or 'systemic risk'. We define speculation as the activity of gathering and processing information, which leads to valuation of securities on organised markets. This need not involve market manipulation or systemic risk in a well functioning financial system.

3 SEBI was created in 1988, but it was from 1993 onwards that it found its voice. NSE was created in 1993, but equities trading at NSE commenced in November 1994. NSCC was created in April 1994 and started performing 'novation' from June 1994 onwards. NSDL was inaugurated in November 1996

4 Also see http://www igidr ac in /~ajayshah for many related issues.

5 Ever since the early 1970s, retail investors have owned shares but not government securities, and SGL does not interface with retail investors. However, once SGL is linked to NSDL, the same procedures and distribution channels used nationwide by NSDL to account for half the settlement volume on the (highly retail) equity market become accessible to the debt market

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Market Integration, Price Efficiency and Short-Run Dynamics

A Tale of Two National Stock Markets

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This paper models price dynamics in the two national stock exchanges. It is discovered that there are well-defined relations between stock prices in the long run in each of these markets. Hence market segmentation is strongly ruled out. Second, the short-run behaviour of stock prices is such that no stock price can be considered to be independent of the others. Short-run price movements are mostly random or unstable, but the impulse response function analysis suggests that the instability does not persist for long. Finally, there seems to be a marked difference in the reaction in the two markets for the same stocks in terms of the responses to firm specific and market specific shocks. This may point to differences in the types of traders in these two exchanges.

I
Introduction

SIGNIFICANT changes have been occurring in the Indian stock exchanges during the last few years. The origins of these changes can be traced to the introduction of a screen-based trading system in the National Stock Exchange (NSE) as an alternative to the open-outcry system prevalent on the Bombay Stock Exchange (BSE) in 1995. Since then the success of the NSE has been phenomenal. This can be gauged from Table 1. Between 1994-95 and 1996-97, the percentage share of the entire country's trading volume rose from 1.1 per cent to 45.6 per cent on the NSE. At the same time, the percentage share of trading volume across all other exchanges declined significantly.

The initial success of NSE set off a chain reaction. Fearing loss of trading volume, the BSE reacted by replacing its open-outcry system with a screen based trading system within one year. Since then, there has been no looking back. With NSE establishing more than 1000 VSAT terminals all across the country, small investors in remote parts can have the same access to trading opportunities as any sophisticated brokerage firm in Mumbai. Now BSE has introduced its own national network (BOLT) and the Delhi Stock Exchange (DSE) has followed suit. And more recently, the regional exchanges have created the Inter Connected Stock Exchange (ICSE) as a response to the new environment.

The underlying cause of these quantum changes is information technology. More importantly, information technology has facilitated disintermediation, thereby unleashing the forces of competition. The immediate impact of competition are (i) a fall in costs of transactions and (ii) transparency and price efficiency.

Under the open-outcry system on the BSE, traders located far away from Mumbai were at a severe disadvantage. A number of intermediaries were involved in arranging trades and transaction costs added up due to layers of intermediation. Screen-based trading systems like the one at the NSE significantly reduce the transaction costs (bid-ask spreads and brokerage commissions) incurred by investors. Many layers of intermediation are removed and buyers and sellers interact with each other directly. The expanded size of the market and the lack of direct intermediation result in lower transaction costs for investors.

While the reduced costs of intermediation is a definite benefit of the screen based trading system, it is the increase in transparency and the improvement in the price formation process that generate an increase in the level of trading activity. Under the old system in Indian stock markets, brokers could more easily manipulate prices given the complicated process of arranging a trade. This was not only a burden for investors who regularly traded, but also a major deterrent for potential investors.

The new environment of screen-based trading has also greatly enhanced the price formation process and market prices in India more closely reflect fundamental values than was the case earlier. With nationwide electronic exchanges in place, a trader sitting in Ludhiana can shop around and choose between the NSE, BSE, DSE and the regional exchange. Specialised traders (known as arbitrageurs) can take advantage of price discrepancies across these exchanges. Their activities render a more integrated nationwide market where current prices reflect the latest information available about a company. Markets where prices accurately reflect the latest information are known as price efficient. The existence of price efficient stock markets is crucial for funnelling household wealth into the most productive sectors of the economy.

In this paper we examine the structure of the Indian stock markets. We specifically study the extent of volatility and price efficiency of the two largest markets and the only national stock exchanges (Bombay Stock Exchange (BSE) and National Stock Exchange (NSE)). Conventional wisdom suggests that Indian

TABLE 1: PERCENTAGE OF TRADING VOLUME IN TOP FIVE EXCHANGES

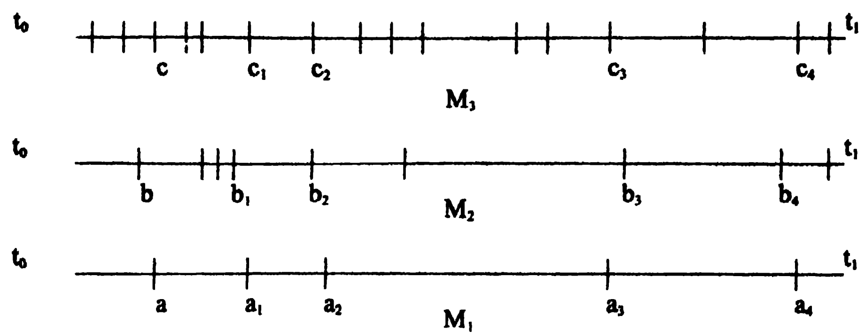
Stock Exchange	Percentage of Total Trading Volume		
	1994-95	1995-96	1996-97
NSE	1.1	30.0	45.6
BSE	41.6	22.0	19.2
Calcutta	32.5	27.3	16.4
Delhi	5.6	4.4	7.5
Ahmedabad	3.5	3.9	3.2

Source: *Indian Securities Market* by Tadeshi Endo, Vision Books

TABLE 2: LIST OF STOCKS

Stock	Market Capitalisation (Rs crore)	Industry
HLL	10355	Consumer Products
BHEL	2998	Heavy Industries
ICICI	2848	Leasing and Financing
Colgate	3563	Consumer Products
L and T	6025	Construction
ACC	3254	Cement
Tisco	7289	Heavy Industries
Telco	11031	Automobiles
RIL	9784	Man-made Fibres
SBI	11270	Leasing and Financing

Figure 1



markets are riven with speculation and not driven by any kind of market forces. On the surface this claim might seem logical. There are close to 23 markets that trade in the same stocks. Overall liquidity is extremely poor in most of these markets. We also find that prices are consistently different across these markets. However, a recent study [Jha et al 1998] has shown that prices of the same stock in these markets are well integrated. A complementary line of inquiry would examine the linkages of different stock prices in the same markets. This provides the motivation for the present paper. We choose NSE and BSE for the following reasons. (a) These two have the largest number of listings and therefore the highest market capitalisation; (b) most of the institutional investing is done in these markets; (c) 'conventional' wisdom in the investing community suggests that these may be the central markets.

It would be important to know the following (i) are the stocks in the two markets informationally linked over time? (ii) are the stocks in these markets inherently volatile? (iii) which of these stocks contribute to market stability? (iv) is there a difference betwe n these two markets in terms of the reaction of the listed stocks to (a) firm specific information and (b) marketwide information and, (v) are these markets inherently unstable?

Others have raised these issues in different context. Hasbrouck (1993) has investigated the information efficiency of markets that trade in the same securities. Andersen and Bollerslev (1997) examine the intraday periodicity of volatility in equity markets and show that most markets have cycles of volatility in response to information inflows. Harris et al (1995) have examined the stock markets in the US to test whether there is indeed a central market that provides information to the rest of the markets. However to the best of our knowledge there is no extant literature on price transmittals within a given market either in a developed economy or in the context of an emerging market.

The remainder of this paper is divided into five sections. In Section II, the process of data construction is described. In Section III, the methodology used is explained, Section IV states the results and Section V provides certain concluding remarks.

II
Data

There are close to 7000 stocks listed in BSE while this number is around 1000 in the NSE. However not all these stocks trade with any degree of frequency. In the BSE, the number of stocks that trade at least daily is 1300 while it is around 950 in NSE. For the purposes of our study, we have chosen the 10 stocks with the highest market capitalisation. This seems to have a bearing on their respective frequencies of trading. The stocks chosen are shown in Table 2. We note that they represent a range of industries.

Intraday data for the period July 1, 1996 to July 30, 1997 from these two exchanges for the abovementioned 10 stocks were collected. We however find that there is an inherent asynchronicity in data for the chosen stocks. For example, the stock SBI trades more than 2,700,000 times during the period while, the slowest is BHEL

Table 3: Size of the Data Set

Market	Stocks	Average Time Elapsed between Transactions (Seconds)		Data Points	
		Slowest Stock First	Fastest Stock First	Slowest Stock First	Fastest Stock First
NSE	HLL, BHEL, ICICI, Colgate, L and T, ACC, Tisco, Telco, RIL, SBI	46	34	48,500	41,150
BSE	HLL, BHEL, ICICI, Colgate, L and T, ACC, Tisco, Telco, RIL, SBI	51	38	33,225	27,250

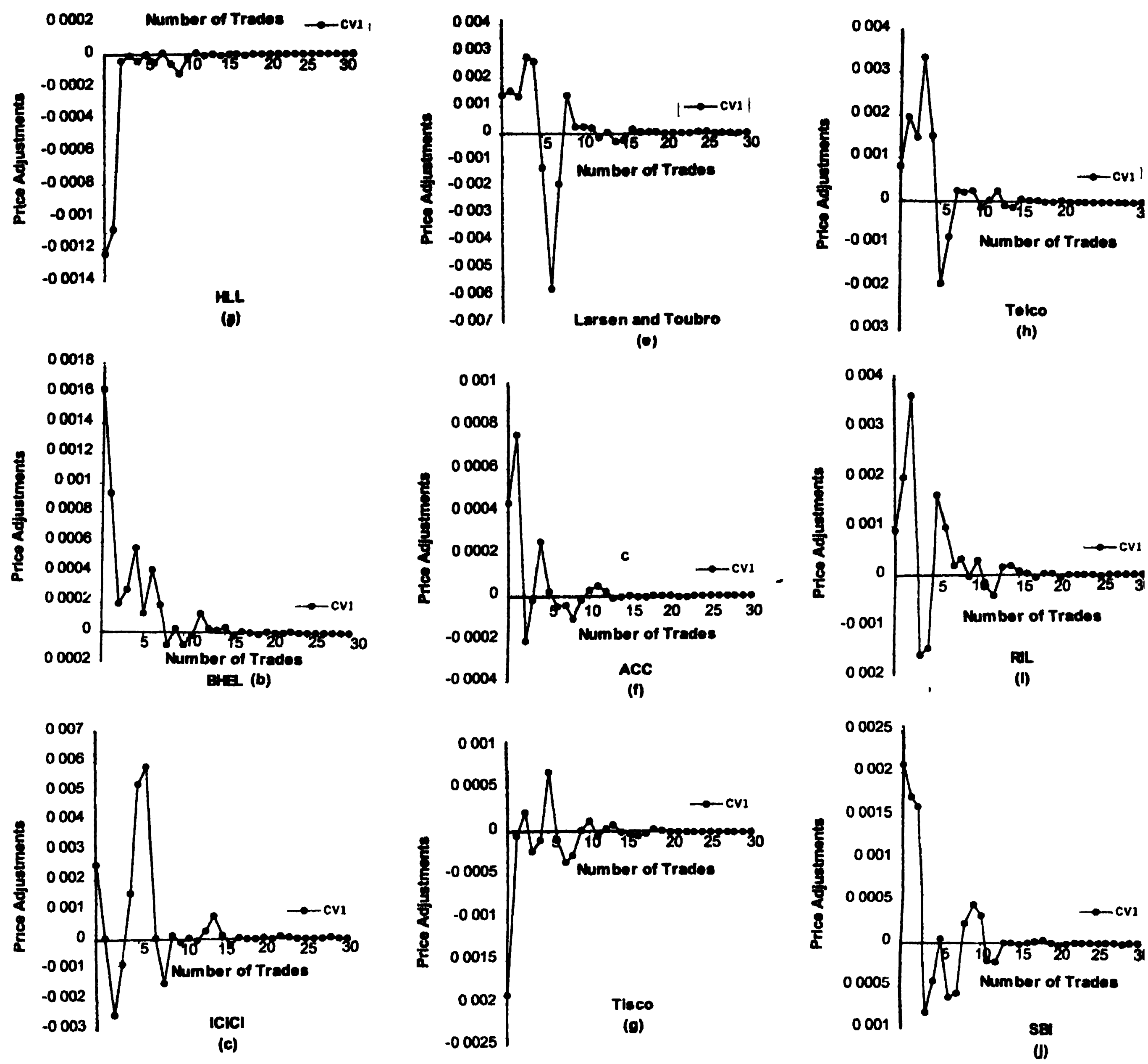
Table 4: Summary of Empirical Results

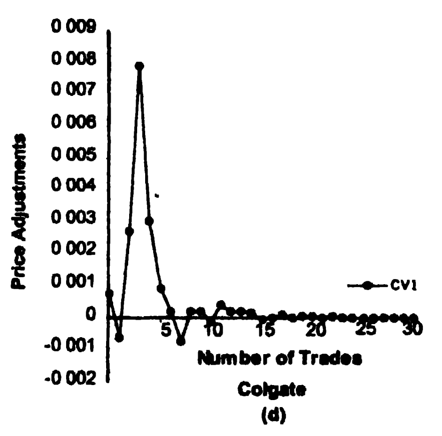
Market	Number of Cointegrating Vectors	Cointegrating Vectors
(i) Long run relationship		
NSE	2	–1.pbhel + .82789. phll + 3 5707. pcolgate – 1 4344 picici + 2.2564 plandt – 4.4331.ptelco + 1.811 pacc – 1.4120.ptisco – 11.2571.ril + 7.1110 psbi = 0
		–1.pbhel – 1.6591. phll + 9.9232. pcolgate + 2 7829 picici + 7 8571.plandt – 14.8996.ptelco + 93926 pacc + 10 3758.ptisco + 4.1195 nl – 1 7923.psbi = 0
BSE	1	–1.phll + .94137.pbhel + 1 3021.picici + 098371.pcolgate + .43593.plandt + 25727.pacc – 1.3073.ptisco + .31921.ptelco – .14137.pril + 2 1073.psbi = 0
Market	**Endogenous stocks(s)**	**Exogenous stock(s)**
(ii) Endogenity		
NSEB	BHEL, HLL, Colgate, ICICI, L and T, ACC, Tisco, SBI, Telco, RIL	None
BSE	BHEL, HLL, Colgate, ICICI, L and T, ACC, Tisco, SBI, Telco, RIL	None

Table 5: Profile of Short-Run Behaviour of Prices

Markets	Stabilising Stock(s)	Destabilising Stock(s)	Random
NSE	L and T, Tisco, RIL	Telco, SBI	ICICI, Colgate, ACC, Tisco, Telco
BSE	L and T, Tisco, RIL	Telco, SBI	ICICI, Colgate, ACC, Tisco, Telco

Figure 2 Impulse Response of Major Stocks Traded in BSE



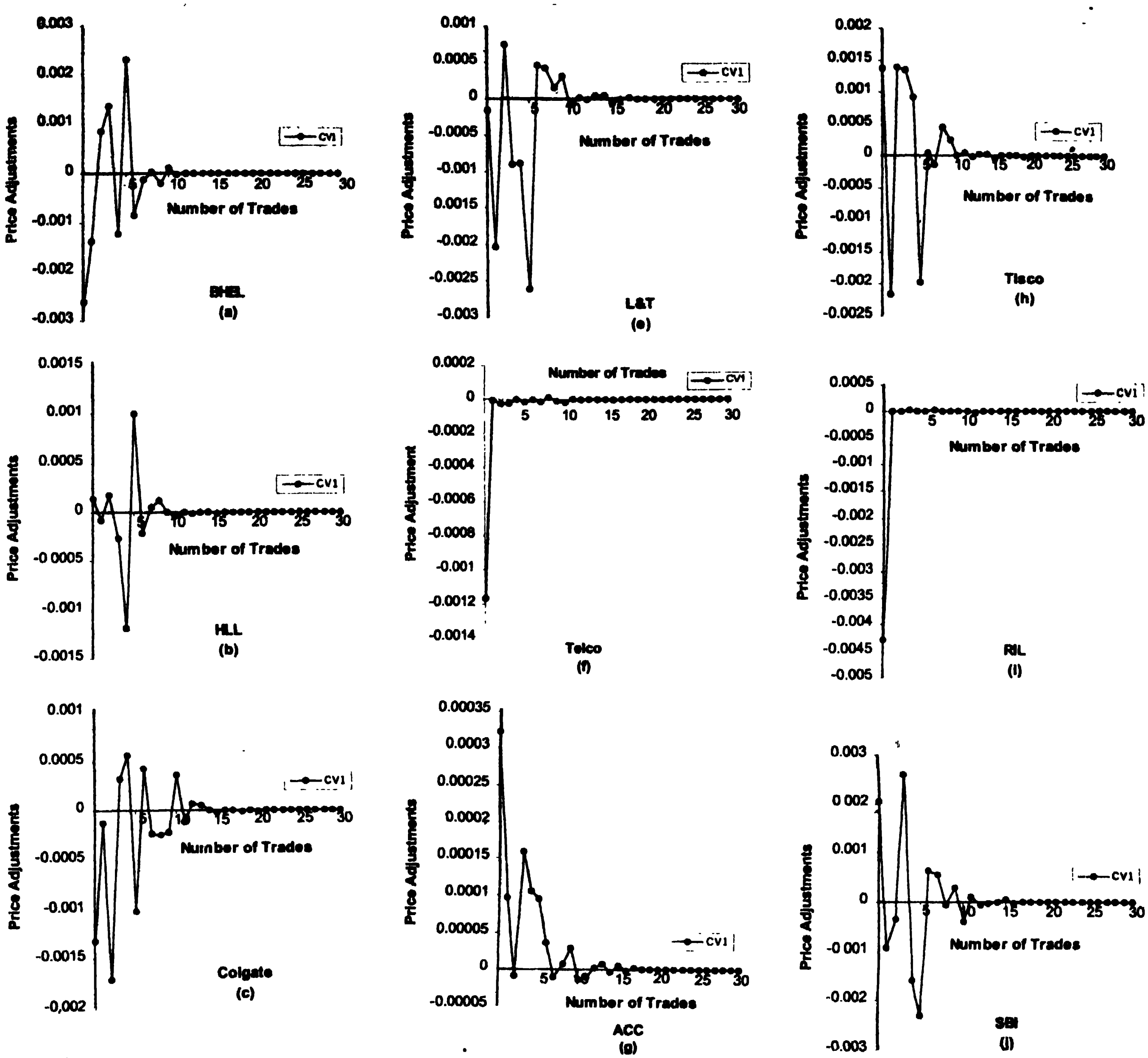


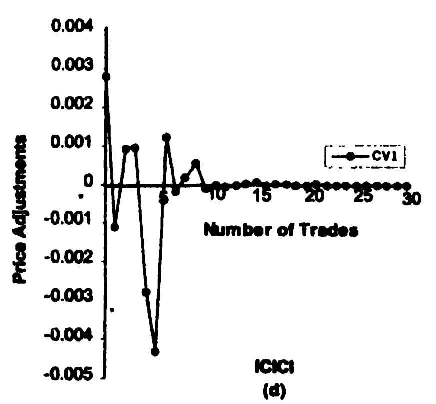
with 88,000 trades This implies that we should not compare the raw data for inferring dominance or otherwise of any given stock Usage of this data would mean that meaningless' transaction prices could be used for inferring price discovery Hence, a method based on Harris et al (1995) is used to construct matched data sets The reaction of the prices of a given stock to changes in the prices of the other stocks in the same exchange can be detected only if synchronous data is used. The procedure to construct this data set is outlined below

Consider three stocks – M_1, M_2 and M_3 – where M_1 is the slowest and M_3 is the fastest over the chosen time interval The speed of trading of a stock is an indication of the liquidity in terms of the number of times a given stock trades To construct the matched data set, once the slowest stock trades, the immediate past trade in M_2 and M_3 are chosen This is shown in Figure 1 Time in figure (1) is the clock time The first trade in M_1 is at a The closest trades in the other stocks are b, and, c Hence the first triplet is (a, b, c) We similarly construct other triplets such as (a_1, b_1, c_1), (a_2, b_2, c_2), etc

In this paper, we use a hybrid of 'replace all' and 'minspan' outlined in Harris et al

FIGURE 3: IMPULSE RESPONSE OF MAJOR STOCKS TRADED IN NSE





(1995). Under replace all, only the closest prior price of the other stocks are chosen. Under minspan the criterion is minimising the time differential between a given trade in the slowest stock and the corresponding trades in the other stocks. In a way, replace all is a subset of minspan in our case. In the hybrid version we combined the two methods of replace all and minspan. Trades could be either prior to the slowest trade or occur after it.

It is obvious that, the size of the data set will be determined by the speed of the slowest stock. A problem that might be encountered in using such a data set is the masking of the price discovery process by the bid-ask bounce of a trade across stocks. That is, a trader could trade at the bid on one stock and at the ask on the next. This type of trading could mask the price discovery process. Harris et al (1995) have raised such an issue. Following their paper, we also construct data sets by changing the order of the stocks shown in Figure 1. The data set is now governed by the fastest stock. The size of this data set is also shown in Table 3.

III
Methodology

The methodology adopted here allows us to ask the following questions: (a) Are stock prices related to each other in the long run in these two markets? (b) How does the price of a stock in a market move in the short run? Short-run price movements of a stock in a given market can be determined by its own past prices or, in the context of integrated stocks deter-

Figure 4: Reaction of Shocks Traded in BSE to Firm Specific Information (Top Five Based on Market Capitalisation)

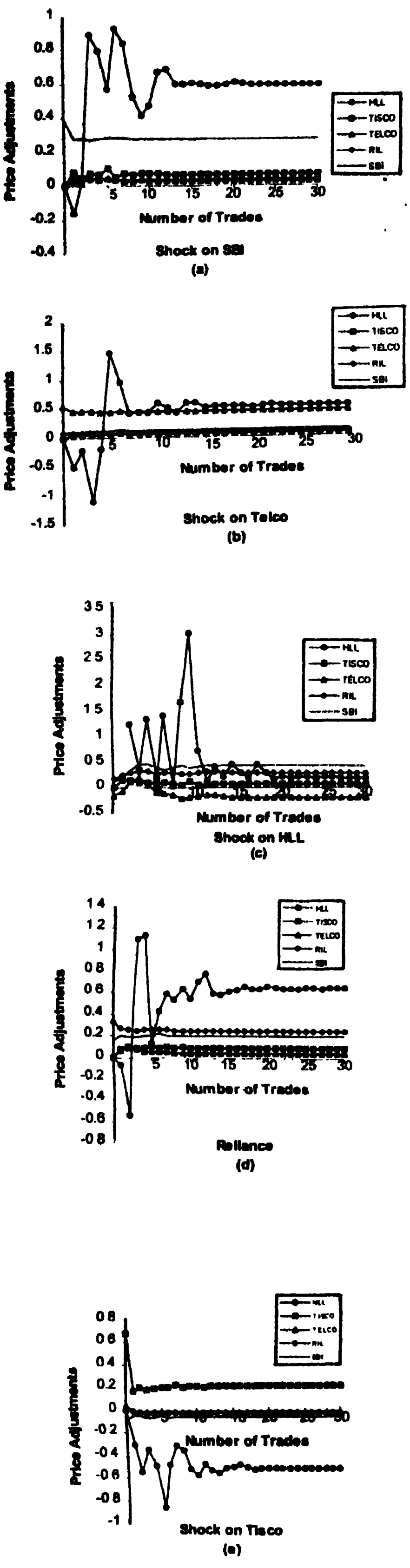
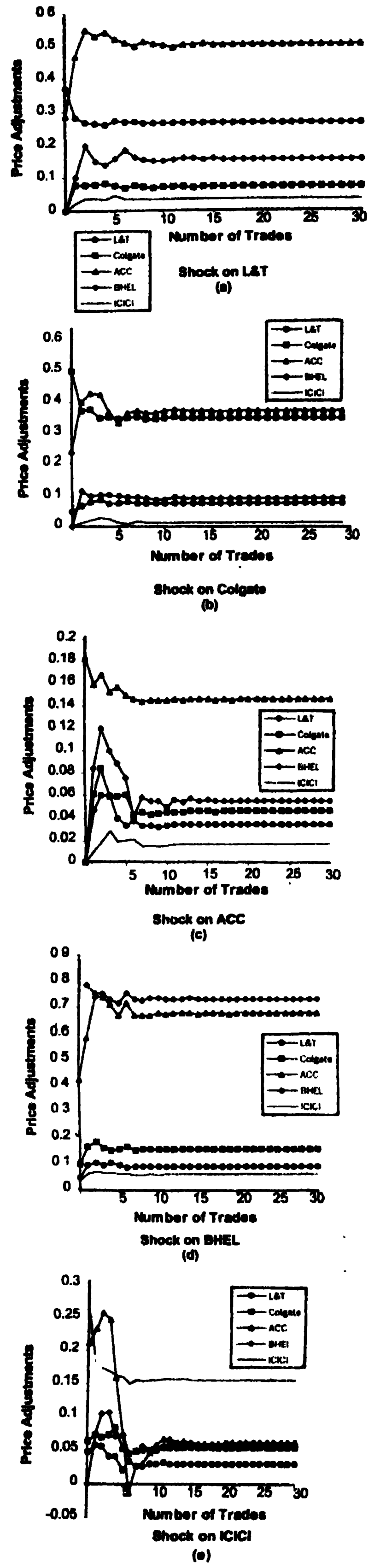


Figure 5: Reaction of Shocks Traded in BSE to Firm Specific Information (Last Five Based on Market Capitalisation)



mined by the past prices of other stocks (c) Are the short-run price movements stabilising? Stock prices in the short run can adjust in various ways. A stable form of adjustment is, when the prices adjust such that the long-run relationship between the stocks is reached quickly. (d) Is there a stock in any one of these two markets that is exogenous to the process of price formation? These stocks for which changes in prices of other stocks do not matter are exogenous and, in some sense, are prime movers in the market. (e) How does the stock respond to an orthogonal shock? This is analysed using Impulse Response functions. We examine how the price of a given stock evolves over time in the two markets in response to a random shock. It is possible to check whether the price response is mirrored across two exchanges. Any differences in the response will bring out the inherent structural differences of these exchanges. We also examine if the price response is stock specific. That is, would the response be different if we considered a large stock, a stock belonging to a finance firm, etc.

Impulse response function analysis imposes a one-time orthogonal shock and does not have any dynamics of its own (that is, this shock is not part of a larger system of shocks in the market). The information released by this shock is a marketwide information, which is to be distinguished firm-specific information.

(f) Is NSE structurally different from BSE in the sense that prices in the two markets for the same stock react differently to shocks? These shocks may be to a particular stock (in which case the first round effect would be on stock prices of similar industries) or systemwide shock in which case there may be a general effect on all stock prices. It would be particularly interesting to know whether there are systematic differences between the BSE and the NSE in regard to reacting to these shocks. Such differences, if present, would indicate structural differences between the NSE and the BSE which may be the result, among other factors, of differences in settlement cycles, types of traders and so on.

Each of the price series we used was discovered to be integrated of order one. Hence, the only way to examine whether each of the stocks contributes to the overall process of price formation is through the method of cointegration. Since there are more than two prices in each market we should permit for the existence of more than one cointegrating vector. This is possible using the method of Johansen and Jueslius (1990).

Figure 6: Reaction of Shocks Traded in NSE to Firm Specific Information (Top Five Based on Market Capitalisation)

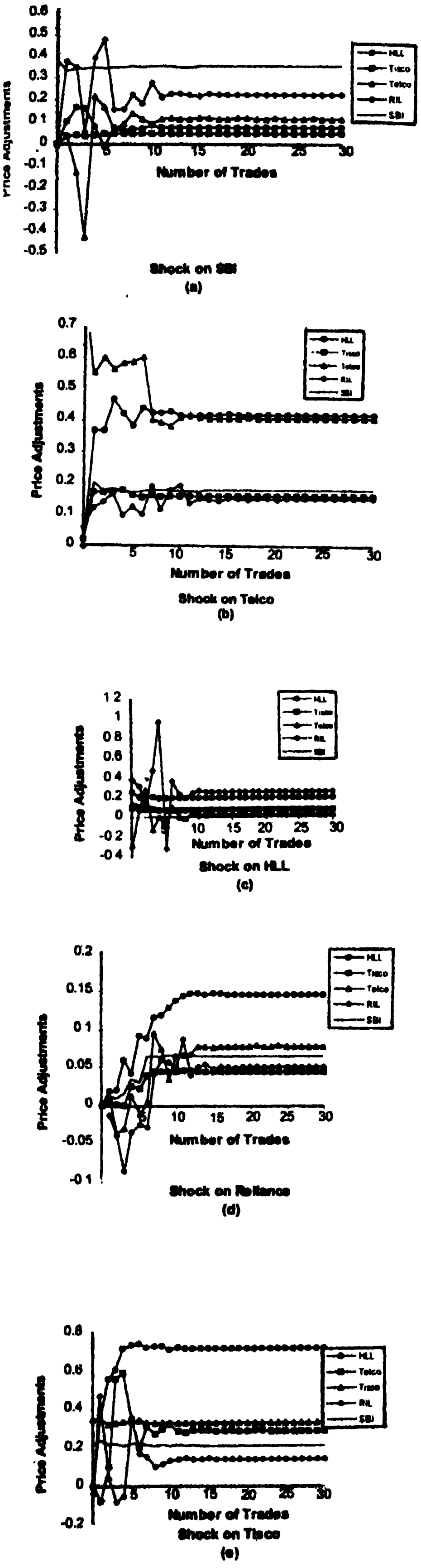
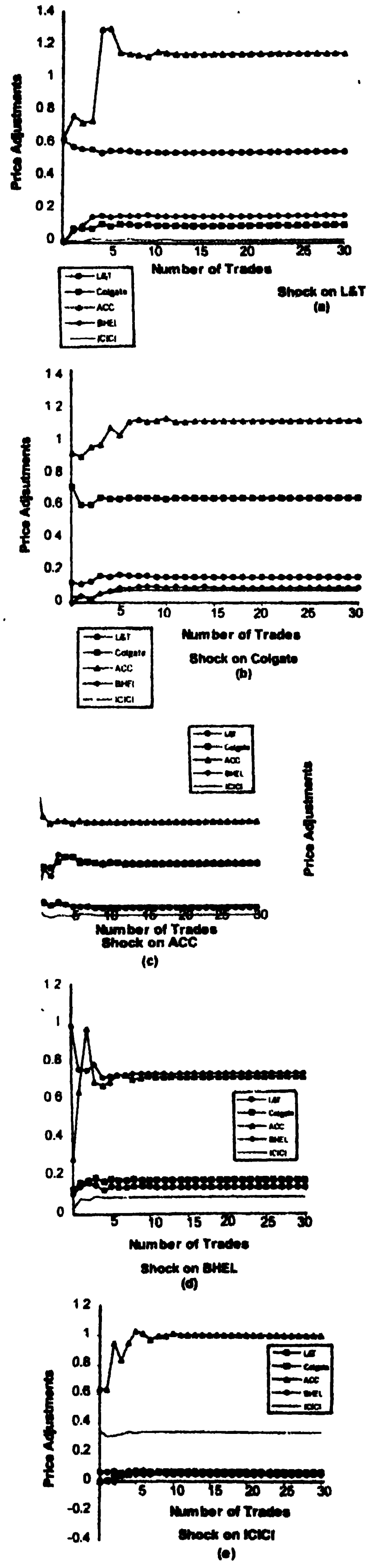


Figure 7: Reaction of Shocks Traded in NSE to Firm Specific Information (Last Five Based on Market Capitalisation)



The Johansen and Juselius approach defines an unrestricted vector autoregression (VAR) of the vector of variables z_t as involving upto k lags of z_t.

$$z_t = A_1 z_{t-1} + \dots + A_k z_{t-k} + u_t$$
$$u_t \sim IN(0,\Sigma) \qquad \dots(1)$$

where z_t is (nx1) and each of the A_i is an (nxn) matrix of parameters.

Now consider an (nxr) matrix β such that

$$\beta' z_{t-k} \sim I(0) \qquad \dots(2)$$

If all elements of z_t are I(1), then the columns of β must form cointegrating parameter vectors for z_{t-k} and hence z_t. Since there can be only (n–1) cointegrating vectors, β must have r less than n. If however, z_t is I(1) but the elements are not cointegrated, β must be a null matrix. Now define another (nxr) matrix α such that:

$$-A_k = \alpha\beta' \qquad \dots(3)$$

The Johansen technique is based upon the factorisation of (3). This technique involves reducing (3) to solving an eigenvalue problem. The eigenvectors associated with these eigenvalues are the cointegrating vectors.

We will write the Generalised Vector Error Correction Mechanism (ECM) of the system in (1) in its final form as:

$$\Delta z_t = \Gamma_1 \Delta z_{t-1} + \dots + \Gamma_{k-1} \Delta z_{t-k+1} - \pi z_{t-1} + \xi_1(EC_1(-1)) + \xi_2(EC_2(-1)) + \dots + \xi_r(EC_r(-1)) \qquad \dots(4)$$

Where $\Gamma_i = -I + A_1 + \dots + A_i$ (i=1,...,k) and $EC_j(-1)$ is the one period lagged error term when we use the jth cointegrating vector and there are r such error terms - one for each cointegrating vector. ξ_j is the coefficient on the lagged error term from the jth cointegrating vector. Clearly, the vector Δz may include a time trend, constant and other non-stationary variables.

To investigate for exogenity of changes in prices we proceed as follows. If the F statistic for the ECM is insignificant we conclude that the dependent variable in question is weakly exogenous. A negative and significant sign of the coefficient on the lagged value of the error correction term would indicate stable adjustment whereas a positive and significant sign would indicate unstable adjustment. If, in addition to weak exogenity, we find that the coefficient on lags of variables other than the variable under investigation are insignificant then we say that the variable is strongly exogenous. Only its own lags rather than changes in the values of other prices influence it.

Dynamics of the model can be further investigated by considering the model in

a VAR(1) format:

$$z_t = A_1 z_{t-1} + \varepsilon_t$$

which has a vector moving average representation (VMA).

This can then be orthogonalised so that the error terms are not correlated and written as

$$z_t = \sum_{i=0} \phi_i e_{t-i}$$

where the residuals e_{t-i} are orthogonal. The matrices ϕ_i are the impulse response functions since they represent the behaviour of the modelled series in response to shocks (innovations) and the vector e_t is the vector of innovations: the vector of impacts induced for particular variables when these impacts are independent from each other

Short-run behaviour of prices, therefore, provides information on whether any one stock is dominant in any market. Furthermore, it shows whether the short-run behaviour of prices is stable. The impulse response function then gives us some idea of the duration of instability, in case we find such instability obtaining.

IV
Results

Tables 4 and 5 provide the summary of the results. The results of the Error Correction Model can be had from the authors. The impulse responses are shown in Figures 2 and 3 and Figures 4 to 7 show the nature of the reaction of stock prices to firm specific shocks. There is a single cointegrating vector for BSE while there are two for NSE.

The estimated ECMs are subjected to a number of diagnostic tests to ensure that each regression equation is well specified. This includes Lagrange Multiplier tests for serial correlation and ARCH up to several lags, normality of residuals and RESET tests. In each case the performance of the equation was satisfactory. These results are not reported here to conserve space. The following points are to be noted.

(i) In BSE, the F test statistic is strongly significant in each case so that the ECMs appear to be well specified. Thus all stock prices are endogenous and there is no exogenous stock which influences other stocks but is not influenced by them. Overall, the short-run instability is quite high. Short-run adjustment occurs only for L and T in the case of BSE. In the NSE, there are three stocks, viz, Larsen and Toubro, Tisco and SBI whose short-run behaviour is stable whereas Telco and RIL are unstable in the short run. F statistics are strongly significant in the case of NSE as well. Hence no stocks are exogenous.

(ii) The Error Correction Model also shows that the relationship between large and small stocks is not symmetric in the two exchanges. The stocks SBI and BHEL show a positive (but weak) relationship in BSE while in NSE, a change in price of SBI causes a significant decline in the price of BHEL and vice versa.

(iii) The impulse response functions show that the stocks traded in both the exchanges behave as though they are different commodities. This is due to the differences in the settlement cycles in these two exchanges. Hence short-run arbitrage possibilities are existent.

(iv) The markets are for the most part informationally efficient. This is shown by the impulse response function. We find that any orthogonal exogenous event only creates extremely short-run (no more than 15 trades on an average) perturbations. The duration of this short run is, hence, no more than a few minutes.

(v) The cointegration vector table (3) for these stocks in the two exchanges differ. Neither the magnitude nor the signs of the long-term adjustment of prices are symmetric in these two exchanges. This points to persistence of differences between the BSE and the NSE.

(vi) Another important point that has to be noted is the fact that short-run price adjustments in the two markets show considerable variation (Table 5). Some stocks cause instability whereas others have a stabilising or random influence. Nevertheless, the presence of cointegrating relations in both markets indicates that there are long-run relations between these stocks in both markets.

(vii) The structural difference between the two exchanges is brought out in the manner in which these two respond to marketwide shocks (Figures 2 and 3) and firm-specific shocks (Figures 4 to 7). We find that firm specific shocks are able to generate greater short-term volatility in price in NSE than in BSE. The marketwide shocks (shown by the impulse response functions) have lesser impact on NSE than on BSE. This would then imply that the types of trades are different across the exchanges. It is quite possible that one exchange could have more hedgers than the other while speculators might trade in the other market to a larger extent.

V
Conclusions

On the basis of the analysis in this paper the following broad conclusions can be made about the two national stock markets of India. First, there are well-defined relations between stock prices in the long run in each of these markets. Hence market segmentation is strongly ruled out. Second, the short-run behaviour of stock prices is such that no stock price can be considered to be independent of the others. Short-run price movements are mostly random or unstable, but the impulse response function analysis suggests that the instability does not persist for long. Finally, there seems to be a marked difference in the manner in which reaction in the two markets for the same stocks differ in terms of the responses to firm specific and market specific shocks. This may point to differences in the types of traders in these two exchanges.

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Life Insurance in India

Emerging Issues

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Rajeev Ahuja

This article presents an overview of Life Insurance operations in India, and have identified the emerging strategic issues in light of liberalisation and the impending private sector entry into insurance. The need for private sector entry has been justified on the basis of enhancing the efficiency of operations, achieving a greater density and penetration of life insurance in the country, and for a greater mobilisation of long-term savings for long gestation infrastructure projects. In the wake of such coming competition, the LIC, with its 40 years of experience and wide reach, is in an advantageous position. However, unless it addresses strategic issues such as changing demography and demand for pensions, demand for a wider variety of products, and having greater freedom in its investments, LIC may find it difficult to adapt to liberalised scenario.

I
Introduction

INDIA has the highest number of life insurance policies in force and the total investible funds with the Life Insurance Corporation of India (LIC) are almost 8 per cent of GDP. The LIC employs more than one lakh employees who in turn supervise through 2,000 branch offices more than five lakh agents. Yet these numbers belie the fact that life insurance in India is spread very thinly and 'shallowly', and its role as a mobiliser of long-term savings is underdeveloped. Insurance companies in the developed world also sell products for old age income security in the form of pensions and annuities. The absence of pension coverage for a vast majority of Indians, also points to an important gap to be filled by the life insurance sector. In the 1990s however, LIC was put on its toes due to winds of liberalisation unleashed by the report of the committee on insurance reforms, and subsequent talk of allowing private entry into insurance sector. This has led to introduction of some new products and some innovations in customer service. But LIC largely remains a slow moving, over-staffed behemoth. For several decades now, it has sold overpriced and underpriced policies, and has tried to combine business objectives (being a corporation) and social objectives (being a state monopoly). There are big gaps in its product range which recent trends (described in section 6) along with liberalisation threaten to undermine its position. However, despite the usual public sector handicaps, LIC has the potential to turn its big size and reach to its decisive advantage in the wake of private sector entry into life insurance business.

In this article we present a comprehensive survey of life insurance in India. We also identify and analyse the strengths and weaknesses, and emerging policy issues in the operations of life insurance in India. For the sake of brevity and focus, we exclude from our analysis important policy issues such as whether foreign (and not just private) players should be allowed to enter the life insurance business, whether banks and other financial institutions also should be allowed to sell life insurance, what steps are needed for reforming the pension system in India, whether firms should be allowed to sell both life and non-life insurance products and so on.

The paper is organised as follows. In section II we present basic concepts in life insurance including a description of its role as a savings instrument. In this section we also review the recent macro-economic savings trend in the country. In section III we describe briefly the history of life insurance operations in India. In section IV we present a detailed description of the LIC, which is a state monopoly provider of life insurance, with a closer look at its performance in the 1990s. In section V we discuss various issues that are related to the liberalisation of life insurance in the country. To this end we provide some international data and examine its bearing on India's life insurance. In section VI we discuss the broader emerging issues in Indian life insurance in light of overall financial sector and demographic changes. Section VII concludes the paper.

II
What is Life Insurance?

The concept of insurance: Insurance is an arrangement to deal with unpleasant contingencies. It is a contractual arrangement which provides partial or total protection against adverse, typically financial outcomes. While there are many outcomes or risks which are insurable, there are many more against which there can be no insurance. Broadly insurance contracts can be divided into life and non-life insurance. Life insurance in particular provides protection to a household against the risk of premature death of its income earning member. In traditional societies such as India, the joint family system itself provided an insurance umbrella and succour to surviving family members.[1] In modern times such arrangements are now increasingly made through the market mechanism by 'buying insurance'. Thus, individuals pay a price (called the 'premium') to the insurance company for such a contractual arrangement, and the insurance company in turn, provides compensation if a specified event occurs. By making such contractual arrangements with a large number of individuals and organisations the insurance company can spread the risk. This gives insurance its 'social' characteristics, in the sense that it entails pooling of individual risks. Life insurance in modern times also provides protection against other life related risks, such as risk of longevity (i e, risk of outliving other sources of income) and risk of diseases and sickness (health insurance). The products that provide for longevity are pensions and annuities and are described in later sections.

Non-life insurance provides for protection against accidents, property damage, theft and other liabilities. Non-life insurance contracts are typically shorter in duration as compared to life insurance contracts.

Savings and premium: When an insurance contract is in operation between the insurer and insuree, the periodic payments made to the insurer (the premium) is the price paid for the service, i e, 'risk coverage'. When however the contract period is over a long time, as in the case of life insurance, premium payments have

two components. One goes toward 'buying' coverage and the other goes toward savings. This savings component of life insurance pits the insurer in direct competition with other financial institutions and savings instruments, such as bank deposits, equities and mutual funds. Since an increasing proportion of life insurance business involves pensions and annuities (insurance against 'old age') buying life insurance has elements of an investment decision.

The bundling together of risk coverage and savings is peculiar to life insurance, especially in developing economies.[2] A bank depositor can reclaim savings any time on 'demand'. In case of life insurance, the insuree cannot reclaim the savings component without some penalty. Such recall of the savings embodied in premium payments, amounts to cancelling or re-negotiating the insurance contract, and hence the penalty. There is thus a lock-in effect involved in signing insurance contracts.

The savings-linked life insurance contracts are pervasive. There are other short duration term life insurance contracts devoid of any savings component. The savings component, and the typically long-term nature of the contract, make life insurance an important instrument of mobilising funds required for long gestation and longer payback period investment projects. These are typically infrastructure projects which have high capital costs and low operating costs, substantial risks and sunk costs and high debt to equity ratio in their financing.[3] Substantial infrastructure investment is recognised as necessary for improving growth rates in developing countries such as India. In the next section we briefly examine the savings and investment trends in India and the role played by life insurance in it.

GDP and savings: Given the link between savings and premiums as explained above, any study of insurance business has to be seen in the context of all other savings activity of households. In a macro-economic sense the link between high growth rates and savings is well known from classical growth theory. In the context of India, Patel (1997) indicates that a growth rate of 8 per cent is possible only with a savings rate of 30 per cent. Gross savings in the economy is made of savings from the public sector, the private corporate sector and the household sector. In 1996-97 of the total gross domestic savings of Rs 3,338 billion (bln), the proportion contributed by the household sector was 78 per cent. Table 1 indicates of the trend of savings in the 1990s.

Household savings comprise of two components: (a) physical which includes land, gold, etc and (b) financial which includes bank deposits, life insurance, provident and pension funds, equities and debentures, small savings certificates and mutual funds. The composition of household savings has undergone a substantial change in the last two decades. In 1980-81 financial assets of households accounted for 39.4 per cent of household savings, going up to 63 per cent in 1993-94 and down to 45.3 per cent in 1995-96 and up again to 53 per cent in 1996-97. Household savings in financial assets have increased from Rs 86 bln in

TABLE 1: GROSS DOMESTIC SAVINGS BY HOUSEHOLDS

(Rupees in crore)

	1980-81	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97*
Gross Domestic Product (GDP)	136013	535534	616799	705918	810749	963492	1118964	1276974
Gross Domestic Savings (GDS)	28786	129999	141251	155225	183710	247087	283003	333816
GDS /GDP	0.21	0.24	0.23	0.22	0.23	0.26	0.25	0.26
Household Sector Savings	21848	109623	109359	124825	149673	195403	210417	259543
Household Savings / GDS	0.76	0.84	0.77	0.80	0.81	0.79	0.74	0.78
of which								
Financial savings	8610	49700	62139	65395	94517	108893	95715	136644
Currency	1625	6251	8157	6562	13367	15916	16525	13553
Net deposits	2985	11186	14514	19899	32846	32192	26210	59937
Shares and debentures	443	8410	15887	13824	14772	15519	8057	9634
Net claims on government	576	7360	4457	3530	6109	12955	9289	11636
Life insurance funds	859	5338	6623	6766	9197	11016	13342	15636
Provident and pension funds	2122	11155	12501	14814	18226	21295	22292	26248
and Saving in Physical Assets	13238	59923	47220	59430	55156	86510	114702	122899

Source: National Accounts Statistics, EPW RF and Economic Survey, * Quick Estimates

TABLE 2: SELECTED HOUSEHOLD SAVINGS RATIOS

	1980-81	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97
Fraction of household savings in financial assets (FA)	0.39	0.45	0.57	0.52	0.63	0.56	0.45	0.53
Fraction of FA in life insurance	0.10	0.11	0.11	0.10	0.10	0.10	0.14	0.11

Source: Table 1

TABLE 3: INSURANCE FUNDS COMPONENTS AND OTHER PENSION FUNDS

(Rupees crore)

	Insurance Fund 1	Life Insurance Funds 2	Postal Insurance 3	State Insurance 4	Provident and Pension Funds	Financial Savings (FS)	Percentage of FS in Life Insurance	Percentage of FS in Provident and Pension Funds
1980-81	915	821	24	70	2122	8610	9.54	24.65
1981-82	1048	944	28	76	2486	9614	9.82	25.86
1982-83	1235	1092	33	110	2863	12739	8.57	22.47
1983-84	1376	1221	33	122	3054	13294	9.18	22.97
1984-85	1557	1338	37	182	3686	17879	7.48	20.62
1985-86	1802	1522	49	231	4144	18538	8.21	22.35
1986-87	2159	1855	66	238	5055	23336	7.95	21.66
1987-88	2589	2196	74	319	6509	26820	8.19	24.27
1988-89	3423	3005	88	330	7552	27180	11.06	27.79
1989-90	4415	3984	109	322	9508	37998	10.48	25.02
1990-91	5599	5030	133	436	11155	49700	10.12	22.44
1991-92	7003	6388	165	450	12501	62139	10.28	20.12
1992-93	7114	6440	182	492	14814	65395	9.85	22.65
1993-94	9548	8784	222	542	18226	94517	9.29	19.28
1994-95	11370	10439	[illegible]	673	21295	108893	9.59	19.56
1995-96	13894	12934	324	636	22292	95715	13.51	23.29
1996-97	16188	15127	335	726	26248	136644	11.07	19.21

Source: National Accounts Statistics, EPW RF: (1) = (2) + (3) + (4).

1980-81 to Rs 404 bn in 1990-91 and then to Rs 972 bn in 1995-96. Within the category of financial assets, savings in life insurance were almost 10 per cent of total financial assets in 1980-81 and increased to 14 per cent in 1995-96 (see Table 2).

As seen from Table 2, insurance continues to be a significant part of household financial savings. While financial savings as a fraction of total household savings have gone up in the last decade, the fraction devoted to insurance has remained constant at almost 10 per cent of all financial savings. The total insurance funds raised every year in the country are made up of various components which includes life insurance, postal and state insurance (see Table 3). The breakup of insurance funds into various components is shown in Table 3 which also shows that the percentage of financial savings in life insurance has remained roughly at 10 per cent and percentage in provident funds and pension funds has declined from a high of 28 per cent in 1988-89 to 19 per cent in 1996-97.

Pension funds and LIC provide a significant source of investment funds to the government. A detailed description of LIC's investments is given in section IV. Suffice it to observe here that LIC's investment in central government securities account for 18 per cent of total central government securities. In case of state government securities, 12 per cent of it are held by LIC. Sectorwise distribution of LIC investments show that as high as 84 per cent go to the public sectors, around 13 per cent go to the private and the balance go to co-operative and joint sector.

III
A Brief History of Insurance in India

Life insurance activity in its modern form started in India in 1818 to provide for English widows. The first (Indian) life insurance company, the Bombay Mutual Life Assurance Society started its business in 1870. This was the first company that charged the same premium on both Indian and non-Indian lives. Earlier, native Indian lives were considered more risky and hence were charged a higher premium for coverage. Foreign insurance companies dominated in matters of insurance business in India and enjoyed near monopoly right upto the end of 19th century.[4] There existed a close association between the nationalist movement in India and the development of Indian insurance companies. There was a rapid growth of life insurance in India during 1920s and early 1930s.

Insurance regulation began formally in India through the passing of two acts, The Life Insurance Companies Act of 1912 and the Provident Fund Act of 1912. However, the first comprehensive legislation was introduced with the Insurance Act of 1938 that provided strict state control over insurance business in the country. This provided an effective check on large scale frauds that sullied insurance business during the 1930s.

After independence, the business of Indian insurance grew at a faster pace as competition amongst the Indian companies intensified and as the non-Indian insurers were dislodged by Indian life companies. Despite the strides by the Indian companies, insurance business remained an urban phenomenon. There was an immense scope for further spread of life insurance in the country. Moreover, this limited development was marked by many malpractices involving misuse of insurance funds, excessive costs, deficiencies and frequent liquidation of insurance companies. This shook public confidence and also deprived policy-holders of their savings and security.

LIC came into being in a scenario of insurance marred by insolvencies, increasing public distrust and mainly confined to urban areas.

The Life Insurance Corporation of India (LIC) was formed in 1956, when the government of India brought together over 200 odd private life insurers and provident societies, under one nationalised monopoly corporation. Another justification for nationalisation was to raise the much needed funds needed for rapid industrialisation and self-reliance in heavy industries, especially since the country had chosen the path of state planning for development. Insurance provided the means to mobilise household savings on a large scale. LIC thus came into being with a stated mission of mobilising savings for the development of the country and also conducting the business in the spirit of trusteeship and providing protection to the people in every part of the country. This latter emphasis on trusteeship was relevant then, in light of major insolvencies and fraudulent practices of some private insurance companies prior to 1956. Life insurance in India has also been sold, albeit on a much smaller scale, since the late 19th century[5] through the post office network. Postal life insurance is described in section VI.

IV
Life Insurance Corporation of India

LIC is more than 40 years old.[6] With more than one lakh employees, 2,000 odd branch offices, over 5 lakh active agents and more than 90,000 crore of investible funds, it is a big part of the nation's financial life. There has been a major social thrust to the activities of LIC, both at covering the poorer and vulnerable sections of Indian society through group schemes, and at investing the income in infrastructural and socially beneficent projects. Life insurance in India has spread over the years. This is reflected both in the growth in size of LIC and volume of business done by it. A snapshot view of the LIC operations around its birth and during 1996-97 is presented in Table 4.

Social role of LIC: One of the objectives of nationalisation of life insurance operations was to conduct the business with social objective in mind. Accordingly, there has been a major social thrust to the activities of LIC, both at covering the poorer and vulnerable sections of Indian society through group schemes, and at investing the income in infrastructure and socially oriented projects.

LIC is a public monopoly, owned wholly by the government of India. However, its charter specifies that only 5 per cent of its annual valuation surplus goes to the government (the owner) and the rest 95 per cent is returned to policy-holders in the form of bonuses and profits.[7] It is thus run almost like a mutual fund of the policy-holders. As seen from Table 8, LIC has generated surpluses consistently. This has bearing on the issue of actuarially unfair pricing. Thus, the so-called unfair pricing

TABLE 4: LIC IN 1956-57 AND 1996-97: A SNAPSHOT

	1956-57	1997-98
Policy-holders (lakh)	.56	850.03
Income from premiums (crore)	88	19,252
Investible funds (crore)	410	1,05,833
Employees	NA	1,25,61
Active agents	NA	5,58,000
Number of branches	240	2,046
Rate of return on investments (per cent)	4.52	12.3

Source: Annual reports of LIC

TABLE 5: GROWTH OF NEW LIFE INSURANCE BUSINESS IN INDIA – INDIVIDUAL INSURANCE (EXCLUDING ANNUITIES)

Year	Number of Policies (in lakh)	Growth over Previous Year (per cent)	Annual Premium (Rs crore)	Growth over Previous Year (per cent)
1990-91	86.5	NA	1527	NA
1991-92	92.4	6.82	1790	17.22
1992-93	99.6	7.79	2038	13.85
1993-94	107.3	7.73	2508	23.06
1994-95	108.8	1.4	2534	1.04
1995-96	110.21	1.3	2814	11.05
1996-97	122.68	11.31	3345	18.87
1997-98	133.11	8.5	3859	15.37

Source: Annual reports of LIC

results in surpluses, which are automatically returned to the policy-holders in the case of LIC.[8]

LIC's charter (the LIC Act of 1956) requires it to invest at least 75 per cent of its funds into socially oriented projects. As on March 1997, LIC invested Rs 61,074 crore in central, state and other government guaranteed marketable securities, and loans to various socially oriented schemes. These funds are used to provide for and improve basic amenities such as potable water, drainage, housing, electrification and transport. In 1997 the scope of socially oriented investment was widened to include infrastructure projects such as ports, roads, including highways, and railways.

LIC's other social role is seen in its subsidising specific kinds of policies. For the unorganised and rural sectors, group life insurance has an important role to play in supplementing other state level efforts, like providing old age pensions, employment generation scheme, preventive health and medical care. LIC's social security group insurance scheme that is applicable to 23 approved occupations including beedi rollers, rickshaw pullers, construction workers, self-employed women, covers around 50 lakh lives. Around six lakh lives are covered under rural group life insurance schemes (RGLIS) started from August 1995. At the time of nationalisation, insurance was largely an urban phenomenon but currently LIC underwrites 50 per cent of its new business from rural areas. All restrictions on other LIC investments (apart from the mandatory minimum 75 per cent) have been removed since June 1997. Mean returns on the LIC Fund has been increasing over the years.

Other related activities: In the 1970s LIC branched out into mass insurance through group insurance, later, extending to social security. It further entered the pension field in mid-1980s. During 1989-90, the corporation branched out into other related spheres of activity with the creation of three subsidiaries, viz, LIC Mutual Fund, LIC International, and LIC Housing Finance. Even though LIC has some limited foreign insurance business, and does reinsure with foreign organisations, its foreign activities have negligible foreign exchange Implications. LIC's initiative to provide related financial services through its extensive network of branches has come none too soon.

LIC's performance in the 1990s: The performance of LIC over 1990-91 to 1997-98 is given in Table 5 and Table 6. This information is culled from the various annual reports of LIC.

The debate on reforms in insurance sector has put some pressure on LIC to improve its performance. This is reflected in its overall performance in the 1990s. Its total premium income, around 90 per cent of which comes from individual insurance and the balance from group and annuity schemes, has grown at a compound annual growth rate (CAGR) of 19.6 per cent between 1990-91 and 1996-97. Likewise, the life fund grew at the rate of 20.7 per cent over this seven-year period. It stood at Rs 1,05,833 crore on March 31, 1998. Total premium income as well as life fund, both as a percentage of GDP have shown a steady increase, the former rising to 1.42 and the latter to 7.64 in the last year of the period under consideration (see Table 7).

Recent trends in premium income: Premium on new business individual insurance that comprised a third of the total premium income (new as well as renewal premium) declined to less than a quarter between 1990-91 and 1996-97. The growth rate of number of new policies, nearly half of which are written in rural areas currently, does not show any clear trend during the same period. Yet, total premium income from individual plans continued to grow at a reasonable rate. This is to a large extent due to greater preference for policies of higher sum assured. Share of policies with sum assured of Rs 50,000 and over increased from around 8 per cent in 1990-91 to 19 per cent in 1996-97. This share being picked up wholly at the expense of policies with sum assured of Rs 10,000 or less.

In the 1990s LIC introduced number of new products a few of them have been quite popular. This is reflected in the fact that the share of two most popular policies, namely, Endowment policy and Money Back policy, which constituted about 75 per cent of the business in 1991-92, has gone down to almost 56 per cent in 1996-97. Asha Deep, Bima Kiran, Jeevan Surabhi, introduced in the 1990s, did well in the market.

LIC's expenses: Overall expense as a percentage of premium income maintained a declining trend over the same period, though renewal expense as a percentage of premium income showed a steady increase from 3.52 to 7.1 during 1990-91 and 1996-97. Operating expenses, that include commissions as well as management expenses, as a percentage of total income (premium income as well as income from other sources) showed a steady decline over the period under consideration. In 1996-97, its share in total income was 14 per cent. Salaries account for much of the management expenses.

Net lapse, defined as lapses minus revivals, is the highest in the second year. That is, most policies that lapse, lapse

TABLE 8: AMOUNT PAID BY LIC TO THE GOVERNMENT

(Rs crore)

Year	5 Per Cent Surplus	Taxes	Total
1990-91	90	254 9	344.9
1991-92	105.41	326 6	432.01
1992-93	118 42	407 15	525 57
1993-94	140 15	431 92	572 07
1994 95	160.94	508 98	669.92
1995-96	171 69	582 28	753.97
1996-97	198.35	585.06	783.41

Source Annual reports of LIC

TABLE 6 GROWTH OF LIFE BUSINESS IN FORCE IN INDIA

As on 31st of	Number of Policies (lakh)	Growth over Previous Year (per cent)	Annual Premium (Rs crore)	Growth over Previous Year (per cent)	Total Sum Assured in Rs crore	Growth over Previous Year (per cent)
March 1991	455.1		4777		118651	
March 1992	508.6	11.76	5946	24.47	145929	22.99
March 1993	566.1	11 31	7146	20.18	177268	21.48
March 1994	608	7.4	8758	22.56	207601	17.11
March 1995	645.5	6.17	10385	18.58	253333	22.03
March 1996	708.7	9.79	12094	16.46	294336	16.19
March 1997	776 6	9 58	14500	19 89	343018	16.54

Source. Annual reports of LIC.

TABLE 7: GDP AND LIFE FUND

Year	GDP	Life Fund	Percentage to GDP	Premium	Percentage to GDP
1990-91	533324	28401	5.33	5601	1.05
1991-92	615655	34691	5 63	6960	1.13
1992-93	705566	40998	5.81	7987	1 13
1993-94	803632	49666	6 18	9735	1 21
1994-95	922200	59979	6.5	11528	1.25
1995-96	1101700	72780	6.61	14182	1.29
1996-97	1149200	87760	7.64	16351	1.42

Source: Annual reports of LIC, Economic Survey.

in the second year of its purchase. This ratio has increased over the 1990s. Ratio of outstanding claims to claims payable hovered between 5 per cent and 6 per cent.

The 'March' effect: Analysis of monthwise distribution of new business individual insurance suggests a consistent pattern year after year. The maximum business every year (around 33 per cent of the total number of policies) is done in the month of March, the month of financial closing, while less than 1 per cent of the total policies are written in the following month, that is, April. The new insurance business after plummeting in April, recovers to some extent in May and then gradually picks up till September, lowering somewhat during October, the festival season, and then starts rising again till December. It falls somewhat in January and February before peaking in March. This 'March Phenomenon' reflects the fact that awareness of the need for life insurance as a service is much limited, and most people buy life insurance more to avail tax benefits than to cover the financial risk faced by the family members from the death of the breadwinner. This observation that insurance purchases are tax induced has to be qualified since the country has only about 12 million tax-payers but almost 65 million policy-holders. Hence the extent to which tax incentives determine insurance purchases is limited.

Regional variations: Regional analysis of insurance, across seven zones in which LIC divides the country, suggests that insurance penetration (total premium income as percentage is of zonal domestic product (ZDP)) is maximum in the southern zone. This is followed by western and then south central zone while it is lowest is in central (Madhya Pradesh), and only a little better in north central (Utttar Pradesh) zone. There exists a strong correlation between per capita premium income and per capita zonal domestic product suggesting an increase in per capita income to be the surest way to increasing insurance penetration. Regionwise insurance density follows broadly similar pattern. However, number of policies as a percentage of population shows a strong correlation with social indicators such as regionwise literacy level. For example, top two regions (southern and western zones) according to literacy rate are also the regions having the highest number of policies as a percentage of its population. Similarly, the lowest two regions (north-central and central) in terms of literacy rate are also rank lowest in terms of number of policies as a percentage of its population.[9]

Effect of tax laws: As already mentioned in section IV, there is a significant impact of tax-incentives in the purchase of insurance. In this section we look at the tax treatment of the insurance company. Taxation of Insurance companies is governed by Income Tax Act 1961. Under this act, profits and gains of life insurance business is taken to be the surplus arrived at by way of actuarial valuation made as per Insurance Act, 1938. An assessee has to pay income tax at the rate of 12.5 per cent on his income from life insurance business. Further, Income Tax Act provides that any income of a fund set up by the LIC on or after August 1, 1996 under a pension scheme is exempt from income tax.[10] The amount that LIC paid to the government both on valuation surplus and the tax is shown in Table 8.

V
The Liberalisation Debate

The committee for insurance sector reforms: Liberalisation of the insurance sector commenced with the setting up of the insurance reforms committee by the government of India in 1993. Among other things the committee recommended [GOI 1994] that private insurers be allowed to co-exist along with government companies like LIC and General Insurance Corporation (GIC) companies. This recommendation had been prompted by several factors such as need for greater and deeper insurance coverage in the economy, and a much greater scale of mobilisation of (savings) funds from the economy for infrastructural development. Liberalisation of the insurance sector is at least partly driven by fiscal necessity of tapping the big reserve of savings in the economy. Its main recommendations are as follows:

(1) Raising the capital base of LIC from Rs 5 to 200 crore, half retained by the government and rest sold to the public.

(2) Restructuring of LIC involving delegation of financial, administrative and operational authority to the zonal offices. Central office should concentrate on policy formulation, product development, investments, personnel policies, and accounts of the corporation.

(3) Use of modern technology at all levels and development of effective management of information system

(4) Setting up of a strong and effective regulatory body with independent source for financing before allowing private companies into the sector, and

(5) limited number of private companies to be allowed in the sector. But no firm to be allowed to operate in both lines (life and non-life) of insurance. Minimum paid-up capital for a new entrant should be Rs 100 crore with promoters holding not exceeding 40 per cent and at no time be less than 26 per cent of the paid-up capital. Foreign companies required to float an Indian company for the purpose.

(6) Reducing mandated investment of fresh accretions from the present level of 75 per cent which is considered to be high.

The insurance regulatory authority (IRA) mentioned above, whose formation has to

TABLE 9: NO OF POLICIES PER 100 PERSONS

Country		Remark
Japan	489	Most of the countries
US	140	listed, except India have
Singapore	64	a substantially smaller
South Korea	52	faction of the population
Taiwan	47	in agriculture wherein
India	7	spread of insurance is the least.

Source: Compiled by the authors from various sources.

TABLE 10: INTERNATIONAL COMPARISONS OF PREMIUMS AS PER CENT OF GDP (1992)

	Total	Life
Africa		
South Africa	12.8	10.3
Zimbabwe	4.8	2.9
Kenya	2.4	0.5
Morocco	2.1	0.4
Tunisia	1.7	0.1
Asia		
China	1	0.3
South Korea	12.3	9.8
Japan	8.6	6.4
Taiwan	4.8	3.3
Malaysia	3.8	1.7
Singapore	3.7	2.3
Philippines	2.3	1.4
Thailand	2	1.1
India	1.7	1.1
South America		
Brazil	4.3	0.5
Panama	3.3	NA
Chile	3	1.8
Colombia	1.8	0.4
Argentina	1.6	0.2
Mexico	1.5	0.5
Venezuela	2.2	NA
North America		
US	8.83	3.66
Canada	6.97	3.27

Source: Sigma, World Insurance in 1992, Swiss Reinsurance Company, March 1994.

TABLE 11: ANNUAL GROWTH RATE OF LIFE PREMIUMS

Country	1991	1992	1993	1994
China	11.66	27.47	9.48	NA
India	24.27	14.76	21.88	18.41
Sri Lanka*	41.58	23.03	19.04	54.68
Philippines	18.69	17.64	19.95	18.64
Malaysia	23.60	18.60	22.80	23.60
Japan	3.37	4.57	2.92	0.32

Source: Samsung (1995), * Projected for 1994.

precede the entry of private sector players in insurance, requires legislative action IRA has been formed but as of this writing, has not gained statutory status The following section discusses the proposed role of IRA briefly

The Role of the regulator Insurance sector liberalisation has to be seen as a part of the reform of overall financial sector The smooth functioning of the financial sector depends heavily on the continuation of the trust and confidence that people place on finance companies and financial products Since products such as insurance are basically a promise to pay these products are of little value to consumers if they cannot trust the company to keep its promise Furthermore, banking and insurance sectors are vulnerable to the 'bank run' syndrome, wherein even one insolvency can trigger panic among consumers The regulatory authority apart from its traditional functions must respect the need to ensure consumer confidence [11] In any other business some insolvencies can be seen as desirable since they are a normal process of weeding out of inefficient firms But in the financial sector one insolvency can potentially cause a domino effect wiping out an entire industry

The role of the proposed IRA can be seen as comprising the following three functions

(a) the protection of consumers interest this includes disclosure norms specifying mandatory products and risk standardisation also providing for quick dispute settlement

(b) to ensure financial soundness of the insurance industry this involves developing solvency indicators monitoring and auditing functions developing licensing and capital adequacy norms and penalties for violations

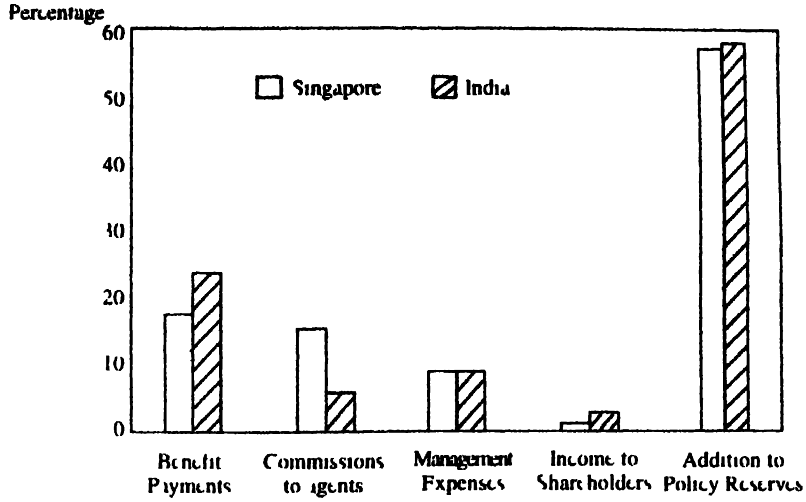
(c) to ensure healthy growth of the insurance market better education to consumers

(d) regulating insurance intermediaries such as agents brokers consultants and surveyors to evolve guidelines on the entry and functioning of such intermediaries

These objectives must be achieved with minimum government involvement and cost IRA's functioning can be financed by levying a small fee on the premium income of the insurers thus putting zero cost on the government and giving itself autonomy

IRA can also consider allowing banks to act as agents (as opposed to underwriters) of insurers in mass base types of products Given their wide network of branches and their customer base the banks can access

FIGURE INDIA (1995 96) AND SINGAPORE (1995) UTILISATION OF INCOMES



this market for insurance products and also earn commission income The incremental cost of providing such insurance products would be much lower Such a move of allowing banks to operate insurance business and vice versa is consistent with a worldwide trend of greater integration of banking and insurance

Treading with caution The move toward allowing private sector into insurance is motivated by prospective gains in efficiency product variety customer service and a general deepening of insurance operations in the country More importantly it will also ensure a greater mobilisation of funds required for infrastucture development However there have been some reservations expressed in allowing private entry on the following grounds (a) there would be a tendency for skimming the markets thus private players would concentrate on the lucrative mainly urban segment leaving the unprofitable segment to the incumbent LIC (b) without adequate regulation the funds generated may not be deployed in sectors which yield long term social benefits such as infrastructure and public goods similarly without regulation private firms may renege on their social sector investment (and possibly co insurance) obligations Meeting these concerns[12] requires a strong regulatory body

Another cautionary note is expressed in estimating the potential size of the market for life insurance products The current focus seems to be mainly on the non agricultural mainly urban and middle class sector which it can be argued has been adequately targeted by LIC The biggest growth area is rural agricultural sector wherein it is not clear whether new private entrants would have any competitive edge over LIC This is an area where unconventional and innovative marketing strategies would have to be used to reach the target population

Benchmarks from abroad Insurance density defined as premium per capita, is one of the commonly used statistics for comparing the spread of insurance across countries Such a measure is not appropriate for several reasons Briefly these are

(a) different countries have vastly different aggregate incomes thus to the extent that life insurance is a normal good, its demand is likely to be higher in more affluent countries

(b) the distribution of income varies substantially across countries thus even controlling for aggregate income a country with a more skewed distribution is likely to have lower per capita demand for insurance

(c) tax treatment of insurance and hence incentives to buy life insurance differ markedly across countries

(d) degree of development of alternative financial markets and instruments may be different across countries for example, the *Economist* magazine [*Economist* 1997b] cites that in South Africa since bank deposits earn a negative real rate of return the assets of insurance companies as a fraction of GDP is second highest in the world, next only to Japan

Given this comparisons across countries are only indicative Less than 7 per cent of the population in India has life insurance covered In Singapore around 45 per cent of the people are covered and in Japan this is close to 100 per cent In the US over 81 per cent of the households have insurance covered [13] India has the biggest life insurance sector in the world if we go by the number of policies sold, but the number of policies sold per 100 persons is very low (see Table 9) However, this obser-

vation has to be qualified by noting that insurance is typically spread very thinly among rural agricultural population, which constitutes a negligible proportion in the developed countries, whereas it is amlost 67 per cent of India's population.

But total life premiums collected per annum, was only 1.4 per cent of Gross Domestic Product in 1996-97. This measures market penetration of insurance within any country. In Singapore this figure was about 2.3 per cent in 1995, for Japan it was 6.3 per cent, and for South Korea the rate was about 9.8 per cent. Since Indian insurance collection is a tiny share in the world life insurance premium collection, and it is itself a small proportion of India's GDP, it means that the average premium collected per policy is very low. The market share of world life insurance premiums is topped by Japan (30 per cent), followed by USA and then by UK. The share of all developing countries is a meagre 2.5 per cent. Similarly, the amount of premium collected per capita too is very small compared to developed countries or even some of the fast growing developing countries (see Table 10).

The major insurance markets in south and east Asia are in varying degrees open. These range from comparative free markets of Hong Kong and Singapore to the increasingly more liberal markets of South Korea and Taiwan to a more densely regulated insurance sectors of Thailand and Malaysia. Opening up of insurance sector is an integral part of the liberalisation process being pursued by many developing countries. Since 1987, when Korean and Taiwanese insurance sectors were liberalised, the Korean market has grown three times faster than GDP and in Taiwan the rate of growth has been almost four times that of its GDP. Philippines opened up its insurance sector in 1992.

The industry structure shows a high concentration in life insurance business in many countries. Even though there are more than 1,200 active life insurance companies in the US, the 10 largest life insurance companies hold 43 per cent of total industry assets in 1990. The market share of 10 largest companies in terms of premium is 53 per cent in case of Australia, 72 per cent in Philippines and 90 per cent in case of Singapore.

The claim settlement ratio of LIC, defined as percentage of claims settled out of total submitted is probably the highest in the world.

Utilisation of income comparison: India and Singapore: Figure shows the pattern of income utilisation between India and Singapore. The major difference reflected in the two charts is in the benefit payments and the commissions paid to the agents. Generally, commissions paid to agents are higher wherever the insurance industry is competitive. This is also the case in Singapore. While commissions to LIC agents in India form only 5 per cent of the income, its share in Singapore is 16 per cent. In Malaysia share of commissions is close to 20 per cent. The benefit payment to the policy-holders in India is much higher as compared to what policy-holder gets in Singapore. This is because of the mutual fund nature of LIC, wherein valuations surpluses flow back to policy-holders. Much of benefit payments to the policy-holders go in the form of maturity claims. Its share in total benefit payments in India was about 70 per cent whereas in Singapore it was just 50 per cent. Another important difference is with respect surrenders. Surrenders form 25 per cent of the benefit payments in Singapore whereas it's share in India is just about 9 per cent.[14]

VI
Emerging Issues

The demand for life insurance has two sources, viz, the risk of premature death and the risk of longevity. The respective products which cover these two types of risks are term insurance (where the term can be long), and pensions or annuities. The market for annuities in India is almost non-existent, and LIC coverage is also very small. The usual products offered by LIC bundle savings and term insurance. In the following sections we discuss the prospects for life insurance in India from both these sources.

Demographic trends: Two relatively modern trends in the Indian context affect life insurance business significantly. One is the breakup of the joint family system which worked like an insurance arrangement. With more and more nuclear families becoming the rule, there is a greater demand for life insurance cover for the breadwinner of the family. The second trend, also connected with the first one, is that the elderly are increasingly having to fend for themselves. In 1990 India had about 54 million people above the age of 60. This number is expected to rise to 71 million by 2000, and to almost 10 per cent of the total population by 2010. Thus future senior citizens look to plan for their own old age, rather than be a burden to their children. There is a greater awareness of planning for old age, and the need for pensions and annuities. These two trends portend a large and growing market for life insurance in India.[15] Some other factors which are catalysing these developments is the increase in the size of India's middle class, rising per capita incomes and rising literacy.[16] With an estimated size of 250 million, the middle class is at least four times as large as the current coverage of LIC. Other developments are above 6 per cent growth rate of the economy which translates into higher savings, and a proliferation of savings instruments, an economically liberalised atmosphere, greater consumer awareness and level of education about insurance.

Demand for pension plans: In much of the developed world, pension funds represent an important form of financial assets in the economy. For example in the US economy in 1992, pensions accounted for 36 per cent of all financial assets, behind banks with 46 per cent. There are important conceptual issues surrounding the provision, funding and management of pension funds, which we do not discuss in this paper.[17] For example, it is now recognised that the state cannot be the sole provider of old age income, nor is it advisable to leave pensions completely in the private arena. In India however, except for the organised sector employees, for much of the labour force, including the self-employed, there is hardly any social security in the form of old age pension. Out of an estimated 340 million people in the labour force, less than 30 million are covered by any old age income security, including pensions (for mainly central government employees), employees' provident fund and public provident fund. The biggest single group of persons not covered by any old age income security is agricultural labour.

There are at present basically three forms of old age income security, viz, provident fund, gratuity and pensions. Employees' Provident Fund Scheme (EPFS) of 1952 is the largest of all provident fund schemes, covering almost 20 million employees in the organised sector and having a corpus of over Rs 800 billion. The fund which is administered by a central board of trustees (CBT), is severely regulated in terms of investment options. Other provident fund schemes are Coal Mines Provident Fund Scheme, Central Government Employees' Group Insurance Scheme, and Public Provident Scheme. Some provident funds are exempted from the EPFS law (usually large corporations), and are managed by their own trustees funds (though subject to identical investment norms) and amount to about Rs 250 billion.

Under the gratuity scheme received on retirement, death or resignation, benefits are paid according to Payment of Gratuity

Act, 1972. The cost of gratuity is entirely borne by the employer and is paid on cash basis or funded by the employer during the service period of an employee. The fund so formed is administered by a trust or contributions are paid to LIC under its Group Gratuity Scheme. The estimated corpus in the Gratuity fund is about Rs 250 billion.

The third form of social security that is currently prevalent is pensions. Central government employees, including those in military service are covered by pensions which are indexed to the cost of living. LIC also provides pension schemes but the premium amount it receives from such schemes forms only a very small part of its total premium income. Institutions that have arrangements for payment of pension to their employees can either set up an internal fund, and purchase an appropriate life annuity only from LIC as and when an employee retires or purchase a group pension policy from LIC. This monopoly of LIC in providing annuities for employers with private pension arrangements was relaxed in 1997, when UTI was also allowed to sell annuities.

The lack of growth of pension plans in India is due to a combination of inadequate tax relief for pension funds combined with strict investment restrictions that yield low returns. Furthermore the virtual monopoly of LIC, whose lack of innovation and marketing in this respect, has ensured that pensions remain very undeveloped in India. In other countries such as Singapore the resources of the central provident fund to GDP was 76 per cent in 1990, in Malaysia it was 41 per cent. In South Africa the assets of pension funds and insurance companies was as high as 84 per cent of GNP in 1990. In developed countries like Switzerland and Netherlands the assets of pension funds and life insurance companies to GNP was 110 and 107 per cent respectively in 1990. In US and UK, pension fund is 66.7 and 54 per cent of GDP respectively. In Chile, in 1994, pension fund was 43 per cent of GDP.

Investment pattern in the allocation of pension funds also varies greatly across countries. While in UK, pension funds invest 72 per cent of their resources in real assets, that is, equities and real estate, and the remaining in debt instruments, in the US it is 46 and 54 per cent respectively. Swiss and Dutch invest, respectively, 33 and 31 per cent of their pension fund in real assets. In developing countries such as Singapore and Malaysia most of these funds are placed in government bonds and other debt instruments. Chile, much talked about country for its pension reforms, currently invests around 30 per cent of its pension funds in equities.

Another reason for the lack of popularity of pensions in India, as Insurance Reforms Committee also pointed out, is tax relief given to contributions to the pension/annuity is much less in India than in UK. Another tax anomaly that needs to be corrected is the asymmetric treatment of LIC *vis a vis* employer funded pensions.

The pension system in India needs substantial reform, with one of the main objective being to bring a large section of the workforce under the pension umbrella in a fiscally sustainable manner. Other policy issue concerns whether participation in pension system be compulsory or voluntary, and what kind of regulatory oversight is necessary for private sector pension fund management.[18]

Competition with other savings assets: As mentioned earlier in this article, the bundling of savings and insurance is peculiar to life insurance. As the financial sector develops and there is a wide range of financial products to choose from, the attractiveness of using life insurance contracts as partly a savings instrument depends on the rate of return. This in turn is determined by the freedom available to LIC on deciding on an optimum mix for its investment portfolio. Severe restrictions, such as government mandated investments would mean that its ability to offer higher returns on the savings component would be limited. It is seen that in developed economies there is considerable separation between insurance and savings products, and as such a wide range of insurance-only products called term insurance products are sold. Even among savings linked products, there is a wide variety with scope for customer specified savings share, and also inflation indexed (variable) returns. In the current regime the process of introducing new products in LIC is very slow and constrained, and this will need revamping.

Issues in Pricing: LIC is a corporation wholly owned by the government. However 95 per cent of its excess earnings are returned to the policy-holders, who hold 'with-profit' policies. Thus *de facto* operation is akin to a mutual fund. Hence the issue of actuarily unfair pricing, does not arise, since any excessive pricing that results in excess income for the company is ploughed back to its policy-holders (who, it must be added are not shareholders). In doing so, there is an element of cross-subsidising that goes on, in the sense that the 'with-profit' policy-holders gain at the expense of (the minority) policy-holders who do not have with-profit policies. In the event that LIC becomes a true common stock company, correct pricing may become essential. There will emerge an important issue of addressing the interests of shareholders (who would want higher profits) and policy-holders, customers who would demand actuarily fair pricing. Moreover, in such a scenario, cross-subsidising across products will no longer be feasible.

Role of information technology: The business of selling life insurance requires assessing the profile of the customer and assigning the right policy. This process is facilitated by a database that is created in the course of a corporation's operations. With its huge network, LIC has a tremendous incumbent's advantage in being able to generate such a database. This business is completely driven by information technology, which can result in substantial productivity gains. LIC is a unique organisation involved in the selling of essentially one product on a massive scale. If it uses this network to offer other financial products such as pension plans, other long and short term savings instruments, various term insurance, it would have better utilised this vastly underutilised capacity.

Selling of Life Insurance through the postal network: The department of posts and telegraphs also provides some banking and insurance functions. Notable among these are the post office savings bank (POSB)[19] and postal life insurance (PLI).

PLI came into being on February 1, 1884 as a welfare measure for government employees. The scope of PLI was extended from time to time to other categories of employees. PLI benefits now extends to the employees of central and state governments, central and state public sector undertakings including banks, universities, local bodies and defence services. In 1994-95, PLI had around 21 lakh policies for the total sum assured of Rs 4,776 crore. PLI has a very low expense ratio.

The strategic advantage of an existing network of 1.5 lakh branches of the postal system can hardly be overemphasised. It is well known that the postal savings schemes generate much more deposits than rest of the banking sector. A strategic alliance between LIC and the department of posts for life insurance and other related products can lead to greater penetration as far as life insurance is concerned.

VII
Conclusion

In this article we have presented an overview of life insurance operations in India, and have identified the emerging strategic issues in light of liberalisation

and the impending private sector entry into insurance. The need for private sector entry has been justified on the basis of enhancing the efficiency of operations, achieving a greater density and penetration of life insurance in the country, and for a greater mobilisation of long-term savings for long gestation infrastructure projects. Introducing competition involves several regulatory issues and the role of the regulator has also been discussed here. In the wake of such coming competition, the government monopoly of LIC is a strong incumbent, and is in a position to take advantage of its wide reach and more than 40 years of experience. However, unless it specifically addresses the strategic issues such as changing demography and demand for pensions, demand for a wider variety of products including the delinking of savings and insurance, and having greater freedom in its investments, LIC may find it difficult to adapt to the liberalised scenario.

Notes

1 A simple mathematical device that explains why joint families would require less market insurance could be as follows. Imagine a joint family household of n earning individuals, whose income generation is given by independently (and say identically) fluctuating random variables x1 to xn The per capita income of this household is (x1 + x2 + .. + xn)/n which is much more stable (less variance) than all the individual x's. When such a household breaks up into n households, there is increased risk (greater variance) and hence a greater need to buy market insurance.

2 The implication of bundling insurance and saving into one contract is studied in Ahuja (1998)

3 The India Infrastructure Report (GOI 1996) estimates that the funds required for infrastructure investment could be in excess of US$ 100 billion over the next few decades.

4 Postal life insurance (PLI) came into being on February 1, 1884 as a welfare measure for government employees. The scope of PLI was extended from time to time to other categories of employees

5 For detailed historical account of life insurance in India and the Life Insurance Corporation see LIC (1970) and LIC (1991).

6 LIC's age of 40 is an appropriate milestone for introspection. George Bernard Shaw said that by 40 one is either a fool or a philosopher. As the LIC enters its fifth decade, its conduct can hardly be described as foolish. Indeed, it shows maturity and perhaps some introspection, but it is not guilty of being excessively philosophical. But of course, Shaw's quip was about people, not corporations

7 It should be mentioned that the LIC does not pay any explicit 'guarantee fee' to the government of India, which stands as guarantor to all policy-holders The five per cent rule may be seen as a proxy guarantee fee, although this interpretation is controversial, especially in light of severe government restrictions on LIC's investments

8 The returning of 95 per cent surpluses to policy-holders has distortionary effect in that, the 'with profit' policy-holders get cross subsidised by the 'without profit' policy-holders.

9 Outreville (1994) studies the relationship of various parameters such as literacy and incomes in a study of insurance in developing countries and reaches similar conclusions.

10 For some details on tax treatment of insurance in various countries including India see Soman (1997).

11 For more details on the role of the regulator see Ranade and Ahuja (1996b).

12 Some of these concerns have been analysed in Ranade and Ahuja (1996a) and Chitale (1997).

13 A detailed analysis of the US insurance industry is found in Wright (1992).

14 For more details on the Singapore life insurance business see Annual Report of the Insurance Commissioner (1995) and Lian (1996).

15 While the growth rates of premiums in developed countries are barely 5 per cent, in many developing countries the growth rate is almost 20 per cent (see Table 11).

16 See Outreville (1994) for an analysis of cross country experience of life insurance.

17 For some discussion of pension reforms, see Patel (1997) and Vittas (1995a and 1995c), and references therein.

18 The Insurance Reforms Committee, among other things, recommended greater freedom for investment of pension funds, exemption from taxes, and introduction of unit linked pension plans.

19 The banking activities of the post office is gauged by the fact that the POSB has a network of around 1.5 lakh post offices as on March 31, 1995, with an outstanding balance during 1994-95 through various savings schemes of Rs 78,908 crore. Mahila Samridhi Yojana scheme introduced in October 1993, in order to empower adult rural women financially, has generated Rs 81.2 crore in 84.4 lakh accounts as on March 31, 1995. During 1995-96, the department introduced many new value added schemes such as premium savings bank service in order to facilitate better access to cash to the account holders.

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Risks of Capital Account Convertibility

R H Patil

The experience of the east Asian countries has underscored the dangers of unregulated capital mobility so long as a country does not have the institutions to handle these flows efficiently.

ON the international trade front significant liberalisation has taken place during the post-war period. Quantitative as also tariff restrictions have come down dramatically during this period. As a result of its success the GATT got promoted into WTO which now encompasses trade in both commodities and services. In comparison to the tremendous strides achieved in the field of trade liberalisation, the progress on the IMF front appears to be relatively less spectacular despite the fact that a large number of its member countries have accepted full current accounts convertibility.

Although it is not in its original mandate that it should be working towards an eventual totally free capital mobility regime, the IMF during the last couple of years has been arguing in favour of a world that has dismantled national controls on capital movements. At the annual IMF-World Bank meeting held in 1997 at Hong Kong many spokespersons from the IMF and the World Bank had argued in favour of free mobility of capital across national borders. But at the recent annual meeting of the IMF-World Bank in 1998 at Washington the mood was quite different. Having seen the devastation caused by greater capital mobility, especially in east Asia, there was much less of a fervent appeal to move towards an era of capital accounts convertibility. Thus the earlier euphoria about the need for abolishing all controls on movement of capital across national borders is waning rapidly.

Logic of Capital Mobility

We need not dismiss the earlier plea of IMF in favour of capital mobility across national borders as being one more evidence of its policies being subjected to pressures from the developed western world and in particular the US which almost sets the tone of IMF policies in all important areas. A highly simplistic and uncharitable explanation for IMF's support of free capital flow to and from the middle income and developing countries may be that IMF is keen to facilitate greater control of MNCs on the productive resources of these countries. However, a more plausible reason for IMF's tilt towards capital mobility appears to be that unfettered capital mobility is perhaps as important and beneficial as free trade in goods and services.

During the last two decades different versions of free market economy have become popular in many parts of the world as government as an entity has failed to be equal to the promises it placed before the common citizen. The collapse of the communist regimes in the erstwhile USSR and the embrace of market economy by China and most of the east European countries have helped in increasing the attractiveness of the market economy approach in many other areas including international capital mobility. Although the extreme versions of the free market philosophy are rapidly going out of fashion, many sensible people are convinced or believe that the government as an entity has proved to be not as efficient as the market in allocating resources in several areas of economic activities. On a purely logical plane one can still argue persuasively that more efficiently run governments are better allocators of capital than the free markets. However, in real life situations neither totalitarian nor democratic regimes have been able to ensure emergence and continuity of efficiently run governments. It is primarily for this reason that market-oriented solutions are becoming increasingly popular in several parts of the world.

Ascendance of Market Economy

Along with introduction of many market-oriented domestic reforms several countries are granting freer access to inflow of international capital. One of the major attractions in adopting this policy is the access a country could have to the vast and growing pool of savings in the developed countries which have not been able to throw up enough opportunities for investments within their own borders. According to some estimates, the global tradable stock of financial assets including bonds and equities was well over $ 41 trillion as at end 1994. The stock of liquid financial assets is estimated to be expanding at about three times the rate of growth of the global real economy. In the developed world, since the stock of liquidity is growing very much more rapidly than the GDP, the major problem faced by the fund managers and the financial intermediaries like banks in these countries is one of deploying the funds efficiently at attractive rates. Although only a small part of the incremental pool of liquid capital is in search of better avenues of investments outside the developed economies, this pool is large enough for other countries that are willing to welcome the inflow of such capital.

The proposition that seems to have attracted the world bodies like IMF and IBRD is the tremendous benefit that the capital importing countries could derive by propelling their growth process. A regime of free capital mobility would simply mean flow of savings from a region where they are surplus to a region where they are in deficit. This point is of particular significance for two reasons. The concessional assistance from the multilateral institutions as also bilaterally from the rich countries is drying up fast. The affluent world has developed aid fatigue and as a result its propensity to direct assistance to several developing countries is either stagnating or declining continually. Unfortunately, the efficiency of aid utilisation has also declined very sharply in the developing countries because of the fact that most of the official assistance is directly given to the governments or governmental agencies which are noted to be universally inefficient in aid utilisation. This has also been one of the contributory reasons for the developed countries to turn away from extending official assistance to developing countries.

In most parts of the developing world it has been observed that the private sector has been able to utilise capital more efficiently than the public sector. The relative efficiency of the private sector in relation to that of the public sector is not necessarily across nations but within the boundaries of any one country. Despite all the handicaps from which the private sector may suffer it is able to utilise resources more efficiently for the simple reason that it cannot hope to get budgetary support to remain a going concern or viable indefinitely.

Importance of Commodity Sectors

Despite all the opening up of the world economy through continual trade liberalisation the proportion of aggregate global GDP entering into international trade cannot expand beyond certain

limits. It needs to be noted that the major part of the global income will continue to be generated locally in each country. It has been noted that on an average about 80 per cent of the global economy owes its existence to locally produced and consumed goods and services like retailing, public utilities, transport, food processing financial services, health care, etc.

In the early stages of development of most countries, the commodity sectors contribute a significantly large part of GDP. It is only at an advanced stage of economic development that the proportion of income contributed by the services sectors like financial services, education, law and order administration and information technology (all of which can be called as the non-commodity sectors) comes to account for a growing share of the GDP. Consequently, as a country reaches a mature stage of development the share of the GDP contributed by the commodity sectors (both manufacturing and agriculture) declines

It is for this reason that in the early stages of their development the developing countries require large amount of investible resources for investing in the commodity sectors and the input-intensive infrastructure sectors like power, road transport, ports, etc. If a country desires to grow at a rapid rate it needs large investible resources which only the developed countries that have surplus capital can provide. The policy framework of developing countries desiring to grow faster needs to facilitate inflow of foreign capital particularly into the commodity sectors (including such commercially viable infrastructures areas as power and telecommunication).

Capital Mobility

Flows of capital into developing countries are generally of three types, viz, portfolio equity, direct investment (with majority control) and loan capital (both long-term and short-term). These different types of foreign capital flows have varying impact on balance of payments, financial sector and the capital markets of the host country. The portfolio capital which comes by way of investments in equities and bonds floated on the market adds to the financial liquidity of the host country. Generally, annual limits are placed on the inflow of such portfolio investment by most countries to tackle the problem of destabilising flows. Foreign portfolio investors generally enjoy freedom in regard to entry and exit from the host country. Foreign investors' investment decisions are influenced by their risk-reward perception of the host country and the specific instruments in which they invest. It has been observed that portfolio capital is fickle and is subject to sudden outflows if market conditions in the host country turn adverse. Loan capital inflows materialise when the domestic entities (whether owned by the citizens or by foreign investors) decide to raise funds from abroad. These decisions are influenced by the costs of funds at home in relation to those from foreign sources. In many countries permission from the concerned authorities may be required regarding the quantum and maturity terms of such loans. A number of countries including India place separate annual limits on short- and long-term loans that all the domestic entities can borrow in each year.

Among the three forms of foreign capital inflows the direct investment inflows are noted to be generally stable and a long-term nature. Such investment inflows are influenced by long-term country-cum-industry rates of returns. Since such capital inflows are in 'real economic activities' of the host country the investors are fully aware that the actual rates of return materialise only after the investment proposals fructify and start yielding after their gestation periods.

Direct investment flows are governed primarily by long-term return considerations and are therefore much less volatile. Direct investments also do not have the destablising impact which the hot money type portfolio investments have. Countries keen for integrating their economies into the global economy should therefore be more inclined, in the early stages of their development, to welcome direct investment before they ever open up their capital accounts to foreign investors.

Recent East Asian Experience

When countries decide to throw their doors open for inflow of foreign capital it has been observed that during the early years it is the portfolio type of foreign capital that floods in. In any case the inflow of capital in the form of bilateral official or multilateral assistance does not increase merely because a country has decided to remove barriers against inflow of foreign capital. The level of official aid inflows is mainly influenced by the nature of existing international relationships that any country cultivates over time. Further, the foreign direct capital inflows take time to fructify as potential investors have to identify bankable projects, local joint venture partners (where found necessary) and receipt of various approvals of the host government authorities. Portfolio capital on the other hand is more mobile and can get into the country through the stock exchange route, etc. In this context it would be highly rewarding to draw lessons from the recent experience of the east Asian countries (EACs) that are passing through a very difficult phase since mid-1997. It appears that major source of the trouble these countries are now facing has been due to their highly liberal approach to foreign capital

The experience of the EACs is particularly interesting because of the fact that only a few years ago these countries were hailed as models particularly for the developing countries that are keen to have rapid economic development. Before the EACs received massive inflows of foreign capital they had undergone an interesting phase of macro-economic reforms during the mid-1980s. A crucial component of the reform process in these countries included a real exchange rate target that was designed to achieve strong export competitiveness. Given their size and resource endowments EACs are obliged to adopt an export-led growth strategy. They introduced structural reforms to stimulate rapid growth of tradable goods. On the exchange rate side they adopted policies that led to continual devaluation of currencies that more than compensated relative levels of domestic inflation. Simultaneously, they maintained strict fiscal discipline to eventually achieve budgetary surplus. As a result public sector debt to GDP ratios fell in almost all these countries.

The combined impact of the depreciating effective exchange rate and tight fiscal policy led to relative price stability thereby enhancing the attractiveness of the EACs for foreign investors. During the end of 1980s and up to the middle of the current decade they were able to attract sizeable inflows of foreign capital. During the early years when the capital inflows grew year after year these countries had a comfortable time as the large capital inflows gave them considerable latitude in their policy formulation. Since these countries already had very high savings rates the available funds for investment grew rapidly because of the large inflows of foreign capital. This phenomenon lulled these countries to adopt policies which did not encourage more efficient use of capital. Many investors did not bother to give due attention to such important aspects as prudent asset liability management strategies. In short, the EACs did not effectively meet the major challenges especially posed by the large inflows of foreign portfolio capital.

The experience of the EACs abundantly proves that unless a host country's institutional structure, regulatory policy framework and capital market efficiency are sufficiently strong, it will face serious difficulties in integrating itself with global financial markets. It has now become obvious that most of the EACs were just not well prepared to face the problems that global economic integration posed to them. The series of economic policy reforms introduced by these countries in cleaning up their markets and institutions were no doubt in the right direction. But a high level of preparedness was needed on several other fronts before the whole economy was ready to absorb the shocks that entrants into the global economic system usually are subjected to in the transitional phase.

Financial Sector Weaknesses

Among all the various sets of factors that have led to the major crisis being faced by the EACs, one major area in respect of which these countries were relatively more vulnerable relates to the weakness that are observed in respect of their financial sector. The problems faced by the financial sector get compounded if there are also weak unsound non-bank financial companies (NBFCs) that compete with the rest of the financial sector entities.

Like in India the EACs also had their own versions of tightly regulated regimes with many of these countries having directed lending for some of the sectors accompanied by subsidised lending rates. They used to tightly regulate entry of new banking institutions as also expansion of the existing ones. They also used to control lending and deposit rates. After this tightly regulated system was dismantled by the EACs their banks lost the high degree of comfort they had enjoyed in the past. In some sense the banks lost a great deal as their franchise value declined with the ushering in of a free competitive regime. Since deregulation was brought about speedily the degree of competition to the banks from other players increased significantly. Competition to the banks also increased from newly set up banks, expansion of branches by the existing banks as also from the NBFCs. Banks lost good business with domestic borrowers getting freedom to borrow directly from overseas financial centres. Attracted by lower interest rates the better credit rated customers started moving away from domestic banks to foreign currency loans from international financial centres. Consequently, the portfolio quality of local banks deteriorated considerably as the proportion of loans to the smaller and less creditworthy customers in the total portfolio increased.

The banks and the NBFCs were not well prepared to face intense competition for another reason. Before introducing deregulation the authorities in these countries had done a cleaning up job. In regard to the banks and the NBFCs, these countries had faced a financial crisis earlier. To meet the situation a number of bail-outs were worked out for both banks and NBFCs. But all bail-out attempts always create moral hazard problem. Whenever bail-outs are carried out the culprit managements should be punished. Invariably this was not done in the EACs perhaps partly for the reason that the primary cause for the financial crisis was the authorities themselves who worked out the bail-out later. Such things do happen in a regime of directed and behest lending. But in any case it would have been appropriate to restructure the managements of the bailed-out institutions and banks so that new managements have the required skills for facing a competitive situation more effectively. Secondly, another serious problem faced by the financial sector was that the process of bail-out and restructuring was not carried to its conclusion by strengthening the capital base of the banks and NBFCs. Since a rapid transition to a deregulated regime puts considerable pressure on the local banks and institutions their capital base should be much higher than what is usually prescribed by the

well-known international norms about capital adequacy.

Risks of Foreign Portfolio Capital

Since the foreign portfolio capital is the fastest to respond to any policy changes its flow invariably is significantly higher during the early years soon after capital controls are removed. The EACs were no exception to this. Large amounts of money flowed into these countries through the stock exchange route. In the early years fund managers were cautious to place their investment after proper equity research analysis. But once money starts flowing into the market in a big way the mechanism of self-fulfilling prophecies starts working. This attracts more investments and the fund managers get thrilled as the NAV of their portfolio starts increasing. After some time fund managers become complacent and the quality of their due diligence declines. This leads to a situation of bubbles and bursts.

The advantages of interest rate arbitrage also encouraged a large inflow of loan capital into the EACs. Since all these countries managed 'dirty floats' (that is by managing their exchange rates within well defined bands) banks as also other borrowers raised low interest foreign currency loans, converted these into domestic currency for on-lending them to the local entities at higher rates. The bulk of such borrowed money was of a short-term nature. Given the real estate boom in these countries a large proportion of this was lent to/invested in real estate. But as the crisis developed all the foreign currency borrowers faced serious problem soon after the unsustainable property boom turned into a burst. When the lenders started recalling their loans or stopped renewing the maturing loans there was a near panic in the foreign exchange markets. It is mainly for this reason that currencies of these countries depreciated sharply which many keen observers of the scene have described as being an over-reaction or over-correction.

Role of Hedge Funds

Since the breakdown of the Bretton Woods system world financial markets have become increasingly volatile. The daily turnover in the foreign currency markets is estimated to be around \$ 1,300 billion. It means that currency trade is several multiples of the underlying real global economy that is subject to cross border flows. No individual country is in a position to face the onslaught of large speculative flows against its currency. Whenever the market perceives that the parity of a currency is out of alignment with its fundamentals there will be speculative attacks against that currency. Since most of the currency traders are still not unanimous as to which factors determine external parity of a currency it is possible that unhealthy speculation may result in the currency of a country that is coming under pressure. Assessment of right level of a currency is still an art and therefore there could be wrong judgments.

One may argue that those who guess wrongly will be punished by the market. But recent history has shown that speculators are willing to suffer such losses once in a while if they are able to guess correctly in a majority of the cases. A new breed of speculators has emerged during the last decade who take big speculative bets. These new breed of speculators are the hedge funds who have come under close scrutiny after the debacle of the much publicised hedge fund called long term capital management (LTCM). The activities of hedge funds are unpredictable. They operate secretively and do not provide meaningful information about their operations even to the investors who provide them funds. The hedge funds often behave as predators, always in search of an attractive and weak prey. Hedge funds move their funds from one country to the other with tremendous speed in search of profits or to minimise their losses in the host country.

Hedge funds normally try to derive maximum benefit from market imperfections that provide a type of 'arbitrage opportunities'. They continually trade in currencies or financial assets globally to derive maximum benefit from the real or perceived mispricings. There is a major qualitative difference between mutual funds which are tightly regulated in their home countries even when they invest their funds globally and hedge funds which are least governed. The mutual funds raise monies from innumerable investors whose interests the regulators are keen to protect. The hedge funds raise resources from relatively wealthy investors who are better informed or are willing to risk their resources with the hedge funds which generally adopt risky investment strategies. A number of hedge funds speculate in exchange rates of countries which they perceive to be vulnerable. George Soros made over a billion dollars by speculating in the exchange parity of the pound sterling. Hedge funds are therefore generally viewed with distrust by most of the developing countries. The Malaysian prime minister, Mahathir Mohammed, is very bitter about the hedge funds because of the havoc played by them with the Malaysian economy.

The danger from the hedge funds is not so much because of the funds they raise from investors but the very high leverage with which they play their game. LTCM got into serious difficulties because it had balance sheet exposure of well over \$ 100 billion on own funds of less than \$ 4 billion. Over and above this its off-balance sheet exposure in the from of derivative instruments was close to \$ 1,000 billion. LTCM had borrowed from some of the world's top commercial and investment banks.

The destabilising role played by the hedge funds recently once again came to light when the Japanese yen came under the attack of the hedge funds. It is largely because of the onslaught of the hedge funds that many were predicting a large depreciation of the yen to 180 yen per US dollar by early March 1999 These experts were in for a rude shock when the hedge funds could not sustain the costs they were incurring in their operations and were forced to unwind their positions. The yen, which had depreciated to 147 per US dollar at one stage has risen sharply to its current level of 116 yen to the dollar. While it may be true that many hedge funds may have incurred losses in their speculative attack on the Japanese yen, they stand to gain substantial amounts whenever they gang up against currencies of several other countries. One should not overlook the damage the hedge funds are inflicting on the global economic system by causing wild exchange rate fluctuations. So long as the hedge funds are not as tightly regulated as ordinary mutual funds it would be risky to talk about free capital mobility.

Conclusion

The risks of unhindered capital mobility appear to be high so long as a country is not in a position to handle these flows efficiently. Among the three major types of flows, the advantages of DFI are clear as such flows can be directed in the desired areas as per the defined policy frame of a country. These flows are not volatile and therefore do not lead to unstable exchange rates. They are absorbed easily since the bulk of the inflows for a country like India would be in the form of imports of capital goods, technical know how, etc. Portfolio capital flows are likely to be destabilising as they are subject to sudden and often abrupt inflows/outflows. Such capital flows put unnecessary pressures on the exchange rate and money supply management policies. If the inflows cannot be managed efficiently portfolio capital is likely to be burdensome for the economy as debt servicing costs have to be borne by the host economy.

Money, Banking and Finance

EPW Research Foundation

WITH a view to complementing the various research contributions carried in this special issue, this section presents a set of 17 statistical series covering key aspects of the broad theme of 'money, banking and finance'. Considering the massive, detailed and complex nature of data sets available on the subject, the presentation here has had to be selective, bringing out the essential features of monetary and financial sector operations. As the scheduled commercial banks still constitute the most dominant component of the financial system, they occupy the maximum space in this statistical set.

Reflecting the rising proportion of the non-agricultural sectors in gross domestic product, as also the increasing sophistication in commercial transactions and improved banking habit, the share of currency in broad money (M_3) has steadily declined over the years, which is more sharply brought out in the concerned incremental ratios. Amongst the components of M_3, the fastest growth has been occurring in time deposits with banks, followed by demand deposits and currency in that order, that is, in the descending order of their liquidity. Divergent annual rates of growth in these components have been such as to give some stability to the composite M_3 growth, more so when fortnightly averages of M_3 are considered for individual years. As brought out by the RBI's *Working Group Report on Money Supply* (June 1998), the annual averages of M_3 growth based on year-end and fortnightly averages have remained more or less the same (17.5 per cent and 17.3 per cent) for the decade 1988-89 to 1997-98, but the yearly rates of increases have varied from 13.7 per cent to 22.3 per cent based on year-end data with a coefficient of variation of 15.6 per cent and from 15.7 per cent to 19.8 per cent based on average data with a coefficient of variation of 7.7 per cent (ibid, p 53). Interestingly, long-term monetary expansion has steadfastly remained at about 17.5 per cent, though the corresponding term trends (say, decadal rates) in related macro variables such as real economic growth and inflation rate have fluctuated significantly.

In factors influencing money supply, vast fluctuations are noticed in annual trends of individual components. Key revelations are: (i) the rates of increase in banks' investment in government securities have generally been higher in the post-reform period than in the comparable preceding period; (ii) banks' credit to commercial sector has not only grown at a slower pace during the recent years but has also shown sharp fluctuations in its annual expansion; and (iii) consequently, the proportion of the banks' commercial credit in aggregate domestic credit has tended to decline, the decline being the sharpest during the current fiscal year 1998-99 so far (from about 56.7 per cent to 54.5 per cent). Build-up of foreign currency assets has also contributed to monetary expansion, but the figures shown in monetary data in rupee terms have bulged partly also because of the sizeable depreciation of the rupee. The revaluation so effected of the foreign assets does not add to money supply; the book gains so made are transferred to the Exchange Fluctuation Reserve account, the balances in which constitute a part of the RBI's net non-monetary liabilities which have also grown sizeably.

The RBI's system of Basic Statistical Returns on banking statistics generate a vast set of aggregative data on different dimensions of the operations of scheduled commercial banks which are presented in Tables 2 to 11. The key revelations brought out by them are: (i) a rapid decline in the share of rural branches in the total number of bank branches, as also in aggregate deposits and credit, along with a sizeable rise in the share of metropolitan branches; (ii) a steady decline in the proportion of deposits held by resident individuals with all categories including farmers losing some ground but institutional deposits showing a rise; (iii) over 38 per cent of individual depositors still preferring to hold near one-third of fixed deposits in long maturity deposits of three years and above; (iv) further widening of the disparities in credit-deposit ratios amongst different states and regions in the post-reform period; (v) only about 52 per cent of agricultural credit coming from rural branches, while even that size of farm credit constituting merely 39 per cent of total credit given by rural branches; and (vi) a distinct fall in the number and proportion of small loan accounts in the recent period.

A glaring aspect of credit distribution has been the steady fall, in the post-reform period, in the relative proportion of bank credit extended in favour of the 'household sector' which essentially comprises farmers and other individuals and unincorporated enterprises along with small-size loans; this sector's share in total bank credit, which had reached a peak of 58.3 per cent in March 1990, had steadily slipped to 51.1 per cent by March 1996. The incremental expansion in bank credit during the quinquennium 1991 to 1996 has not only been the smallest for the 'household sector' (82.5 per cent as 162-175 per cent in the preceding two five-year or six-year periods), it has also been considerably smaller than that for private corporate sector (150 per cent) or for public sector (93 per cent). This broad picture is corroborated by many other trends in the distribution of bank credit in the recent period. First, there has been a decline in the share of bank credit rendered by rural and semi-urban branches together. Secondly, the relative proportions of credit extended to agriculture (15.9 per cent in March 1990 but 11.3 per cent in March 1996) and small-scale industries (12.4 per cent and 10.7 per cent) have experienced a distinct fall Thirdly, in the size distribution of bank loans, the share of small-size loans with credit limit of Rs 25,000 or less has dwindled from 22 per cent in March 1991 to 14.2 per cent in March 1996. Finally, there has occurred a sharper decline in the credit-deposit ratios of underdeveloped regions and states such as the north-eastern region (from 54.9 per cent in March 1990 to 35.5 per cent in March 1996), the eastern region (53.3 per cent to 47 per cent) and within the south-region, say, Kerala (from 63.1 per cent to 44.5 per cent).

In the relative performance of individual bank groups, there are many changes taking place though on expected lines. First, there has occurred a steady fall in the market share of 19 nationalised banks in the industry's aggregate deposits and credit, which has been essentially captured by new private sector banks; the market share of the State Bank group has generally remained intact. Secondly, as a result of the sizeable non-deposit resources com-

manded by the State Bank of India, the group's share in total assets (30.7 per cent) is higher than its share in aggregate deposits (27.4 per cent). The assets share of nationalised banks (52.5 per cent) is much lower than their deposit share (54.8 per cent), though this gap has narrowed in recent years. Thirdly, the deposit base of foreign banks has generally remained unchanged at about 7 per cent of the industry total, but their share in bank credit has slightly improved as a result of their reliance on non-deposit resources. Among private sector banks, it is the group of 10 newly set-up private banks which have competed away banking business from the nationalised banks. Finally, the nationalised banks continue to shoulder heavier responsibilities of social banking as a result of which their share in total bank branches or that in total bank employment has remained unchanged at 64 per cent and 60 per cent, respectively. However, with the foreign banks having been made to achieve certain targets in rendering priority sector advances, the proportion of such priority sector advances given by the nationalised banks has tended to decline, though not in relation to their total advances. Besides, the nationalised banks seem to have shown a degree of competition with the State Bank of India which is reflected in a rise in their share of public sector advances.

There are two other characteristic features of the financial sector developments in the recent past which are noteworthy. First, the outstanding stock of marketable debt instruments – sovereign as well as non-sovereign – have grown rather rapidly in recent years. This outcome came about as a result of two developments in the post-reform period – a sharp increase in the dependence of the central government on market borrowings, and a rising resort to bonds and other debt instruments by public sector undertakings as well as private sector corporate bodies. The liberalisation of interest rates on debt instruments, the withdrawal of budgetary and SLR-supported funds for public financial institutions and PSUs, and the depression in the equity market prompting corporate bodies to resort to the debt market primarily through the private placement route bypassing the SEBI requirement of credit rating, have been some of the factors responsible for providing the stimulus to the debt market. Emphasis on treasury operations by banks and FIs has given an added impetus to turnover in the debt market.

Estimates of outstanding sovereign debt have grown from Rs 176,770 crore at the end of March 1994 to Rs 287,750 crore as at the end of March 1998. Similarly, the stock of commercial debt has jumped from Rs 96,000 crore to Rs 136,130 crore, respectively. However, despite the apparently vast increase in the stock of marketable debt and despite the emergence of the debt market as a visible component of the financial system, the outstanding of debt instruments in relation to GDP or to industrial output has not grown, which probably explains the insufficiency of finance for rapid economic growth.

The second aspect of the financial sector development relates to the diversification of the financial system and the relatively faster growth of non-banking financial institutions. Again, interestingly as between banks and public financial institutions, much of the diversification had taken place during the 1980s whereas the 1990s have shown no noticeable change. Thus, the share of banks in aggregate financial assets had slipped from 73.8 per cent in March 1981 to 65.5 per cent in March 1991 with a corresponding rise in the share of FIs from 26.2 per cent to 34.5 per cent. But, subsequently, the relative shares remained at 64 per cent and 36 per cent, respectively, up to March 1998. Even the inclusion of NBFCs is unlikely to make any significant difference to this overall trend.

Table 1 (A): Money Stock and Key Components: 1970-71 to 1998-99

Last Friday/ Last Reporting Friday/ End-March	Components of Money Stock (Rupees crore): Currency with the Public: Currency in Circulation	Cash with Banks	Total (2-3)	'Other' Deposits with the RBI	Demand Deposits with Banks	Time Deposits with Banks	Narrow Money (M1) (4+5+6)	Broad Money (M3) (7+8)	Reserve Money (Rupees crore): Reserve Money (M0) (2+5+11)	Bankers' Deposits with the RBI	End Period Ratios: Currency to M3 (Per Cent)	Money Multiplier (M3/RM) (Multiples)	Incremental Ratios: Currency to M3 (Per Cent)	Money Multiplier (M3/RM) (Multiples)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1970-71	4557	186	4371	60	2943	3646	7374	11020	4822	205	39.7	2.3	-	-
1971-72	5006	205	4801 *9.8*	80	3442 *17.0*	4370 *19.9*	8323 *12.9*	12693 *15.2*	5382 *11.6*	296	37.8	2.4	25.7	3.0
1972-73	5680	242	5438 *13.3*	58	4204 *22.1*	5313 *21.6*	9700 *16.5*	15013 *18.3*	6033 *12.1*	295	36.2	2.5	27.5	3.6
1973-74	6595	274	6321 *16.2*	53	4826 *14.8*	6424 *20.9*	11200 *15.5*	17624 *17.4*	7273 *20.6*	625	35.9	2.4	33.8	2.1
1974-75	6701	354	6347 *0.4*	75	5553 *15.1*	7574 *17.9*	11975 *6.9*	19549 *10.9*	7604 *4.6*	828	32.5	2.6	1.4	5.8
1975-76	7053	348	6705 *5.6*	77	6543 *17.8*	9155 *20.9*	13325 *11.3*	22480 *15.0*	7808 *2.7*	678	29.8	2.9	12.2	14.4
1976-77	8288	415	7873 *17.4*	121	8030 *22.7*	11757 *28.4*	16024 *20.3*	27781 *23.6*	9798 *25.5*	1389	28.3	2.8	22.0	2.7
1977-78	9152	521	8631 *9.6*	70	5687 *-29.2*	18518 *57.5*	14388 *-10.2*	32906 *18.4*	10941 *11.7*	1719	26.2	3.0	14.8	4.5
1978-79	10835	604	10231 *18.5*	166	6895 *21.2*	22820 *23.2*	17292 *20.2*	40112 *21.9*	14082 *28.7*	3081	25.5	2.8	22.2	2.3
1979-80	12382	728	11654 *13.9*	391	7955 *15.4*	27226 *19.3*	20000 *15.7*	47226 *17.7*	16573 *17.7*	3800	24.7	2.8	20.0	2.9
1980-81	14307	881	13426 *15.2*	411	9587 *20.5*	32350 *18.8*	23424 *17.1*	55774 *18.1*	19452 *17.4*	4734	24.1	2.9	20.7	3.0
1981-82	15411	937	14474 *7.8*	168	10295 *7.4*	37815 *16.9*	24937 *6.5*	62752 *12.5*	20998 *7.9*	5419	23.1	3.0	15.0	4.5
1982-83	17639	980	16659 *15.1*	186	11690 *13.6*	44649 *18.1*	28535 *14.4*	73184 *16.6*	23110 *10.1*	5285	22.8	3.2	20.9	4.9
1983-84	20643	1040	19603 *17.7*	291	13504 *15.5*	53127 *19.0*	33398 *17.0*	86525 *18.2*	28994 *25.5*	8060	22.7	3.0	22.1	2.3
1984-85	23875	1203	22672 *15.7*	595	16648 *23.3*	63018 *18.6*	39915 *19.5*	102933 *19.0*	35216 *21.5*	10746	22.0	2.9	18.7	2.6
1985-86	26524	1465	25059 *10.5*	289	18747 *12.6*	75299 *19.5*	44095 *10.5*	119394 *16.0*	38165 *8.4*	11352	21.0	3.1	14.5	5.6
1986-87	29913	1531	28382 *13.3*	309	22825 *21.8*	90116 *19.7*	51516 *16.8*	141632 *18.6*	44808 *17.4*	14586	20.0	3.2	14.9	3.3
1987-88	35122	1563	33559 *18.2*	397	24599 *7.8*	105720 *17.3*	58555 *13.7*	164275 *16.0*	53489 *19.4*	17970	20.4	3.1	22.9	2.6
1988-89	40119	1790	38329 *14.2*	694	27763 *12.9*	126707 *19.9*	66786 *14.1*	193493 *17.8*	62958 *17.7*	22145	19.8	3.1	16.3	3.1
1989-90	48286	1986	46300 *20.8*	598	34162 *23.0*	149890 *18.3*	81060 *21.4*	230950 *19.4*	77591 *23.2*	28707	20.0	3.0	21.3	2.6
1990-91	55282	2234	53048 *14.6*	674	39170 *14.7*	172936 *15.4*	92892 *14.6*	265828 *15.1*	87779 *13.1*	31823	20.0	3.0	19.3	3.4
1991-92	63738	2640	61098 *15.2*	885	52423 *33.8*	202643 *17.2*	114406 *23.2*	317049 *19.3*	99505 *13.4*	34882	19.3	3.2	15.7	4.4
1992-93	71326	3053	68273 *11.7*	1313	54480 *3.9*	242759 *19.8*	124066 *8.4*	366825 *15.7*	110779 *11.3*	38140	18.6	3.3	14.4	4.4
1993-94	85396	3095	82301 *20.5*	2525	65952 *21.1*	283629 *16.8*	150778 *21.5*	434407 *18.4*	138672 *25.2*	50751	18.9	3.1	20.8	2.4
1994-95	104681	4000	100681 *22.3*	3383	88193 *33.7*	339169 *19.6*	192257 *27.5*	531427 *22.3*	169282 *22.1*	61218	18.9	3.1	18.9	3.2
1995-96	122569	4311	118258 *17.5*	3344	93233 *5.7*	389172 *14.7*	214835 *11.7*	604007 *13.7*	194457 *14.9*	68544	19.6	3.1	24.2	2.9
1996-97	137217	5130	132087 *11.7*	3194	105334 *13.0*	461233 *18.5*	240615 *12.0*	701848 *16.2*	199985 *2.8*	59574	18.8	3.5	14.1	17.7
1997-98	150823	5641	145182 *9.9*	3604	118436 *12.4*	558167 *21.0*	267222 *11.1*	825389 *17.6*	226233 *13.1*	71806	17.6	3.6	10.6	4.7
Apr	143581	4442	139139 *10.8*	3426	100358 *15.4*	470926 *18.8*	242923 *11.5*	713849 *16.2*	200727 *3.4*	53720	19.5	3.6	13.6	15.1
May	148603	4823	143780 *11.9*	3454	97702 *16.2*	474757 *19.2*	244936 *12.4*	719693 *16.8*	208479 *8.2*	56422	20.0	3.5	14.8	6.5
Jun	149370	5058	144312 *13.5*	5198	100668 *18.5*	479400 *18.1*	250178 *14.3*	729579 *16.8*	208810 *8.2*	54242	19.8	3.5	16.3	6.6
Jul	147880	4811	143069 *14.5*	5448	96931 *12.7*	487104 *18.4*	245448 *13.6*	732552 *16.8*	206284 *9.9*	52956	19.5	3.6	17.2	5.6
Aug	142240	4838	137402 *13.6*	4122	97011 *10.9*	495426 *18.8*	238535 *11.4*	733961 *16.3*	202308 *9.8*	55946	18.7	3.6	15.9	5.7
Sept	139915	4633	135282 *13.0*	4134	104389 *13.8*	507670 *19.1*	243804 *12.1*	751474 *16.7*	202490 *10.0*	58441	18.0	3.7	14.4	5.9
Oct	145505	4964	140541 *13.7*	3599	100990 *14.4*	513721 *20.2*	245130 *11.8*	758851 *17.4*	207378 *9.4*	58274	18.5	3.7	15.1	6.3
Nov	149149	5016	144133 *11.7*	5049	99982 *15.6*	517365 *19.6*	249164 *12.3*	766529 *17.1*	206331 *8.1*	52133	18.8	3.7	13.5	7.3
Dec	149013	4627	144386 *11.6*	4325	102406 *16.7*	519802 *18.8*	251117 *13.3*	770918 *16.9*	211590 *11.3*	58352	18.7	3.6	13.4	5.2
1998-99														
Apr	159751	5048	154703 *11.2*	2506	115848 *15.4*	564607 *19.9*	273057 *12.4*	837664 *17.3*	216495 *7.9*	54238	18.5	3.9	12.6	7.9
May	164869	5451	159418 *10.9*	2491	114380 *17.1*	569725 *20.0*	276289 *12.8*	846014 *17.6*	226454 *8.6*	59094	18.8	3.7	12.4	7.0
Jun	164043	5945	158098 *9.6*	4409	112053 *11.3*	581237 *21.2*	274560 *9.7*	855797 *17.3*	229885 *10.1*	61433	18.5	3.7	10.9	6.0
Jul	156102	5593	150509 *5.2*	4330	114792 *18.4*	592303 *21.6*	269631 *9.9*	861934 *17.7*	224844 *9.0*	64412	17.5	3.8	5.8	7.0
Aug	155508	5538	149970 *9.1*	4756	111225 *14.7*	616754 *24.5*	265951 *11.5*	882705 *20.3*	222389 *9.9*	62125	17.0	4.0	8.4	7.4
Sept	156631	5194	151437 *11.9*	3773	114555 *9.7*	625953 *23.3*	269765 *10.6*	895718 *19.2*	225058 *11.1*	64654	16.9	4.0	11.2	6.4
Oct	165189	5724	159465 *13.5*	3566	115669 *14.5*	636375 *23.9*	278699 *13.7*	915074 *20.6*	237956 *14.7*	69201	17.4	3.8	12.1	5.1
Nov	162596	5345	157251 *9.1*	3658	115604 *15.6*	639639 *23.6*	277981 *11.6*	917620 *19.7*	239929 *16.3*	73773	17.1	3.8	8.7	4.5

Figures in italics are percentage variations over the comparable period of the previous year.

Table 1(B): Sources of Money Stock: 1970-71 to 1998-99

Last Friday/ Last Reporting Friday/ End-March	Sources of Money Stock (Rupees Crore)															End-Period Ratio of Bank Credit to Comm Sector as Per Cent of Domestic Credit
	Net Bank Credit to Govt (3+4+5)	Net RBI Credit to Central Govt	Net RBI Credit to State Govt	Other Bankers' Investments in Govt Securities	Bank Credit to Commercial Sector (7+8)	RBI Credit to Commercial Sector	Other Bankers' Credit to Commercial Sector	Net Foreign Exchange Assets of the Banking Sector (10+11)	Net Foreign Exchange Assets of the RBI	Net Foreign Exchange Assets of Other Banks	Government's Currency Liabilities to Public	Net Non-monetary Liabilities of Banking Sector (14+15)	Net Non-monetary Liabilities of RBI	Net Non-monetary Liabilities of Other Banks (Residual)	RBI's Gross Claims on Banks	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1970-71	5455	3667	333	1455	6522	132	6390	551	530	21	384	1892	866	1026	642	54.5
1971-72	6625	4249	621	1755 *20.6*	7363 *12.9*	232	7131 *11.6*	619	608	11	412	2326	1271	1055	531	52.6
1972-73	7976	5461	235	2280 *29.9*	8762 *19.0*	266	8496 *19.1*	583	569	14	457	2765	1435	1330	480	52.3
1973-74	8939	6092	368	2479 *8.7*	10791 *23.2*	560	10231 *20.4*	663	661	2	502	3271	1641	1630	731	54.7
1974-75	9999	6620	501	2878 *16.1*	12730 *18.0*	663	12067 *17.9*	414	369	45	531	4125	2061	2064	981	56.0
1975-76	10629	6331	593	3705 *28.7*	15614 *22.7*	734	14880 *23.3*	939	924	15	556	5258	2645	2613	1315	59.5
1976-77	11804	7147	615	4042 *9.1*	18851 *20.7*	898	17953 *20.7*	2529	2599	-70	568	5971	3433	2538	1404	61.5
1977-78	13727	6887	757	6083 *50.5*	21222 *12.6*	954	20268 *12.9*	4445	4532	-87	593	7081	3708	3373	926	60.7
1978-79	15930	9077	339	6514 *7.1*	25532 *20.3*	1250	24282 *19.8*	5338	5431	-93	603	7291	3735	3556	1117	61.6
1979-80	20014	11727	678	7609 *16.8*	31011 *21.5*	1546	29465 *21.3*	5343	5388	-45	592	9734	4558	5176	1200	60.8
1980-81	25718	15278	1165	9275 *21.9*	36641 *18.2*	1700	34941 *18.6*	4730	4775	-45	618	11933	5360	6573	1276	58.8
1981-82	30633	18486	1954	10193 *9.9*	43462 *18.6*	2044	41418 *18.5*	2768	2706	62	657	14768	6522	8246	1673	58.7
1982-83	35257	21853	970	12434 *22.0*	51162 *17.7*	1925	49237 *18.9*	1828	1729	99	682	15745	6074	9671	2025	59.2
1983-84	40642	25802	1008	13832 *11.2*	60726 *18.7*	2380	58346 *18.5*	1646	1624	22	720	17209	5311	11898	2771	59.9
1984-85	50343	31857	2493	15993 *15.6*	70953 *16.8*	2752	68201 *16.9*	3134	2899	235	778	22275	8737	13538	3174	58.5
1985-86	58321	38047	631	19643 *22.8*	82803 *16.7*	3052	79751 *16.9*	3872	3741	131	939	26541	10707	15834	2462	58.7
1986-87	72020	45138	1147	25735 *31.0*	94741 *14.4*	3394	91347 *14.5*	4815	4621	194	1192	31136	13444	17692	2760	56.8
1987-88	84370	51697	990	31683 *23.1*	107487 *13.5*	3790	103697 *13.5*	5672	5416	256	1380	34634	14225	20409	4441	56.0
1988-89	96475	58200	1415	36860 *16.3*	127882 *19.0*	5524	122358 *18.0*	6800	6201	599	1475	39139	16936	22203	7079	57.0
1989-90	117151	72013	1670	43468 *17.9*	151704 *18.6*	6349	145355 *18.8*	6818	6068	750	1555	46278	17536	28742	7472	56.4
1990-91	140193	86758	2090	51345 *18.1*	171769 *13.2*	6342	165427 *13.8*	10581	7983	2598	1621	58336	27022	31314	10007	55.1
1991-92	158263	92266	1750	64247 *25.1*	187993 *9.4*	7260	180733 *9.3*	21226	18838	2388	1704	52137	27415	24722	5102	54.3
1992-93	176238	96523	1926	77789 *21.1*	220135 *17.1*	6220	213915 *18.4*	24443	22647	1796	1824	55815	28246	27569	9885	55.5
1993-94	203918	96783	2517	104618 *34.5*	237774 *8.0*	6445	231329 *8.1*	54612	51422	3190	1990	63887	26037	37850	5552	53.8
1994-95	222419	98913	2565	120941 *15.6*	292724 *23.1*	6593	286131 *23.7*	79032	74720	4312	2379	65127	29358	35769	13470	56.8
1995-96	257778	118768	2581	136429 *12.8*	344648 *17.7*	6855	337793 *18.1*	82141	74092	8049	2503	83063	32296	50767	21955	57.2
1996-97	288620	120702	3479	164439 *20.5*	376307 *9.2*	6247	370060 *9.6*	105496	94817	10679	2918	71493	35183	36310	7005	56.6
1997-98	330619	133616	1543	195460 *18.9*	432190 *14.9*	8186	424004 *14.6*	126569	115890	10679	3120	67109	43219	23890	7096	56.7
Apr	298880	122177	1209	175494 *28.5*	374456 *9.7*	6938	367518 *9.7*	106211	95532	10679	2952	68650	34030	34620	5947	55.6
May	303405	127417	105	175883 *27.5*	373496 *10.4*	7155	366341 *10.4*	110077	99398	10679	2994	70279	34347	35932	5758	55.2
Jun	307775	124740	212	182823 *30.2*	373866 *10.1*	7151	366715 *10.1*	113934	103255	10679	3025	69022	34881	34141	5307	54.8
Jul	313103	123713	290	189100 *29.7*	377570 *10.3*	7731	369839 *10.1*	115965	105286	10679	3062	77149	39012	38137	5213	54.7
Aug	306625	110447	170	196008 *31.2*	377474 *11.7*	7800	369674 *11.5*	119924	109245	10679	3098	73234	33792	39442	5338	55.2
Sept	303640	112971	723	189946 *26.1*	381147 *10.7*	7544	373603 *10.5*	117351	106672	10679	3103	53767	34187	19580	5663	55.7
Oct	315070	114638	975	199457 *31.7*	386621 *11.4*	7608	379013 *11.2*	119388	108709	10679	3107	65334	33583	31751	5925	55.1
Nov	318555	118282	1031	199242 *29.2*	388129 *11.3*	7913	380216 *11.0*	118501	107822	10679	3112	61769	37463	24306	5634	54.9
Dec	321870	127894	1103	192873 *23.6*	392157 *11.3*	7750	384407 *11.1*	117284	106605	10679	3116	63509	41540	21969	6761	54.9
1998-99																
Apr	336085	128876	340	206869 *17.9*	431636 *15.3*	8201	423435 *15.2*	126884	116205	10679	3241	60182	46312	13870	5944	56.2
May	348541	141664	448	206429 *17.4*	429933 *15.1*	8367	421566 *15.1*	127044	116365	10679	3437	61258	49157	12101	5526	55.2
Jun	360598	148779	1563	210256 *15.0*	428206 *14.5*	8439	419767 *14.5*	126234	115555	10679	3482	62723	53887	8836	5955	54.3
Jul	366717	149932	740	216045 *14.2*	432953 *14.7*	8469	424484 *14.8*	125663	114984	10679	3522	66921	58301	8620	5498	54.1
Aug	363716	139779	858	223079 *13.8*	433804 *14.9*	8200	425604 *15.1*	128157	117478	10679	3522	46494	53804	-7310	6357	54.4
Sept	366624	135473	947	230204 *21.2*	437192 *14.7*	8182	429010 *14.8*	134620	123941	10679	3522	46240	55897	-9657	8891	54.4
Oct	370781	147633	1236	221912 *11.3*	446996 *15.6*	8228	438768 *15.8*	136042	125363	10679	3522	42267	57440	-15173	9414	54.7
Nov	378756	150045	1407	227304 *14.1*	445732 *14.8*	8302	437430 *15.0*	135995	125316	10679	3522	46385	56823	-10438	10170	54.1

Figures in italics are percentage variations over the comparable period of the previous year.

Table 2: Population Groupwise Distribution of Number of Offices, Aggregate Deposits and Gross Bank Credit – All Scheduled Commercial Banks

(Deposits/Credit in rupees crore)

End of Month/Year	Rural						Semi-Urban						Urban					
	Number of Offices	As Per Cent of Col(26)	Deposits	As Per Cent of Col(27)	Credit	As Per Cent of Col (28)	Number of Offices	As Per Cent of Col(26)	Deposits	As Per Cent of Col(27)	Credit	As Per Cent of Col(28)	Number of Offices	As Per Cent of Col(26)	Deposits	As Per Cent of Col(27)	Credit	As Per Cent of Col(28)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
December 1969	1443	17 6	306.0	6 3	115.0	3.3	3337	40.8	1054.0	21.9	453.0	13.1	1911	23.3	1279.0	26 5	756.0	21.8
December 1970		..	400.0	7.3	193.0	4.5	..	..	1254.0	22.8	668.0	15.5	..	..	1405.0	25.5	960.0	22.3
December 1971			378.0	5.2	159 0	3.1		..	1605.0	22.2	685.0	13.6	..	..	1855.0	25.6	1047.0	20.7
December 1972	5274	36 0	539.7	6.5	257 3	4.6	4607	31.4	1869.0	22.4	783 2	14.0	2637	18.0	2086.7	25.0	1192.6	21.2
December 1973	6024	36 5	741.4	7.4	378 8	5.3	5012	30.4	2317.1	23.0	1024.8	14.5	2983	18.1	2495.5	24.7	1497.4	21.1
December 1974	6447	35.9	923.3	8.0	482 8	5.9	5462	30.5	2624.0	22.6	1220.5	14.8	3332	18.6	2856.9	24.6	1874.8	22.7
December 1975	7112	35 5	1171 4	8 5	608 4	6.0	6156	30 7	3100.0	22.6	1449.4	14.4	3779	18.8	3393.7	24.8	2187.4	21.7
December 1976	8588	36 6	1538.9	8.7	869 9	6.4	7133	30.4	3923.3	22.3	1868.6	13.8	4413	18.8	4390.3	25.0	2817.8	20.8
December 1977	10856	40.3	2009 7	9 4	1104 8	7.2	7702	28 6	4740.5	22.2	2249.4	14.7	4769	17.7	5350.6	25.0	3269.4	21.3
December 1978	12534	42 5	2664.0	10 1	1530 1	8 4	8019	27.2	5821 5	22.0	2870.4	15.7	5037	17.1	6664 7	25.2	3942.3	21.5
December 1979	14171	44 0	3559.3	11.4	2003 0	9 3	8295	25.7	7022.5	22.5	3479.9	16.1	5494	17.1	7804.2	25.0	4585.8	21.3
December 1980	16111	46 9	4643.6	12.6	2642 8	10 7	8678	25.2	8540.5	23.1	4200.7	17.0	5462	15.9	9273.0	25.1	5535.3	22.4
December 1981	19453	51 2	5939 1	13.4	3600 1	11.9	8718	22.9	10234 2	23.1	5261.2	17.4	5622	14.8	10949 1	24.7	6713.1	22.3
December 1982	21626	53 0	7413 6	14 2	4472 9	12.5	8921	21 9	11976.5	22.9	6113.7	17.1	5511	13.5	12990.0	24.8	7577.3	21.2
December 1983	23782	52 4	8827.9	14 4	5575 8	13.6	10115	22.3	14349.8	23.5	7575 4	18.5	6649	14 7	15251 8	24 9	8716.3	21.3
December 1984	25541	52 9	9602 5	13 4	6588 6	13.5	10331	21.4	15733.1	21.9	8349.1	17.1	7347	15.2	19044.9	26.6	10893.7	22.3
December 1985	29408	54 6	11722 2	13 6	7488 7	14.1	10745	19.9	18162.7	21.1	9089.1	17.1	8117	15.1	22187 7	25.8	11854 2	22.3
December 1986	29700	55 7	14375.1	14.0	9386 6	14 5	10658	20.0	21403.6	20 9	10984.9	17.0	7649	14.3	26660 6	26.0	14631 2	22.6
December 1987	30585	56 2	17527.4	14.7	11126 8	15 3	10731	19.7	25297.2	21.3	12663.5	17.5	7722	14.2	30784.5	25.9	16393.5	22 6
December 1988	31641	56 2	20907.4	14 7	13451 6	15.3	11179	19 9	30113.2	21.2	15109 8	17.2	7929	14.1	35953.0	25 4	19648 7	22.4
December 1989	33572	57 3	24382 6	15.0	15546 2	14 8	11263	19 2	34196.8	21.1	17094.0	16 3	8082	13.8	39854.5	24.6	22875 2	21 8
March 1990	34867	58.2	28608.7	15 5	17351 7	14.2	11309	18.9	38979.3	21.1	18990.3	15.6	8065	13 5	45416 1	24 6	26656.3	21 9
March 1991	35216	58 1	33163 3	15.1	19687 9	14.7	11379	18.8	43937 8	20.0	20623.9	15 4	8233	13.6	51411.7	23.4	28475.8	21.3
March 1992	35218	58 0	35057 9	15.0	20586 7	14.5	11397	18.8	45869.1	19 7	21778.8	15 3	8285	13 7	53892 4	23 1	29267.8	20 6
March 1993	35301	57 6	40672 1	14 8	23156 4	14.0	11417	18 6	52436 7	19.1	23590.4	14.2	8628	14 1	62389.3	22.8	33011.3	19.9
March 1994	35379	57 2	47776.2	15.0	25073 6	13.9	11720	18.9	61814.0	19.4	24649 5	13.7	8824	14.3	73221.4	23.0	36685 0	20 4
March 1995	35008	56 2	57399 2	15 3	28182 7	12.7	12270	19.7	74223.8	19.7	28665.1	12 9	8982	14 4	88715.7	23 6	45757.9	20.6
March 1996 *	33092	52 7	61106 0	14 3	29122 0	11.1	13399	21.3	82425.0	19.3	33444.0	12 7	9025	14 4	94673.0	22.2	48716.0	18 5
March 1997 *	33008	52 0	72511 1	14 7	32371 6	11.5	13641	21 5	96657.8	19.6	37478 2	13 3	9298	14.6	110292.3	22.4	51299.3	18 2
March 1998 *	32890	51.2	86483 8	14 6	36696 9	11 2	13876	21 6	114482 6	19.3	41679 8	12 7	9637	15.0	133604.7	22 6	57408.6	17.5
June 1998 *	32860	50 9	87594 2	14 4	36793 2	11 1	13967	21.6	117395 9	19.2	40794.0	12.3	9766	15 1	137162 9	22 5	57672.4	17.3
September 1998*	32838	50.8	92201 8	14 4	37866 7	11 0	14024	21.7	123269.2	19.3	41950 1	12 2	9802	15 2	145463.7	22 8	60350.9	17 6

End of Month/Year	Metropolitan						All-India Total			Share of Top 100 Centres $					
	Number of Offices	As Per Cent of Col(26)	Deposits	As Per Cent of Col(27)	Credit	As Per Cent of Col(28)	Number of Offices	Deposits	Credit	No of Deposit Offices	As Per Cent of Col(26)	Deposits	As Per Cent of Col(27)	Credit	As Per Cent of Col(28)
(1)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)
December 1969	1496	18.3	2183 0	45 3	2143 0	61.8	8187(100 0)	4822(100 0)	3467(100.0)	.	.				.
December 1970			2443 0	44 4	2477 0	57 6	12946(100.0)	5502(100.0)	4298(100.0)	.					
December 1971			3405 0	47 0	3160 0	62 6	12890(100.0)	7243(100 0)	5051(100.0)	..	.				
December 1972	2132	14.6	3864 3	46 2	3380 7	60.2	14650(100.0)	8360(100.0)	5614(100 0)	..	.	.	.		
December 1973	2484	15 1	4530 0	44 9	4190 1	59.1	16503(100 0)	10084(100.0)	7091(100.0)						
December 1974	2696	15 0	5206.3	44 8	4668 0	56 6	17937(100.0)	11611(100.0)	8246(100.0)						..
December 1975	3002	15 0	6045 6	44 1	5828.3	57 9	20049(100 0)	13711(100.0)	10073(100.0)		.	.		.	.
December 1976	3351	14 3	7743.0	44 0	7996 8	59.0	23485(100.0)	17595(100 0)	13553(100.0)	.			.		
December 1977	3631	13 5	9263 7	43 4	8703 7	56 8	26958(100.0)	21365(100.0)	15327(100 0)	.	..	.			
December 1978	3886	13 2	11341 3	42 8	9967 4	54 4	29476(100 0)	26492(100.0)	18310(100.0)	.	.			.	
December 1979@	4259	13 2	12888 9	41 2	11490 3	53 3	32219(100 0)	31275(100.0)	21559(100 0)	.	.			.	..
December 1980	4134	12 0	14540 0	39 3	12381 6	50 0	34385(100.0)	36997(100.0)	24760(100 0)	..	.	..	.	.	..
December 1981	4225	11 1	17137 1	38 7	14580 5	48 4	38018(100.0)	44260(100 0)	30155(100.0)		.	..	.	.	.
December 1982	4735	11 6	19899 5	38 1	17515 2	49 1	40793(100.0)	52280(100.0)	35679(100.0)	9179	22 5	29255.7	56 0	21808 9	61 1
December 1983	4839	10 7	22719 5	37 2	19119 0	46.6	45385(100 0)	61149(100.0)	40986(100 0)	9610	21 2	37257.4	60 9	28302.0	69 1
December 1984	5101	10 6	27301 7	38.1	23099 6	47 2	48320(100 0)	71682(100.0)	48931(100 0)	10129	21 0	43104 6	60.1	33475.0	68 4
December 1985	5629	10 4	33849.1	39.4	24730.4	46.5	53899(100.0)	85922(100.0)	53162(100 0)	10433	19 4	51681 4	60.1	37454.9	70.5
December 1986	5357	10.0	40185.7	39 2	29674 7	45.9	53364(100 0)	102625(100 0)	64677(100 0)	10634	19 9	61893 7	60.3	42135.9	65 1
December 1987	5393	9.9	45413.5	38.2	32365 6	44 6	54431(100 0)	119023(100 0)	72549(100 0)	10726	19 7	70295 0	59.1	46073 8	63.5
December 1988	5533	9 8	54849.3	38 7	39535 5	45 1	56282(100.0)	141823(100.0)	87746(100 0)	10978	19.5	84123 0	59.3	55815.8	63.6
December 1989	5651	9 6	63602 1	39.3	49351.0	47.1	58568(100.0)	162036(100.0)	104866(100.0)	11212	19.1	95981.0	59.2	68630 9	65.4
March 1990	5656	9 4	71956 8	38 9	58985 4	48 4	59897(100 0)	184961(100.0)	121984(100.0)	11227	18.7	108912 6	58 9	81876 6	67.1
March 1991	5769	9.5	91026 2	41 5	64957 6	48.6	60597(100.0)	219539(100.0)	133745(100 0)	11490	19.0	132875 9	60 5	89531.2	66 9
March 1992	5790	9 5	98266 2	42.2	70577.6	49.6	606[illegible](100.0)	233086(100 0)	142211(100.0)	11576	19.1	142288.5	61.0	65605.6	46 1
March 1993	5889	9 6	118569 9	43.3	86078 1	51 9	61235(100 0)	274068(100 0)	165836(100.0)	11825	19.3	169681 4	61.9	114801.1	69.2
March 1994	5929	9 6	135106 0	42 5	93608 5	52.0	61852(100 0)	317918(100.0)	180017(100.0)	12003	19.4	195301.7	61.4	125808.4	69 9
March 1995	6004	9 6	155525 2	41.4	119900 9	53.9	62264(100.0)	375864(100.0)	222507(100.0)	12172	19.5	229235.1	61.0	160326.2	72 1
March 1996 *	7333	11 7	187870 0	44.1	152251 0	57 8	62849(100.0)	426073(100.0)	263533(100.0)	12560	20.0	254255.0	59.7	191189.0	72.5
March 1997 *	7587	11 9	212766 2	43 2	161087 6	57.1	63534(100.0)	492227(100.0)	282237(100.0)	13011	20.5	289957.8	58.9	201663.2	71.5
March 1998 *	7864	12 2	257496 9	43 5	192851 8	58.7	64267(100.0)	592068(100.0)	328637(100.0)	13516	21.0	351683 2	59.4	237893.6	72.4
June 1998 *	7954	12 3	268210 4	43 9	197177.2	59.3	64574(100.0)	610363(100.0)	332437(100.0)	13700	21.2	364584.6	59.7	243063.4	73.1
September 1998*	7983	12 3	277578 1	43 5	202645 6	59 1	64647(100.0)	638513(100.0)	342813(100.0)	13756	21.3	379779.9	59.5	250774.0	73.2

$ Top 100 Centres may not have remained the same in different time periods @ Data for top 100 centres refer to September 1982 . denotes not available

* From March 1995 onwards the population groups of centres have been revised based on the 1991 Census.

Source RBI, Banking Statistics *Quarterly Handout; Statistical Tables Relating to Banks in India*; and Banking Statistics: *Basic Statistical Returns*, various issues.

Table 3: Two-Way Classification of Bank Deposits by Population Group and Type of Deposits

(*Amount in rupees crore*)

Population Group	No of Offices	Current: No of Accounts (in '000)	Current: Amount	Current: Per Cent to Grand Total	Saving: No of Accounts (in '000)	Saving: Amount	Saving: Per Cent to Grand Total	Term: No of Accounts (in '000)	Term: Amount	Term: Per Cent to Grand Total	Grand Total: No of Accounts (in '000)	Grand Total: Amount
March 1996												
Rural	na	2003	3199.53	5.2	82728	20505.32	33.4	28173	37608.33	61.3	112904	61313.17
		12.1	*5.0*		*30.4*	*19.5*		*27.3*	*14.6*		*28.8*	*14.4*
Semi-urban	na	3823	7130.47	8.6	77622	24795.16	29.8	27971	51261.72	61.6	109416	83187.34
		23.0	*11.3*		*28.5*	*23.6*		*27.1*	*19.9*		*27.9*	*19.5*
Urban	na	4798	13870.45	14.5	58647	24690.60	25.8	25007	57004.52	59.6	88452	95565.57
		28.9	*21.9*		*21.5*	*23.5*		*24.2*	*22.1*		*22.6*	*22.4*
Metropolitan	na	5981	39159.00	21.0	53228	35034.27	18.8	22028	111860.21	60.1	81238	186053.47
		36.0	*61.8*		*19.6*	*33.4*		*21.3*	*43.4*		*20.7*	*43.7*
Total	na	16604	63359.44	14.9	272226	105025.35	24.6	103179	257734.78	60.5	392009	426119.56
		100.0	*100.0*		*100.0*	*100.0*		*100.0*	*100.0*		*100.0*	*100.0*
March 1995												
Rural	33017	2019	2883.95	5.6	81740	17952.24	34.6	26185	30983.43	59.8	109944	51819.62
	51.7	*11.6*	*4.6*		*29.9*	*19.0*		*26.3*	*13.9*		*28.2*	*13.7*
Semi-urban	13502	3939	6520.79	9.1	77088	21996.17	30.8	27102	42947.40	60.1	108129	71464.36
	21.2	*22.7*	*10.5*		*28.2*	*23.3*		*27.2*	*19.3*		*27.7*	*18.8*
Urban	9575	5039	12857.77	15.3	59165	22214.83	26.4	24624	49056.15	58.3	88828	84128.74
	15.0	*29.0*	*20.7*		*21.7*	*23.5*		*24.7*	*22.0*		*22.8*	*22.2*
Metropolitan	7723	6375	39818.78	23.2	55166	32409.33	18.9	21593	99533.32	57.9	83134	171761.42
	12.1	*36.7*	*64.1*		*20.2*	*34.3*		*21.7*	*44.7*		*21.3*	*45.3*
Total	63817	17372	62081.29	16.4	273159	94572.57	24.9	99504	222520.3	58.7	390035	379174.14
	100.0	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*	*100.0*		*100.0*	*100.0*
March 1993												
Rural	35360	2175	2256.12	5.4	88798	13735.69	33.2	26841	25417.92	61.4	117814	41409.73
	56.3	*14.1*	*5.1*		*33.0*	*20.6*		*28.3*	*15.4*		*31.0*	*15.0*
Semi-urban	11692	3839	4949.04	9.2	74452	15461.82	28.9	25732	33173.75	61.9	104023	53584.61
	18.6	*24.9*	*11.1*		*27.6*	*23.2*		*27.1*	*20.1*		*27.4*	*19.4*
Urban	9376	4643	10043.67	15.7	58854	16348.93	25.6	23759	37542.32	58.7	87256	63934.92
	14.9	*30.1*	*22.6*		*21.9*	*24.6*		*25.0*	*22.8*		*23.0*	*23.2*
Metropolitan	6346	4744	27289.55	23.3	47241	21009.02	18.0	18633	68622.64	58.7	70618	116921.21
	10.1	*30.8*	*61.3*		*17.5*	*31.6*		*19.6*	*41.7*		*18.6*	*42.4*
Total	62774	15401	44538.38	16.1	269345	66555.46	24.1	94965	164756.63	59.7	379711	275850.47
	100.0	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*	*100.0*		*100.0*	*100.0*
March 1990												
Rural	34184	2130	1558.77	5.9	77772	10067.28	38.4	22211	14607.59	55.7	102113	26233.64
	56.5	*13.9*	*6.0*		*33.0*	*20.8*		*27.0*	*15.0*		*30.6*	*15.3*
Semi-urban	11490	3885	3414.37	9.4	65956	11782.58	32.4	22473	21172.69	58.2	92314	36369.64
	19.0	*25.4*	*13.1*		*28.0*	*24.3*		*27.3*	*21.7*		*27.7*	*21.2*
Urban	8744	4308	6435.29	15.2	50716	12009.47	28.3	20723	23971.35	56.5	75747	42416.11
	14.4	*28.1*	*24.7*		*21.5*	*24.8*		*25.2*	*24.6*		*22.7*	*24.7*
Metropolitan	6097	4998	14638.13	21.9	41174	14638.05	21.9	16968	37615.82	56.2	63140	66892.00
	10.1	*32.6*	*56.2*		*17.5*	*30.2*		*20.6*	*38.6*		*18.9*	*38.9*
Total	60515	15321	26046.56	15.2	235618	48497.38	28.2	82375	97367.45	56.6	333314	171911.39
	100.0	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*	*100.0*		*100.0*	*100.0*
December 1985												
Rural	29408	1154	783.59	6.7	46457	4633.58	39.5	14107	6305.05	53.8	61718	11722.22
	54.6	*12.4*	*5.9*		*30.0*	*18.1*		*22.1*	*13.4*		*27.1*	*13.6*
Semi-urban	10745	2420	1790.14	9.9	44441	6246.63	34.4	17507	10125.95	55.8	64368	18162.72
	19.9	*26.1*	*13.6*		*28.7*	*24.4*		*27.5*	*21.5*		*28.2*	*21.1*
Urban	8117	2792	3299.19	14.9	35332	6205.31	28.0	18258	12683.23	57.2	56382	22187.73
	15.1	*30.1*	*25.0*		*22.8*	*24.3*		*28.7*	*26.9*		*24.7*	*25.8*
Metropolitan	5629	2921	7328.91	21.7	28659	8477.82	25.0	13817	18042.41	53.3	45397	33849.14
	10.4	*31.5*	*55.5*		*18.5*	*33.2*		*21.7*	*38.3*		*19.9*	*39.4*
Total	53899	9287	13201.83	15.4	154889	25563.34	29.8	63689	47156.64	54.9	227865	85921.81
	100.0	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*	*100.0*		*100.0*	*100.0*
December 1975												
Rural	7106	511	108.03	9.3	7007	457.20	39.2	2426	602.51	51.6	9944	1167.74
	35.4	*11.7*	*4.4*		*18.1*	*12.7*		*15.4*	*7.9*		*16.9*	*8.5*
Semi-urban	6160	1217	434.25	14.0	11848	963.03	31.0	4857	1710.37	55.0	17922	3107.65
	30.7	*27.9*	*17.7*		*30.6*	*26.7*		*30.8*	*22.4*		*30.5*	*22.7*
Urban	3782	1232	591.49	17.4	9777	915.19	27.0	4274	1883.71	55.6	15283	3390.39
	18.9	*28.2*	*24.1*		*25.3*	*25.4*		*27.1*	*24.6*		*26.0*	*24.7*
Metropolitan	3002	1408	1319.47	21.8	10045	1271.94	21.0	4213	3453.54	57.1	15666	6044.95
	15.0	*32.2*	*53.8*		*26.0*	*35.3*		*26.7*	*45.1*		*26.6*	*44.1*
Total	20050	4368	2453.24	17.9	38677	3607.36	26.3	15770	7650.13	55.8	58815	13710.73
	100.0	*100.0*	*100.0*		*100.0*	*100.0*		*100.0*	*100.0*		*100.0*	*100.0*

na: not available. Figures in italics are percentages to respective deposit-type totals.
Source: RBI, Banking Statistics: *Basic Statistical Returns*, various issues.

Table 4(A): Ownership of Bank Deposits by Type and Economic Sector
(As on Last Friday of March)

(Rupees, crore)

Sector of the Economy	1997 Current	1997 Savings	1997 Term	1997 Total	1996 Current	1996 Savings	1996 Term	1996 Total	1995 Current	1995 Savings	1995 Term	1995 Total	1993 Current	1993 Savings	1993 Term	1993 Total
I Govt Sector	9658	7161	15553	32373	7274	6172	16848	30294	7371	4832	12618	24821	4660	2542	6967	14169
	13.2	*6.3*	*4.8*	*6.4*	*11.4*	*6.0*	*6.2*	*6.9*	*11.5*	*5.2*	*5.5*	*6.4*	*10.3*	*4.1*	*4.0*	*5.1*
II Corporate Sector *	14489	1958	14900	31348	10503	1274	12962	24739	12129	1086	13438	26653	8517	396	7931	16844
(Non-financial)	*19.9*	*1.7*	*4.6*	*6.2*	*16.5*	*1.2*	*4.8*	*5.6*	*19.0*	*1.2*	*5.9*	*6.9*	*18.7*	*0.6*	*4.6*	*6.0*
III Corporate Sector *	12860	1361	24884	39105	11891	993	13904	26788	12584	572	12698	25854	11092	588	11249	22929
(Financial)	*17.6*	*1.2*	*7.7*	*7.7*	*18.7*	*1.0*	*5.1*	*6.1*	*19.7*	*0.6*	*5.6*	*6.7*	*24.4*	*1.0*	*6.5*	*8.2*
IV Other Institutions *	19305	11583	44710	75598	17690	12665	39019	69374	15826	11301	34467	61594	8121	2490	8522	19132
	26.5	*10.2*	*13.9*	*14.9*	*27.8*	*12.2*	*14.4*	*15.8*	*24.7*	*12.1*	*15.1*	*16.0*	*17.9*	*4.0*	*4.9*	*6.8*
V Individuals incl HUF	16095	91391	218833	326319	15397	82066	183291	280753	15233	75346	153997	244577	13068	55798	137702	206569
	22.1	*80.2*	*68.0*	*64.2*	*24.2*	*79.3*	*67.7*	*64.1*	*23.8*	*80.7*	*67.4*	*63.4*	*28.7*	*90.3*	*79.9*	*73.9*
Non-residents	812	4788	52147	57747	412	4750	40537	45698	402	4796	32718	37916	192	3266	30379	33837
	1.1	*4.2*	*16.2*	*11.4*	*0.6*	*4.6*	*15.0*	*10.4*	*0.6*	*5.1*	*14.3*	*9.8*	*0.4*	*5.3*	*17.6*	*12.1*
Residents	15283	86603	166686	268572	14985	77316	142754	235055	14831	70550	121279	206661	12877	52532	107323	172732
	21.0	*76.0*	*51.8*	*52.8*	*23.5*	*74.7*	*52.7*	*53.7*	*23.2*	*75.6*	*53.0*	*53.5*	*28.3*	*85.0*	*62.3*	*61.8*
Farmers	665	17343	35604	53612	504	15772	31167	47443	642	15352	27347	43341	480	9664	19682	29826
	0.9	*15.2*	*11.1*	*10.5*	*0.8*	*15.2*	*11.5*	*10.8*	*1.0*	*16.4*	*12.0*	*11.2*	*1.1*	*15.6*	*11.4*	*10.7*
Businessmen, traders, etc	10092	15945	36482	62520	9959	12802	29097	51858	9934	12265	26512	48711	8561	10882	25358	44800
	13.8	*14.0*	*11.3*	*12.3*	*15.6*	*12.4*	*10.7*	*11.8*	*15.5*	*13.1*	*11.6*	*12.6*	*18.8*	*17.6*	*14.7*	*16.0*
Wages and salary earners	1051	27495	43696	72242	855	23076	34298	58230	853	22003	30061	52917	730	15859	25506	42096
	1.4	*24.1*	*13.6*	*14.2*	*1.3*	*22.3*	*12.7*	*13.3*	*1.3*	*23.6*	*13.1*	*13.7*	*1.6*	*25.7*	*14.8*	*15.1*
Others	3476	25819	50904	80199	3668	25665	48192	77525	3403	20931	37359	61692	3106	16128	36777	56011
	4.8	*22.7*	*15.8*	*15.8*	*5.8*	*24.8*	*17.8*	*17.7*	*5.3*	*22.4*	*16.3*	*16.0*	*6.8*	*26.1*	*21.3*	*20.0*
Grand Total (I to V)	72929	113918	321805	508652	63656	103443	270904	438004	63963	93369	228622	385954	45459	61814	172370	279643
	100.0	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

Sector of the Economy	1990 Current	1990 Savings	1990 Term	1990 Total	1986 Current	1986 Savings	1986 Term	1986 Total	1982 Current	1982 Savings	1982 Term	1982 Total	1971 Current	1971 Savings	1971 Term	1971 Total
I Govt Sector	4260	2025	5542	11827	1723	950	2847	5520	614	381	1573	2568	366	..	511	877
	14.4	*4.4*	*5.6*	*6.8*	*12.2*	*4.0*	*5.8*	*6.3*	*9.6*	*2.6*	*7.0*	*5.9*	*24.3*		*16.6*	*14.3*
II Corporate Sector *	5873	357	4528	10758	2490	251	2914	5655	838	85	821	1743	284	.	193	478
(Non-financial)	*19.9*	*0.8*	*4.6*	*6.2*	*17.7*	*1.0*	*5.9*	*6.5*	*13.2*	*0.6*	*3.6*	*4.0*	*18.9*		*6.3*	*7.8*
III Corporate Sector *	4820	532	5590	10942	2863	153	2228	5244	1173	325	804	2301			.	.
(Financial)	*16.3*	*1.2*	*5.7*	*6.3*	*20.3*	*0.6*	*4.5*	*6.0*	*18.4*	*2.2*	*3.6*	*5.3*				
IV Other Institutions *	5711	2268	5901	13880	3401	1096	3605	8101	2026	504	1652	4181		.	.	
	19.3	*4.9*	*6.0*	*8.0*	*24.2*	*4.6*	*7.3*	*9.3*	*31.8*	*3.4*	*7.3*	*9.5*				
V Individuals incl HUF	8905	40970	77040	126915	3600	21564	37614	62778	1722	13598	17677	32997	857	1541	2371	4769
	30.1	*88.8*	*78.1*	*72.8*	*25.6*	*89.8*	*76.4*	*71.9*	*27.0*	*91.3*	*78.5*	*75.4*	*56.9*	*100.0*	*77.1*	*77.9*
Non-residents	225	2228	13609	16063	34	1321	4511	5865	15	675	800	1490		.		..
	0.8	*4.8*	*13.8*	*9.2*	*0.2*	*5.5*	*9.2*	*6.7*	*0.2*	*4.5*	*3.6*	*3.4*				
Residents	8680	38742	63431	110853	3566	20244	33103	56913	1707	12923	16877	31507	.	..	.	.
	29.4	*83.9*	*64.3*	*63.6*	*25.3*	*84.3*	*67.3*	*65.2*	*26.8*	*86.8*	*74.9*	*71.9*				
Farmers	415	7942	12516	20873	100	3365	5368	8833	41	2484	2055	4581	..	..	..	..
	1.4	*17.2*	*12.7*	*12.0*	*0.7*	*14.0*	*10.9*	*10.1*	*0.6*	*16.7*	*9.1*	*10.5*				
Businessmen, traders, etc	5364	8340	17274	30977	2320	3913	7804	14038	211	1088	1988	3287	..	..	.	..
	18.1	*18.1*	*17.5*	*17.8*	*16.5*	*16.3*	*15.9*	*16.1*	*3.3*	*7.3*	*8.8*	*7.5*				
Wages and salary earners	740	12270	15991	29001	202	6545	8806	15554	61	2618	3310	5988	362	1498	1734	3593
	2.5	*26.6*	*16.2*	*16.6*	*1.4*	*27.3*	*17.9*	*17.8*	*1.0*	*17.6*	*14.7*	*13.7*	*24.0*	*97.2*	*56.4*	*58.7*
Others	2162	10191	17650	30002	944	6421	11125	18489	1393	6734	9524	17651	..	.	..	..
	7.3	*22.1*	*17.9*	*17.2*	*6.7*	*26.7*	*22.6*	*21.2*	*21.9*	*45.2*	*42.3*	*40.3*				
Grand Total (I to V)	29570	46152	98600	174323	14077	24014	49208	87299	6372	14893	22526	43791	1508	1541	3076	6124
	100.0	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

.. denotes data not available. Figures in italics are percentages to grand totals.

* For these sectors, breakup of foreign sector share since 1995 is not avilable; hence they are not included against respective heads but included in the grand total

Source: *RBI Bulletin*, various issues.

Table 4(B): Population Groupwise Ownership of Deposits of Scheduled Commercial Banks
(As on Last Friday of March)

(Rupees crore)

Sector of the Economy	1997 Rural	1997 Semi-urban	1997 Urban	1997 Metro-politan	1997 Total	1996 Rural	1996 Semi-urban	1996 Urban	1996 Metro-politan	1996 Total	1995 Rural	1995 Semi-urban	1995 Urban	1995 Metro-politan	1995 Total
I Govt Sector	3014	4780	8465	16114	32373	2310	4237	8072	15675	30294	1920	4472	7785	10644	24821
	4.2	*4.9*	*7.6*	*7.1*	*6.4*	*3.7*	*4.9*	*7.9*	*8.4*	*6.9*	*3.1*	*5.8*	*7.8*	*7.3*	*6.4*
Indian	2942	4463	8446	15287	31138	2309	4236	8059	15395	29998	1905	4414	7753	9945	24017
	4.1	*4.5*	*7.6*	*6.8*	*6.1*	*3.7*	*4.9*	*7.9*	*8.2*	*6.8*	*3.1*	*5.7*	*7.8*	*6.8*	*6.2*
Foreign Consulates	72	318	18	827	1235	1	1	13	280	295	16	59	32	699	805
	0.1	*0.3*	*0.0*	*0.4*	*0.2*	*0.0*	*0.0*	*0.0*	*0.1*	*0.1*	*neg*	*0.1*	*neg*	*0.5*	*0.2*
II Corporate Sector (Non-financial)	814	1589	5136	23808	31348	460	1278	4362	18638	24739	968	1726	4781	19177	26653
	1.1	*1.6*	*4.6*	*10.5*	*6.2*	*0.7*	*1.5*	*4.3*	*10.0*	*5.6*	*1.6*	*2.2*	*4.8*	*13.1*	*6.9*
Public Sector	634	1209	3531	7336	12710	378	874	3465	5471	10187	779	996	2856	6796	11427
	0.9	*1.2*	*3.2*	*3.2*	*2.5*	*0.6*	*1.0*	*3.4*	*2.9*	*2.3*	*1.2*	*1.3*	*2.9*	*4.6*	*3.0*
Private Sector	181	380	1605	16472	18638	83	404	898	13168	14553	189	731	1925	12381	15225
	0.3	*0.4*	*1.4*	*7.3*	*3.7*	*0.1*	*0.5*	*0.9*	*7.0*	*3.3*	*0.3*	*0.9*	*1.9*	*8.4*	*3.9*
III Corporate Sector (Financial)	792	3958	7857	26498	39105	1454	3001	6807	15525	26788	851	4407	7743	12854	25855
	1.1	*4.0*	*7.0*	*11.7*	*7.7*	*2.3*	*3.5*	*6.7*	*8.3*	*6.1*	*1.4*	*5.7*	*7.8*	*8.8*	*6.7*
IV Other Institutions	6623	12468	18720	37787	75598	5768	11378	18616	33613	69374	5766	10197	18197	27433	61594
	9.2	*12.7*	*16.7*	*16.7*	*14.9*	*9.2*	*13.1*	*18.3*	*18.0*	*15.8*	*9.2*	*13.2*	*18.3*	*18.7*	*16.0*
V Individuals incl. HUF	60643	74816	70908	119953	326319	52430	66621	63507	98195	280753	52754	56378	60614	74831	244577
	84.1	*76.0*	*63.4*	*53.0*	*64.2*	*83.6*	*76.8*	*62.5*	*52.5*	*64.1*	*84.5*	*72.9*	*60.9*	*51.0*	*63.4*
Non residents	3371	10084	9222	35070	57747	2922	10465	6469	25843	45698	2768	8855	7015	19278	37916
	4.7	*10.2*	*8.2*	*15.5*	*11.4*	*4.7*	*12.1*	*6.4*	*13.8*	*10.4*	*4.4*	*11.5*	*7.1*	*13.1*	*9.8*
Residents	57272	64732	61686	84883	268572	49509	56157	57038	72352	235055	49985	47523	53599	55554	206661
	79.4	*65.7*	*55.2*	*37.5*	*52.8*	*79.0*	*64.8*	*56.1*	*38.7*	*53.7*	*80.1*	*61.5*	*53.9*	*37.9*	*53.5*
Farmers	28632	18477	5002	1500	53612	25282	14794	5656	1711	47443	24289	12734	4699	1619	43341
	39.7	*18.8*	*4.5*	*0.7*	*10.5*	*40.3*	*17.1*	*5.6*	*0.9*	*10.8*	*38.9*	*16.5*	*4.7*	*1.1*	*11.2*
Businessmen, traders, etc	8616	13763	16628	23513	62520	7703	10344	13477	20334	51858	8433	10081	13706	16491	48711
	11.9	*14.0*	*14.9*	*10.4*	*12.3*	*12.3*	*11.9*	*13.3*	*10.9*	*11.8*	*13.5*	*13.0*	*13.8*	*11.2*	*12.6*
Wages and salary earners	10019	15319	18855	28050	72242	7809	11833	17115	21472	58230	9166	11221	15267	17264	52917
	13.9	*15.6*	*16.9*	*12.4*	*14.2*	*12.5*	*13.6*	*16.8*	*11.5*	*13.3*	*14.7*	*14.5*	*15.3*	*11.8*	*13.7*
Others	10005	17172	21201	31821	80199	8714	19185	20791	28835	77525	8097	13487	19927	20180	61692
	13.9	*17.4*	*19.0*	*14.1*	*15.8*	*13.9*	*22.1*	*20.4*	*15.4*	*17.7*	*13.0*	*17.4*	*20.0*	*13.8*	*16.0*
Grand total (I to V)	72105	98462	111791	226293	508652	62689	86724	101672	186919	438004	62425	77332	99465	146732	385954
	100.0	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

Sector of the Economy	1991 Rural	1991 Semi-urban	1991 Urban	1991 Metro-politan	1991 Total	1990 Rural	1990 Semi-urban	1990 Urban	1990 Metro-politan	1990 Total	1986 Rural	1986 Semi-urban	1986 Urban	1986 Metro-politan	1986 Total
I Govt Sector	1310	4041	5272	9276	19899	769	1931	3066	6061	11827	285	733	1462	3040	5520
	2.5	*6.1*	*6.4*	*7.4*	*6.1*	*3.0*	*5.1*	*6.9*	*9.1*	*6.8*	*2.6*	*3.9*	*6.3*	*8.8*	*6.3*
Indian	1308	4041	5261	8733	19342	765	1925	3050	5823	11562	285	733	1458	2845	5321
	2.5	*6.1*	*6.4*	*7.0*	*5.9*	*3.0*	*5.1*	*6.9*	*8.7*	*6.6*	*2.6*	*3.9*	*6.3*	*8.3*	*6.1*
Foreign Consulates	2	0	12	543	557	5	6	16	238	265	0		4	195	199
	neg	*neg*	*neg*	*0.4*	*0.2*	*neg*	*neg*	*neg*	*0.4*	*0.2*	*neg*		*neg*	*0.6*	*0.2*
II Corporate Sector (Non financial)	798	1814	3941	17750	24302	328	923	1629	7878	10758	93	415	1221	3927	5655
	1.5	*2.7*	*4.8*	*14.2*	*7.5*	*1.3*	*2.5*	*3.7*	*11.8*	*6.2*	*0.8*	*2.2*	*5.3*	*11.4*	*6.5*
Public Sector	370	1276	2122	6134	9901	206	455	986	3540	5187	68	294	862	1799	3023
	0.7	*1.9*	*2.6*	*4.9*	*3.0*	*0.8*	*1.2*	*2.2*	*5.3*	*3.0*	*0.6*	*1.6*	*3.7*	*5.2*	*3.5*
Private Sector	428	538	1819	11616	14401	123	467	644	4338	5572	25	120	358	2128	2632
	0.8	*0.8*	*2.2*	*9.3*	*4.4*	*0.5*	*1.2*	*1.5*	*6.5*	*3.2*	*0.2*	*0.6*	*1.6*	*6.2*	*3.0*
III Corporate Sector (Financial)	716	3292	6321	9978	20307	462	2202	4246	4032	10942	268	864	1477	2636	5244
	1.4	*5.0*	*7.7*	*8.0*	*6.2*	*1.8*	*5.8*	*9.6*	*6.0*	*6.3*	*2.4*	*4.6*	*6.4*	*7.7*	*6.0*
IV Other Institutions	1592	3014	6446	[illegible]	22699	792	2183	3844	7061	13880	486	1022	2165	4429	8191
	3.1	*4.5*	[illegible]	*9.3*	[illegible]	*3.1*	*5.8*	*8.7*	*10.6*	*8.0*	*4.4*	*5.5*	*9.4*	*12.9*	*9.3*
V Individuals incl HUF	47357	54311	60506	76567	238741	23232	30412	31504	41767	126915	10003	15676	16700	20399	62778
	91.5	*81.7*	*73.4*	*61.1*	*73.2*	*90.8*	*80.8*	*71.1*	*62.5*	*72.8*	*89.8*	*83.8*	*72.5*	*59.2*	*71.9*
Non-residents	1998	7598	5995	18323	33914	845	2839	2531	9848	16063	370	1365	929	3201	5865
	3.9	*11.4*	*7.3*	*14.6*	*10.4*	*3.3*	*7.5*	*5.7*	*14.7*	*9.2*	*3.3*	*7.3*	*4.0*	*9.3*	*6.7*
Residents	45359	46713	54511	58244	204827	22388	27573	28973	31919	110853	9633	14310	15771	17198	56913
	87.6	*70.3*	*66.1*	*46.5*	*62.8*	*87.5*	*73.2*	*65.4*	*47.8*	*63.6*	*86.5*	*76.5*	*68.5*	*49.9*	*65.2*
Farmers	21277	10477	3403	613	35771	10510	7138	2340	885	20873	4098	3378	1079	279	8833
	41.1	*15.8*	*4.1*	*0.5*	*11.0*	*41.1*	*19.0*	*5.3*	*1.3*	*12.0*	*36.8*	*18.1*	*4.7*	*0.8*	*10.1*
Businessmen, traders, etc	7740	10487	17418	18649	54294	4110	6564	8958	11345	30977	1779	3218	4285	4755	14038
	14.9	*15.8*	*21.1*	*14.9*	*16.7*	*16.1*	*17.4*	*20.2*	*17.0*	*17.8*	*16.0*	*17.2*	*18.6*	*13.8*	*16.1*
Wages and salary earners	8182	11429	14592	15418	49622	4089	6756	8295	9861	29001	1716	3369	4745	5723	15554
	15.8	*17.2*	*17.7*	*12.3*	*15.2*	*16.0*	*17.9*	*18.7*	*14.8*	*16.6*	*15.4*	*18.0*	*20.6*	*16.6*	*17.8*
Others	8161	14319	19097	23563	65140	3678	7115	9381	9827	30002	2040	4345	5662	6442	18489
	15.8	*21.5*	*23.2*	*18.8*	*20.0*	*14.4*	*18.9*	*21.2*	*14.7*	*17.2*	*18.3*	*23.2*	*24.6*	*18.7*	*21.2*
Grand total (I to V)	51772	66471	82485	125219	325948	25584	37650	44290	66799	174323	11135	18709	23024	34431	87299
	100.0	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

. denotes data not available. Figures in italics are percentages to grand totals; neg. negligible.
Source: *RBI Bulletin: Surveys on Composition and Ownership of Bank Deposits*, various issues

Table 5(A): Maturity Pattern of Term Deposits of Scheduled Commercial Banks According to Broad Ownership Categories

(Amount in rupees crore)

Period of Maturity	Individuals No of Accounts	Individuals Amount Outstanding	Others No of Accounts	Others Amount Outstanding	Grand Total No of Accounts	Grand Total Amount Outstanding	Individuals No of Accounts	Individuals Amount Outstanding	Others No of Accounts	Others Amount Outstanding	Grand Total No of Accounts	Grand Total Amount Outstanding
	March 1996						March 1995					
Up to 90 days	6112660	18331.09	449206	12935.1	6561866	31266.19	5878999	17661.76	574546	13713.08	6453545	31374.84
	(6.2)	(8.7)	(9.8)	(27.3)	(6.4)	(12.1)	(6.2)	(9.8)	(11.6)	(33.1)	(6.5)	(14.1)
91 days and above but less than 6 months	3302779	8469.42	232698	7157.96	3535477	15627.38	2839064	6738.88	231295	3286.97	3070359	10025.85
	(3.4)	(4.0)	(5.1)	(15.1)	(3.4)	(6.1)	(3.0)	(3.7)	(4.7)	(7.9)	(3.1)	(4.5)
6 months and above but less than 1 year	7127831	22482.68	383545	4298.82	7511376	26781.5	5816624	13076.75	365850	3375.58	6182474	16452.33
	(7.2)	(10.7)	(8.3)	(9.1)	(7.3)	(10.4)	(6.2)	(7.2)	(7.4)	(8.1)	(6.2)	(7.4)
1 year and above but less than 2 years	23434769	50454.13	1124353	10822.46	24559122	61276.59	27154272	54282.72	1318555	12066.79	28472827	66349.51
	(23.8)	(24.0)	(24.4)	(22.9)	(23.8)	(23.8)	(28.7)	(30.0)	(26.6)	(29.1)	(28.6)	(29.8)
2 years and above but less than 3 years	20809822	42645.79	995067	6341.8	21804889	48987.59	17757694	30462.24	972664	3941.47	18730358	34403.71
	(21.1)	(20.3)	(21.6)	(13.4)	(21.1)	(19.0)	(18.8)	(16.8)	(19.6)	(9.5)	(18.8)	(15.5)
3 years and above but less than 5 years	18730587	39838.87	803147	3818.55	19533734	43657.42	17562214	35146.13	781798	3384.11	18344012	38530.24
	(19.0)	(18.9)	(17.4)	(8.1)	(18.9)	(16.9)	(18.6)	(19.4)	(15.8)	(8.2)	(18.4)	(17.3)
5 years and above	19057705	28164.66	614796	1973.44	19672501	30138.1	17537943	23699.11	713123	1684.70	18251066	25383.81
	[illegible]	(13.4)	(13.4)	(4.2)	(19.1)	(11.7)	(18.5)	(13.1)	(14.4)	(4.1)	(18.3)	(11.4)
Total	98576153	210386.64	4602812	47348.13	103178965	257734.77	94546810	181067.59	4957831	41452.70	99504641	222520.29
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)
	March 1994						March 1993					
Up to 90 days	5595756	13032	522337	12705	6118093	25737	5899966	13398	484361	8148	6384327	21545
	(5.7)	(8.6)	(9.1)	(29.9)	(5.9)	(13.3)	(6.5)	(9.9)	(11.4)	(27.8)	(6.7)	(13.1)
91 days and above but less than 6 months	2683120	6128	375034	7643	3058154	13772	2390421	5131	179290	3409	2569711	8540
	(2.7)	(4.1)	(6.6)	(18.0)	(3.0)	(7.1)	(2.6)	(3.8)	(4.2)	(11.6)	(2.7)	(5.2)
6 months and above but less than 1 year	5509361	11389	353692	3667	5863053	15056	4478445	9655	275734	3917	4754179	13572
	(5.6)	(7.5)	(6.2)	(8.6)	(5.7)	(7.8)	(4.9)	(7.1)	(6.5)	(13.4)	(5.0)	(8.2)
1 year and above but less than 2 years	24882768	40291	1530358	8905	26413126	49195	18784821	29746	886246	5576	19671067	35322
	(25.4)	(26.7)	(26.8)	(21.0)	(25.5)	(25.4)	(20.7)	(21.9)	(20.8)	(19.0)	(20.7)	(21.4)
2 years and above but less than 3 years	19143712	23782	949832	3193	20093544	26975	15476539	21501	693605	2130	16170144	23631
	(19.6)	(15.7)	(16.6)	(7.5)	(19.4)	(13.9)	(17.1)	(15.8)	(16.3)	(7.3)	(17.0)	(14.3)
3 years and above but less than 5 years	20570262	33844	962325	4187	21532587	38031	22206053	33035	939931	3741	23145984	36776
	(21.0)	(22.4)	(16.8)	(9.9)	(20.8)	(19.6)	(24.5)	(24.3)	(22.1)	(12.8)	(24.4)	(22.3)
5 years and above	19459582	22695	1018047	2160	20477629	24855	21476773	23384	792998	1987	22269771	25371
	(19.9)	(15.0)	(17.8)	(5.1)	(19.8)	(12.8)	(23.7)	(17.2)	(18.6)	(6.8)	(23.5)	(15.4)
Total	97844561	15160	5711625	42460	103556186	193620	90713045	135906	4252226	29318	94965212	164842
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)
	March 1992						March 1990					
Up to 90 days	3712039	8442	260827	5343	3972866	13785	867822	1480	106646	1489	974468	2969
	(4.3)	(7.7)	(6.0)	(24.0)	(4.4)	(10.4)	(1.6)	(2.5)	(3.2)	(12.7)	(1.7)	(4.2)
91 days and above but less than 6 months	1761429	4273	131898	1982	1893327	6254	931579	1575	99546	1369	1031125	2945
	(2.1)	(3.9)	(3.0)	(8.9)	(2.1)	(4.7)	(1.7)	(2.7)	(3.0)	(11.7)	(1.8)	(4.2)
6 months and above but less than 1 year	3145480	6411	225533	2333	3371013	8744	1984090	2202	169240	887	2153330	3088
	(3.7)	(5.8)	(5.2)	(10.5)	(3.7)	(6.6)	(3.6)	(3.8)	(5.1)	(7.5)	(3.7)	(4.4)
1 year and above but less than 2 years	14450407	18234	766431	3498	15216838	21732	8899016	8859	598844	2052	9497860	10912
	(16.9)	(16.5)	(17.6)	(15.7)	(16.9)	(16.4)	(16.1)	(15.2)	(18.0)	(17.5)	(16.3)	(15.6)
2 years and above but less than 3 years	18123532	22518	944694	3124	19068226	25642	17435968	19072	1012328	3068	18448296	22140
	(21.2)	(20.4)	(21.7)	(14.1)	(21.2)	(19.4)	(31.6)	(32.7)	(30.4)	(26.1)	(31.6)	(31.6)
3 years and above but less than 5 years	23377776	29919	1126322	4034	24504098	33953	9879502	10796	541634	1038	10421136	11834
	(27.3)	(27.1)	(25.9)	(18.2)	(27.2)	(25.7)	(17.9)	(18.5)	(16.3)	(8.8)	(17.8)	(16.9)
5 years and above	21042195	20478	898332	1563	21940527	22040	15105714	14339	799326	1848	15905040	16188
	(24.6)	(18.6)	(20.6)	(7.0)	(24.4)	(16.7)	(27.4)	(24.6)	(24.0)	(15.7)	(27.2)	(23.1)
Total	85612858	110317	4354066	22217	89966913	132213	55103691	58324	3327564	11752	58431255	70076
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

@ Break up not available .. denotes not available Figures in brackets are percentages to total

Source As in Table 2

Table 5(B): Maturity Pattern of Term Deposits of Scheduled Commercial Banks According to Population Group

(Amount in rupees crore)

Period of Maturity	Rural		Semi Urban		Urban		Metropolitan		Gross Total	
	No of Accounts	Amount Outstanding	No of Accounts	Amount Outstanding	No of Accounts	Amount Outstanding	No of Accounts	Amount Outstanding	No of Accounts	Amount Outstanding
					March 1996					
Up to 90 days	97676[illegible](3.5)	2131(5.7)	16[illegible]9353(5.9)	4093(8.0)	1883903(7.5)	6619(11.6)	2061845(9.4)	18424(16.5)	6561866(6.4)	31266(12.1)
91 days and above but less than 6 months	588002(2.1)	1042(2.8)	872666(3.1)	1829(3.6)	1007859(4.0)	2841(5.0)	1066950(4.8)	9916(8.9)	3535477(3.4)	15627(6.1)
6 months and above but less than 1 year	1408636(5.0)	2090(5.6)	1925032(7.2)	3673(7.2)	2[illegible]145[illegible]08(8.5)	4596(8.1)	2063178(9.4)	16421(14.7)	7511376(7.3)	26782(10.4)
1 year and above but less than 2 years	5315040(18.9)	7481(19.9)	6667141(23.8)	12430(24.2)	6460656(25.8)	14573(25.6)	6116285(27.8)	26793(24.0)	24559122(23.8)	61277(23.8)
2 years and above but less than 3 years	5200064(18.5)	7211(19.2)	5782955(20.7)	10528(20.5)	5717540(22.9)	12627(22.2)	5104330(23.2)	18621(16.6)	21804889(21.1)	48988(19.0)
3 years and above but less than 5 years	6083651(21.6)	7732(20.6)	5512770(19.7)	10475(20.4)	4481591(17.9)	9789(17.2)	3455722(15.7)	15662(14.0)	19533734(18.9)	43657(16.9)
5 years and above	8600882(30.5)	9921(26.4)	5571266(19.9)	8234(16.1)	3340617(13.4)	5959(10.5)	2159736(9.8)	6024(5.4)	19672501(19.1)	30138(11.7)
Total	28173040(100.0)	37608(100.0)	27971183(100.0)	51262(100.0)	25006696(100.0)	57005(100.0)	22028046(100.0)	111860(100.0)	103178965(100.0)	257735(100.0)
					March 1995					
Up to 90 days	919926(3.5)	1785(5.8)	1546260(5.7)	3227(7.5)	1787147(7.3)	6047(12.3)	2200212(10.2)	20315(20.4)	6453545(6.5)	31375(14.1)
91 days and above but less than 6 month	481542(1.8)	745(2.4)	773[illegible]06(2.9)	1300(3.0)	872158(3.5)	2027(4.1)	943353(4.4)	5954(6.0)	3070359(3.1)	10026(4.5)
6 months and above but less than 1 year	[illegible]	1556(5.0)	[illegible]	2546(5.9)	[illegible]	[illegible]	16[illegible]1632(7.8)	9009(9.1)	6182474(6.2)	16452(7.4)
1 year and above but less than 2 years	6068646(23.2)	7981(25.8)	7542578(27.8)	12688(29.5)	7734250(31.4)	16058(32.7)	7127353(33.0)	29622(29.8)	28472827(28.6)	66350(29.8)
2 years and above but less than 3 years	4544325(17.4)	5073(16.4)	5125086(18.9)	7566(17.6)	5011097(20.4)	8661(17.7)	4049850(18.8)	13103(13.2)	18730358(18.8)	34404(15.5)
3 years and above but less than 5 years	5642732(21.5)	6406(20.7)	5217682(19.3)	8760(20.4)	4200435(17.1)	7967(16.2)	3283163(15.2)	15398(15.5)	18344012(18.4)	38530(17.3)
5 years and above	7369298(28.1)	7437(24.0)	5342673(19.7)	6860(16.0)	3241458(13.2)	4954(10.1)	2297637(10.6)	6132(6.2)	18251066(18.3)	25384(11.4)
Total	26[illegible]85002(100.0	30983(100.0)	27102233(100.0)	42947(100.0)	24624206(100.0)	49056(100.0)	21593200(100.0)	99533(100.0)	99504641(100.0)	222520(100.0)
					March 1992					
Up to 90 days	623905(2.5)	1014(5.0)	949111(3.8)	1787(6.6)	1172753(5.2)	3264(10.7)	1227094(6.9)	7720(14.2)	3972866(4.4)	13785(10.4)
91 days and above but less than 6 months	325319(1.3)	442(2.2)	446865(1.8)	764(2.8)	557773(2.5)	1185(3.9)	563370(3.2)	3864(7.1)	1893327(2.1)	6254(4.7)
6 months and above but less than 1 year	600477(2.4)	556(2.7)	867420(3.5)	962(3.6)	985151(4.4)	1398(4.6)	917965(5.2)	5827(10.7)	3371013(3.7)	8744(6.6)
1 year and above but less than 2 years	3039207(12.2)	2363(11.6)	4075444(16.5)	4184(15.5)	4591450(20.3)	5351(17.6)	3510737(19.7)	9833(18.1)	15216838(16.9)	21732(16.4)
2 years and above but less than 3 years	4295960(17.2)	3588(17.7)	5307232(21.5)	5572(20.7)	5302997(23.5)	6564(21.5)	4162037(23.4)	9918(18.2)	19068226(21.2)	25642(19.4)
3 years and above but less than 5 years	6900485(27.7)	5609(27.6)	6938444(28.1)	7530(27.9)	6035991(26.7)	8176(26.8)	4629178(26.0)	12638(23.2)	24504098(27.2)	33953(25.7)
5 years and above	9133540(36.7)	6733(33.2)	6083347(24.7)	6157(22.8)	3929601(17.4)	4547(14.9)	2794039(15.7)	4603(8.5)	21940527(24.4)	22040(16.7)
Total	24918896(100.0)	20305(100.0)	24667863(100.0)	26956(100.0)	22575716(100.0)	30486(100.0)	17804420(100.0)	54403(100.0)	89966895(100.0)	132151(100.0)
					March 1991					
Up to 90 days	321535(1.4)	542(3.1)	487683(2.1)	1012(4.2)	579780(2.6)	1703(6.2)	623923(3.6)	5960(13.1)	2012921(2.3)	9217(8.1)
91 days and above but less than 6 months	231536(1.0)	339(2.0)	350592(1.5)	552(2.3)	425560(1.9)	914(3.3)	435047(2.5)	4092(9.0)	1442735(1.7)	5897(5.2)
6 months and above but less than 1 year	541234(2.3)	449(2.6)	832391(3.5)	830(3.5)	915496(4.2)	1233(4.5)	836773(4.8)	4491(9.9)	3125894(3.6)	7003(6.1)
1 year and above but less than 2 years	2726305(11.7)	1918(11.1)	3549238(15.0)	3391(14.2)	3973914(18.1)	4278(15.6)	3118717(17.8)	6724(14.8)	13368174(15.5)	16312(14.3)
2 years and above but less than 3 years	5841743(25.1)	4713(27.3)	6684101(28.2)	6985(29.2)	6777898(30.8)	8485(31.0)	5478025(31.3)	10744(23.6)	24781767(28.7)	30927(27.1)
3 years and above but less than 5 years	5278753(22.7)	3646(21.1)	5571755(23.5)	5253(22.0)	4964364(22.6)	5984(21.9)	3808807(21.8)	8609(18.9)	19623679(22.7)	23492(20.6)
5 years and above	8343803(35.8)	5646(32.7)	6188311(26.2)	5861(24.5)	4346308(19.8)	4776(17.4)	3184838(18.2)	4951(10.9)	22063260(25.5)	21235(18.6)
Total	23284909(100.0)	17253(100.0)	23664071(100.0)	23384(100.0)	21983320(100.0)	27374(100.0)	17486130(100.0)	45571(100.0)	86418430(100.0)	114082(100.0)

Figures in brackets are percentages to total

Source As in Table 2

Table 6: Statewise and Population Groupwise Distribution of Aggregate Deposits and Gross Bank Credit – All Scheduled Commercial Banks

(Deposit/Credit in rupees crore)

March 1998

Region/State Union Territory	Rural A	Rural B	Rural C	Semi-Urban A	Semi-Urban B	Semi-Urban C	Urban/Metropolitan A	Urban/Metropolitan B	Urban/Metropolitan C	Total A	Total B	Total C
Northern Region	18780	6521	34.7	19894	5976	30.0	94368	55310	58.6	133042	67807	51.0
Haryana	2718	1074	39.5	3469	1339	38.6	6001	2815	46.9	12188	5228	42.9
Himachal Pradesh	2767	669	24.2	1606	276	17.2	-		-	4373	945	21.6
Jammu and Kashmir	2137	333	15.6	657	162	24.7	3011	1673	55.6	5806	2169	37.4
Punjab	6640	2636	39.7	8878	2546	28.7	11999	5447	45.4	27518	10628	38.6
Rajasthan	3627	1642	45.3	4783	1593	33.3	8433	4753	56.4	16843	7988	47.4
Chandigarh	64	28	43.0	194	31	15.9	4716	2829	60.0	4975	2887	58.0
Delhi	826	140	17.0	306	28	9.3	60207	37794	62.8	61339	37963	61.9
North-Eastern Region	2409	1010	41.9	3013	746	24.7	3905	1030	26.4	9328	2786	29.9
Arunachal Pradesh	406	54	13.3	6	0	4.5	-	-	-	413	54	13.1
Assam	1436	678	47.2	2081	526	25.3	2505	774	30.9	6022	1978	32.9
Manipur	46	58	126.3	48	41	86.1	190	67	35.5	283	167	58.8
Meghalaya	204	56	27.3	186	24	12.9	630	75	11.9	1019	155	15.2
Mizoram	38	14	36.4	25	9	37.1	150	26	17.5	214	49	23.2
Nagaland	50	20	40.9	495	80	16.1	-	-	-	545	100	18.3
Tripura	[illegible]	131	56.8	172	65	37.6	430	87	20.3	832	283	34.0
Eastern Region	17201	5588	32.5	15760	3708	23.5	46443	22315	48.1	79404	31611	39.8
Bihar	8227	2379	28.9	7891	1667	21.1	9550	3015	31.6	25668	7061	27.5
Orissa	2750	1420	51.6	2380	952	40.0	3688	1612	43.7	8818	3984	45.2
Sikkim	90	18	19.7	190	40	21.1	-	-	-	280	58	20.7
West Bengal	6081	1761	30.0	5116	1023	20.0	33205	17688	53.3	44401	20472	46.1
Andaman and Nicobar Islands	53	10	19.3	184	26	13.9	-	-	-	237	36	15.1
Central Region	21215	6847	32.3	19646	6209	31.6	41197	15736	38.2	82058	28791	35.1
Madhya Pradesh	5079	2427	47.8	6503	2322	35.7	11716	7237	61.8	23299	11986	51.5
Uttar Pradesh	16136	4419	27.4	13143	3887	29.6	29481	8499	28.8	58760	16805	28.6
Western Region	11438	5291	46.3	16893	6089	36.1	128946	91580	71.0	157276	102961	65.5
Goa	1380	201	14.6	3176	919	28.9	-	-	-	4556	1120	24.6
Gujarat	5610	2267	40.4	7112	2457	34.5	22102	12069	54.6	34823	16792	48.2
Maharashtra	4340	2801	64.6	6368	2664	41.8	106844	79512	74.4	117551	84977	72.3
Dadra and Nagar Haveli	100	21	21.4	-	-	-	-	-	-	100	21	21.4
Daman and Diu	8	1	9.2	237	50	21.0	-	-	-	245	51	20.6
Southern Region	15440	11439	74.1	39277	18951	48.3	76243	64290	84.3	130959	94680	72.3
Andhra Pradesh	4622	3870	83.7	7199	4162	57.8	19798	14778	74.6	31619	22810	72.1
Karnataka	4710	3230	68.6	6188	3464	56.0	20984	15058	71.8	31882	21753	68.2
Kerala	1385	795	57.4	17580	6423	36.5	8236	4827	58.6	27201	12045	44.3
Tamil Nadu	4595	3504	76.3	8095	4843	59.8	26569	29376	110.6	39259	37723	96.1
Lakshwadeep	32	3	9.9	-		-	-	-	-	32	3	9.9
Pondicherry	97	38	39.4	214	58	27.2	656	251	38.3	967	347	35.9
All-India	86484	36697	42.4	114483	41680	36.4	391102	250260	64.0	592068	328637	55.5

March 1993

Region/State Union Territory	Rural A	Rural B	Rural C	Semi-Urban A	Semi-Urban B	Semi-Urban C	Urban/Metropolitan A	Urban/Metropolitan B	Urban/Metropolitan C	Total A	Total B	Total C
Northern Region	9323	4161	44.6	8941	3400	38.0	37652	24863	66.0	55916	32424	58.0
Haryana	1354	793	58.6	1676	783	46.7	2169	1299	59.9	5200	2875	55.3
Himachal Pradesh	1337	424	31.7	581	187	32.1				1918	610	31.8
Jammu and Kashmir	775	160	20.6	289	85	29.5	1287	836	65.0	2350	1081	46.0
Punjab	3753	1686	44.9	4208	1399	33.2	4950	2315	46.8	12911	5400	41.8
Rajasthan	1619	1024	63.2	2065	930	45.0	3679	2124	57.7	7364	4078	55.4
Chandigarh	48	14	30.1	61	9	15.0	1914	978	51.1	2022	1002	49.5
Delhi	437	60	13.8	60	7	12.3	23654	17311	73.2	24151	17378	72.0
North-Eastern Region	1155	638	55.3	1419	525	37.0	1594	700	43.9	4169	1863	44.7
Arunachal Pradesh	196	35	18.0	3	0	13.2				198	36	18.0
Assam	674	417	61.9	980	361	36.9	1039	548	52.8	2692	1327	49.3
Manipur	19	26	137.8	18	20	108.6	77	40	52.7	113	86	75.6
Meghalaya	85	31	36.9	81	12	14.9	296	39	13.1	463	82	17.8
Mizoram	29	10	35.9	86	18	21.0	.	.	.	115	29	24.8
Nagaland	60	27	45.0	183	71	38.5	..	.	.	243	98	40.1
Tripura	93	91	98.3	68	43	63.6	183	72	39.4	344	207	60.1
Eastern Region	7495	3887	51.9	7606	2437	32.0	24243	13543	55.9	39344	19867	50.5
Bihar	3603	1771	49.2	3279	1022	31.2	4443	1442	32.5	11325	4236	37.4
Orissa	1075	840	78.2	982	544	55.4	1552	1034	66.6	3608	2417	67.0
Sikkim	34	8	23.5	76	26	33.7	..	..	..	111	34	30.5
West Bengal	2763	1263	45.7	3210	827	25.8	18249	11067	60.6	24221	13156	54.3
Andaman and Nicobar Islands	20	5	24.7	59	19	31.2	..	..	..	80	24	29.6
Central Region	9600	4481	46.7	8785	3938	44.8	17319	8250	47.6	35704	16669	46.7
Madhya Pradesh	2117	1345	63.5	2623	1279	48.8	4892	3237	66.2	9633	5862	60.9
Uttar Pradesh	7483	3135	41.9	6162	2659	43.2	12426	5013	40.3	26071	10807	41.5
Western Region	5638	3094	54.9	8436	3846	45.6	67067	42112	62.8	81141	49052	60.5
Goa	649	85	13.0	1381	394	28.5	..	.	..	2030	479	23.6
Gujarat	2703	1509	55.8	4083	2195	53.8	9635	5004	51.9	16421	8709	53.0
Maharashtra	2255	1492	66.2	2894	1244	43.0	57432	37107	64.6	62582	39843	63.7
Dadra and Nagar Haveli	27	8	28.6	.	..	..	.	.	..	27	8	28.6*
Daman and Diu	3	0	12.6	78	13	17.0	..	..	..	81	14	16.9
Southern Region	8200	6645	81.0	18397	9446	51.3	32980	26502	80.4	59577	42592	71.5
Andhra Pradesh	2503	2288	91.4	3937	2572	65.3	7614	6310	82.9	14055	11170	79.5
Karnataka	2325	1807	77.7	2700	1486	55.1	8763	5774	65.9	13787	9066	65.8
Kerala	972	495	50.9	7714	2848	36.9	3397	2280	67.1	12083	5623	46.5
Tamil Nadu	2313	2022	87.5	3979	2519	63.3	12892	11997	93.1	19184	16538	86.2
Lakshwadeep	14	1	9.2	.	.	..	..	..	..	14	1	9.2
Pondicherry	73	31	42.8	67	20	30.0	314	142	45.1	454	193	42.5
All-India	41410	22906	55.3	53585	23592	44.0	180856	115969	64.1	275850	162467	58.9

Notes: A = Deposits, B = Credit; C = Credit Deposit Ratio in Percentages

* Includes Daman and Diu . not available/not applicable.

Source: As in Table 2.

Table 7: Population Group and Statewise Classification of Outstanding Credit of Scheduled Commercial Banks According to Sanction and Utilisation

(Amount in rupees crore)

Population Group/ Region/State Union Territory	As Per Sanction: No of Accounts	As Per Sanction: Amount Outstanding	As Per Sanction: Credit Deposit Ratio	As Per Utilisation: No of Accounts	As Per Utilisation: Amount Outstanding	As Per Utilisation: Credit Deposit Ratio	As Per Sanction: No of Accounts	As Per Sanction: Amount Outstanding	As Per Sanction: Credit Deposit Ratio	As Per Utilisation: No of Accounts	As Per Utilisation: Amount Outstanding	As Per Utilisation: Credit Deposit Ratio
A By Population Group												
		March 1996						March 1994				
Rural	28 580 976	29012.37	47.3	28 795 008	38613.51	63.0	32 203 250	24670.35	50.0	32 310 293	30863.00	62.6
Semi-urban	15 929 562	33278.77	40.0	15 907 178	36890.50	44.3	16 125 272	24553.94	39.0	16 114 114	26486.35	42.0
Urban	7 171 127	4510[illegible].79	47.2	7 034 553	44397.31	46.5	7 400 918	34869.22	48.3	7 348 834	36174.80	48.7
Metropolitan	4 990 764	147299.19	79.2	4 935 690	134790.79	72.4	3 921 365	90797.76	66.1	3 877 564	82367.12	60.0
Total	56 672 429	254 692	59.8	56 672 429	254692.11	59.8	59 650 805	175891.27	54.3	59 650 805	175891.27	54.3
Rural		March 1992						March 1990				
Semi urban	33 895 809	20692.26	57.9	34 015 483	27520.05	77.0	28 147 793	16067.85	61.2	28 400 861	25467.50	97.1
Urban	17 157 526	21599.28	46.4	17 132 429	22847.09	49.0	15 559 090	17875.51	49.1	15 459 268	17596.68	48.3
Metropolitan	9 416 764	29643.00	53.6	9 358 127	30128.70	54.5	6 867 937	23594.42	55.6	6 769 075	22427.58	52.9
Total	5 390 631	64771.28	65.1	5 354 691	56214.97	56.5	3 275 866	46774.15	69.9	3 721 482	36820.18	58.0
	65 860 730	136705.82	57.7	65 860 730	136705.82	57.7	53 850 686	104311.93	60.7	53 850 686	104311.93	60.7
B By States/Region												
		March 1996						March 1990				
Northern Region	5 815 795	18631.77	51.4		47674.20	50.4	5 816 991	18528.05	49.0	5 815 101	18020.60	47.6
Haryana	954 628	4022.06	44.7		4851.97	54.0	1 131 011	2078.00	60.5	1 132 348	2576.69	75.0
Himachal Pradesh	262 294	762.58	24.2		918.16	29.1	317 682	138.10	36.2	317 896	464.20	38.4
Jammu and Kashmir	347 630	1063.08	28.6		1064.48	28.7	198 504	184.10	31.3	198 654	518.23	33.5
Punjab	1 346 895	8315.76	41.0		8778.15	43.3	1 433 627	3823.39	44.1	1 433 744	4005.56	46.2
Rajasthan	2 039 967	5535.80	45.4		5519.92	45.3	2 110 660	2661.19	57.3	211 999	2857.59	61.5
Chandigarh	65 564	2401.30	63.9		2292.07	61.0	560 987	889.90	67.8	63 628	772.03	55.0
Delhi	798 817	26531.21	62.3		24[illegible]9.52	57.0	651 377	8153.37	47.9	556 832	6876.90	40.4
North Eastern Region	1 633 999	2438.53	35.5		2820.33	41.1	1 002 325	1561.36	54.9	1 004 976	1992.51	70.0
Arunachal Pradesh	25 800	46.10	12.8		88.44	24.6	6 344	39.62	37.7	6 448	58.13	55.4
Assam	1 012 447	1762.36	40.3		1987.37	45.4	573 699	1112.06	58.9	575 740	1 490	78.4
Manipur	64 335	124.88	56.0		123.21	55.7	30 288	62.59	74.1	30 284	65.45	77.5
Meghalaya	81 574	112.68	15.2		175.44	23.6	41 284	54.09	19.4	41 686	70.66	25.3
Mizoram	21 514	33.34	15.9		49.29	23.5	11 098	24.49	37.6	11 294	26.89	41.3
Nagaland	48 492	108.79	28.9		140.46	37.3	15 459	57.32	31.7	15 396	68.12	37.7
Tripura	379 807	251.39	33.9		256.12	44.7	324 153	211.19	91.5	[illegible]	213	92.3
Eastern Region	12 595 571	26104.22	47.0		25811.01	46.4	10 539 826	14046.7	53.3	10 537 333	13 865	52.6
Bihar	5 054 067	5415.77	30.1		5592.77	31.1	4 199 801	3057.63	36.8	4 198 756	3 248	49.0
Orissa	2 819 197	3387.33	55.9		3511.83	58.0	2 705 354	2121.35	90.0	2 705 285	2 188	92.5
Sikkim	20 665	39.25	21.1		41.45	22.3	33 037	33.66	32.6	33 072	47	44.6
West Bengal	4 688 111	17235.05	55.2		16636.68	53.3	3 590 969	6817.23	56.8	3 589 548	8 366	53.9
Andaman and Nicobar Islands	13 531	26.83	16.9		28.27	17.8	10 665	15.86	31.8	10 672	17	33.1
Central Region	9 925 057	23029.60	40.0		24204.27	42.0	9 170 007	11532.70	47.1	9 172 281	12209.87	49.8
Madhya Pradesh	3 157 583	8898.68	56.2		9590.40	60.6	3 308 899	4363.86	66.1	3 309 614	4515.79	68.1
Uttar Pradesh	767 474	14130.92	33.8		14613.88	35.0	5 861 108	7148.84	40.0	5 862 667	7694.08	32.8
Western Region	6 286 434	83628.79	72.2		82728.41	71.4	5 685 489	29008.15	65.3	5 683 454	28317.62	63.7
Goa	99 738	824.86	25.8		841.28	26.3	142 028	418.02	31.5	142 087	135.36	32.8
Gujarat	1 905 004	13424.74	52.9		14451.55	56.9	2 052 504	5807.77	56.7	2 053 552	6471.45	63.2
Maharashtra	4 273 447	69326.08	79.6		67296.98	77.3	3 482 171	22763.80	69.4	3 478 743	21355.68	65.1
Dadra and Nagar Haveli	3 552	12.92	21.7		77.00	129.1	4 214	7.63	56.2	4 351	26.47	194.9
Daman and Diu	4 69	40.18	23.9		81.59	48.6	4 572	10.93	21.9	4 718	28.66	57.5
Southern Region	20 415 573	70859.20	74.2		71453.90	74.8	21 636 048	29634.94	80.0	21 637 541	29906.07	83.2
Andhra Pradesh	6 574 582	17503.58	79.4		17891.86	81.2	6 797 384	7535.68	80.4	6 797 984	7682.71	87.0
Karnataka	4 336 517	16489.42	70.0		16728.09	71.1	4 957 222	6901.59	82.2	4 960 168	7099.24	84.6
Kerala	3 362 548	8939.03	44.5		8988.57	44.7	4 133 274	4136.02	63.1	4 131 880	4133.77	63.1
Tamil Nadu	6 051 273	27624.85	94.9		27469.05	94.4	5 641 035	10907.32	96.2	5 640 117	10819.14	95.4
Lakshwadeep	1 671	3.98	15.5		4.45	17.3	1 744	1.33	16.8	1 751	1.52	19.2
Pondicherry	88 982	298.35	40.3		371.87	50.2	105 389	153.00	55.7	105 641	169.69	61.8
All India	56 672 429	254692.11	59.8		254692.11	59.8	53 850 686	104311.93	60.7	53 850 686	104311.93	60.7

* Includes Daman and Diu   not available   Credit deposit ratios are in percentages

Source: As in Table 2

Table 8: Distribution of Outstanding Credit of Scheduled Commercial Banks according to Occupation

(Amount in rupees crore)

Occupation	No of Accounts	Credit Limit Amount	Amount Outstanding	No of Accounts	Credit Limit Amount	Amount Outstanding	No of Accounts	Credit Limit Amount	Amount Outstanding
	March 1996			March 1995			March 1993		
I Agriculture (Direct, Indirect)	24,188,573	32,916	28809(11.3)	24,813,999	29,342	24948(11.8)	26,216,787	25399	22060(13.6)
II Industry	4,623,051	152,279	122260(48.0)	4,948,029	124,955	96211(45.6)	5,499,230	100661	78954(48.6)
1 Mining and Quarrying	12,456	2,472	19463(0.8)	12,409	2,433	1557(0.7)	10,755	1966	1489(0.9)
2 Food Manufacturing and Processing	122,057	12,605	10154(4.0)	127,775	10,164	7821(3.7)	123,939	7500	6002(3.7)
3 Textiles	132,801	25,839	20495(8.0)	130,078	19,972	16247(7.7)	108,646	13228	11304(7.0)
4 Paper, Paper Products and Printing	42,027	4,190	3454(1.4)	41,122	3,175	2643(1.3)	43,721	2591	2285(1.4)
5 Leather and Leather Products	15,247	2,464	2051(0.8)	14,790	2,274	1857(0.9)	13,205	1387	1164(0.7)
6 Rubber and Rubber Products	13,069	2,297	1880(0.7)	13,243	3,738	1642(0.8)	13,651	1779	1476(0.9)
7 Chemicals and Chemical Products	74,281	21,545	16810(6.6)	71,331	16,947	12873(6.1)	75,405	11450	9433(5.8)
8 Basic Metals and Metal Products	84,994	18,661	15192(6.0)	83,139	14,223	10774(5.1)	85,621	16099	10476(6.4)
9 Engineering	100,219	24,607	19701(7.7)	97,224	21,343	16509(7.8)	101,650	16361	13189(8.1)
10 Vehicles, Vehicle Parts and Transport equipment	30,737	5,938	4383(1.7)	30,906	3,956	2962(1.4)	26,596	3560	3050(1.9)
11 Other Industries	3,938,507	17,272	14578(5.7)	4,266,007	14,842	12486(5.9)	4,839,062	13316	11104(6.8)
12 Electricity, Gas and Water	11,343	3,123	2372(0.9)	13,835	2,851	1728(0.8)	12,197	4544	2074(1.3)
13 Construction	25,035	3,798	3451(1.4)	26,167	3,288	2886(1.4)	25,848	2863	2512(1.5)
III Transport Operations	1,103,665	5,543	4577(1.8)	1,164,393	4,863	3957(1.9)	1,387,169	4696	3743(2.3)
IV Personal Loans and Professional Services	2,769,658	27,726	23629(9.3)	10,490,977	27,294	23811(11.3)	10,868,642	21650	17838(11.0)
1 Professional Services*	2,435,662	10,788	9044(3.6)	1,140,369	1,534	1299(0.6)	1,421,058	1331	1124(0.7)
2 Other Services				1,650,527	4,257	3628(1.7)	1,982,515	3540	3182(2.0)
3 Loans for Purchase of Consumer Durables	701,457	1,020	881(0.3)	586,222	811	710(0.3)	561,736	909	798(0.5)
4 Loans for Housing	819,856	8,056	7114(2.8)	813,263	6,591	5882(2.8)	797,065	6518	5046(3.1)
5 Rest of the Personal Loans	8,248,345	18,650	15634(6.1)	6,300,596	14,102	12292(5.8)	6,106,268	9352	7685(4.7)
V Trade	9,246,430	42,134	35343(13.9)	9,896,308	41,123	36127(17.1)	10,739,433	29071	24871(15.3)
1 Retail Trade	8,884,963	14,443	12465(4.9)	9,514,379	12,106	10526(5.0)	10,313,223	9324	8268(5.1)
VI Financial Institutions	22,044	11,056	9013(3.5)	21,677	9,812	7951(3.8)	18,981	4866	3959(2.4)
1 Leasing/Hire Purchase and Finance Units	.	.	.	5,156	4,427	3542(1.7)	4,729	1638	1274(0.8)
2 Housing Finance Companies/ Corporations	..	..	..	439	791	711(0.3)	323	354	285(0.2)
VII Miscellaneous	5,283,346	26,136	22018(8.6)	6,761,721	20,394	17935(8.5)	7,385,974	12422	11035(6.8)
Total Bank Credit	56,672,429	308,579	254692(100.0)	58,097,104	257,782	210939(100.0)	62,116,216	198765	162457(100.0)
Of Which:									
1 Artisans and Village Industries	2,341,592	1,687	1504(0.6)	2,415,484	1,288	1130(0.5)	2,595,351	1195	1031(0.6)
2 Other Small-Scale Industries	1,752,054	31,297	25823(10.1)	1,946,931	25,495	21722(10.3)	2,070,868	21015	18264(11.2)
	March 1990			December 1980			December 1975		
I Agriculture (Direct, Indirect)	24,520,595	19313	16626(15.9)	10,339,615	4920	3722(15.7)	3,042,170	1493	1071(10.7)
II Industry	4,125,322	59762	50846(48.7)	837,313	17124	11555(48.8)	304,873	9009	5777(57.7)
1 Mining and Quarrying	8,858	982	877(0.8)	3,987	267	191(0.8)	1,985	188	132(1.3)
2 Food Manufacturing and Processing	94,534	5454	4288(4.1)	37,993	1737	955(4.0)	18,060	877	379(3.8)
3 Textiles	87,634	8611	7495(7.2)	54,963	2943	1983(8.4)	31,457	1619	1056(10.5)
4 Paper, Paper Products and Printing	36,906	1860	1623(1.6)	20,952	550	417(1.8)	10,103	255	178(1.8)
5 Leather and Leather Products	11,173	1093	1004(1.0)	5,117	234	169(0.7)	2,691	91	71(0.7)
6 Rubber and Rubber Products	11,853	1002	887(0.9)	6,458	320	245(1.0)	3,330	145	104(1.0)
7 Chemicals and Chemical Products	64,825	7493	6352(6.1)	43,149	2176	1410(6.0)	20,827	933	590(5.9)
8 Basic Metals and Metal Products	74,936	6166	5398(5.2)	45,392	1962	1324(5.6)	28,462	1070	755(7.5)
9 Engineering	88,135	10613	8926(8.6)	54,149	3454	2389(10.1)	27,082	1868	1231(12.3)
10 Vehicles, Vehicle Parts and Transport equipments	25,597	2667	2306(2.2)	13,991	855	550(2.3)	8,510	433	311(3.1)
11 Other Industries	3,577,835	8740	7384(7.1)	529,390	1065	767(3.2)	146,478	829	547(5.5)
12 Electricity, Gas and Water	2,773	1121	843(0.8)	702	291	125(0.5)	1,650	174	106(1.1)
13 Construction	23,431	1566	1438(1.4)	12,638	230	180(0.8)	5,477	90	70(0.7)
III Transport Operations	1,240,476	4146	3286(3.2)	378,273	1324	1078(4.6)	103,758	328	259(2.6)
IV Personal Loans and Professional Services	8,125,421	11200	9791(9.4)	1,344,474	637	527(2.2)	262,798	242	180(1.8)
1 Professional Services	1,592,015	1129	967(0.9)	187,091	115	93(0.4)	45,752	38	30(0.3)
2 Other Services	1,664,209	2413	2126(2.0)	1,157,383	522	433(1.8)	217,046	204	150(1.5)
3 Loans for Purchase of Consumer Durables	420,095	507	443(0.4)	.	.	.	..	..	.
4 Loans for Housing	547,114	2908	2536(2.4)	.	..	..	..	.	..
5 Rest of the Personal Loans	3,901,988	4243	3719(3.6)	..	..	.	..	..	.
V Trade	8,837,621	17121	14486(13.9)	1,886,767	7224	4653(19.7)	444,255	3252	1820(18.2)
1 Retail Trade	8,438,399	6319	5560(5.3)	1,735,156	1050	801(3.4)	360,391	385	263(2.6)
VI Financial Institutions	14,122	2708	2234(2.1)	2,267,767	937	810(3.4)	12,060	315	151(1.5)
1 Leasing/Hire Purchase and Finance Units	3,801	920	771(0.7)	..	..	..	..	..	..
2 Housing Finance Companies/ Corporations	186	144	134(0.1)	.	..	..	..	..	..
VII Miscellaneous	6,987,129	7405	7042(6.8)	3,194,086	1702	1328(5.6)	3,189,168	1064	81(7.6)
Total Bank Credit	53,850,686	121654	104312(100.0)	20,248,295	33867	23674(100.0)	7,359,082	15703	10015(100.0)
Of Which:									
1 Artisans and Village Industries	2,151,263	1061	926(0.9)	..	..	..	..	..	.
2 Other Small-Scale Industries	1,606,146	14098	11986(11.5)	668,570	3709	2844(12.0)	262,301	1773	1178(11.8)

.. not available Figures in brackets are percentages to total bank credit * Figures for professional services and other services are combined for March 1996.
Source: As in Table 2

Table 9: Distribution of Bank Credit by Occupation and by Population Group

Occupation	Total Bank Credit Amount Outstanding (Rupees crore)					Centrewise Distribution of Total Credit of Each Occupation (Per Cent)					Occupationwise Distribution of Total Credit of Each Centre (Per Cent)			
	Rural	Semi urban	Urban	Metro-politan	Total	Rural	Semi-urban	Urban	Metro politan	Total	Rural	Semi urban	Urban	Metro-politan
March 1996														
I Agriculture	14890.80	8451.69	2736.56	2729.90	28808.95	51.7	29.3	9.5	9.5	100.0	38.6	22.9	6.2	2.0
1 Direct Finance	13873.90	7665.48	2024.07	992.69	24556.14	56.5	31.2	8.2	4.0	100.0	35.9	20.8	4.6	0.7
2 Indirect Finance	1016.91	786.20	712.49	1737.22	4252.82	23.9	18.5	16.8	40.8	100.0	2.6	2.1	1.6	1.3
II Industry	10632.22	13104.80	22783.74	75738.76	122259.52	8.7	10.7	18.6	61.9	100.0	27.5	35.5	51.3	56.2
1 Food Manufacturing and Processing														
2 Vehicles, Vehicle Parts and Transport equipment														
3 Construction	93.46	226.56	414.02	2717.16	3451.20	2.7	6.6	12.0	78.7	100.0	0.2	0.6	0.9	2.0
III Transport Operations	1194.24	1297.75	947.20	1138.29	4577.48	26.1	28.4	20.7	24.9	100.0	3.1	3.5	2.1	0.8
IV Personal Loans and Professional Services	4474.94	6661.05	7522.88	14014.22	32673.09	13.7	20.4	23.0	42.9	100.0	11.6	18.1	16.9	10.4
V Trade	5350.12	4795.05	5995.90	19201.48	35342.55	15.1	13.6	17.0	54.3	100.0	13.9	13.0	13.5	14.2
1 Wholesale Trade	2131.31	1369.87	3204.59	16171.48	22877.25	9.3	6.0	14.0	70.7	100.0	5.5	3.7	7.2	12.0
2 Retail Trade	3218.81	3425.18	2791.31	3030.00	12465.30	25.8	27.5	22.4	24.3	100.0	8.3	9.3	6.3	2.2
VI Financial Institutions	137.18	324.44	586.57	7964.47	9012.66	1.5	3.6	6.5	88.4	100.0	0.4	0.9	1.3	5.9
VII All Others	1934.01	2255.73	3824.45	14003.67	22017.86	8.8	10.2	17.4	63.6	100.0	5.0	6.1	8.6	10.4
Total Bank Credit	38613.51	36890.50	44397.31	134790.79	254692.11	15.2	14.5	17.4	52.9	100.0	100.0	100.0	100.0	100.0
Of Which														
1 Artisans and Village Industries	784.08	399.80	213.30	106.47	1503.65	52.1	26.6	14.2	7.1	100.0	2.0	1.1	0.5	0.1
2 Other Small Scale Industries	2548.53	4630.72	7192.92	11450.52	25822.69	9.9	17.9	27.9	44.3	100.0	6.6	12.6	16.[illegible]	8.5
March 1995														
I Agriculture	13158.96	7723.47	2579.98	1485.61	24948.02	52.7	31.0	10.3	6.0	100.0	39.2	24.3	5.5	1.5
1 Direct Finance	12103.79	6873.87	1831.80	611.05	21420.51	56.5	32.1	8.6	2.9	100.0	36.1	21.6	3.9	0.6
2 Indirect Finance	1055.17	849.60	748.18	874.56	3527.51	29.9	24.1	21.2	24.8	100.0	3.1	2.7	1.6	0.9
II Industry	9132.10	10979.20	24551.31	51548.32	96210.93	9.5	11.4	25.5	53.6	100.0	27.2	34.5	52.3	52.2
1 Food Manufacturing and Processing	1136.21	1831.21	2369.13	2484.84	7821.39	14.5	23.4	30.3	31.8	100.0	3.4	5.8	5.1	2.5
2 Vehicles, Vehicle Parts and Transport equipment	288.44	253.95	886.87	1532.80	2962.06	9.7	8.6	29.9	51.7	100.0	0.9	0.8	1.9	1.6
3 Construction	107.93	230.82	462.80	2084.59	2886.14	3.7	8.0	16.0	72.2	100.0	0.3	0.7	1.0	2.1
III Transport Operations	945.81	1126.58	1021.41	863.10	3956.90	23.9	28.5	25.8	21.8	100.0	2.8	3.5	2.2	0.9
IV Personal Loans and Professional Services	3236.19	5062.07	7056.56	8455.74	23810.56	13.6	21.3	29.6	35.5	100.0	9.7	15.9	15.0	8.6
V Trade	5023.67	4304.01	6391.01	20408.23	36126.92	13.9	11.9	17.7	56.5	100.0	15.0	13.5	13.6	20.7
1 Wholesale Trade	2112.72	1423.53	3626.73	18437.89	25600.87	8.3	5.6	14.2	72.0	100.0	6.3	4.5	7.7	18.7
2 Retail Trade	2910.95	2880.48	2764.28	1970.34	10526.05	27.7	27.4	26.3	18.7	100.0	8.7	9.1	5.9	2.0
VI Financial Institutions	73.26	297.56	586.08	6994.33	7951.23	0.9	3.7	7.4	88.0	100.0	0.2	0.9	1.2	7.1
VII All Others	1959.17	2314.42	4722.44	8938.53	17934.56	10.9	12.9	26.3	49.8	100.0	5.8	7.3	10.1	9.1
Total Bank Credit	33529.16	31807.32	46908.79	98693.85	210939.12	15.9	15.1	22.2	46.8	100.0	100.0	100.0	100.0	100.0
Of Which														
1 Artisans and Village Industries	670.74	306.89	138.85	13.24	1129.72	59.4	27.2	12.3	1.2	100.0	2.0	1.0	0.3	0.0
2 Other Small Scale Industries	2231.55	3866.15	7901.74	7722.51	21721.95	10.3	17.8	36.4	35.6	100.0	6.7	12.2	16.8	7.8
March 1993														
I Agriculture	11856	6669	2267	1267	22059	53.75	30.23	10.28	5.74	100.00	39.02	26.29	6.80	1.73
1 Direct Finance	11063	6042	1612	764	19482	56.79	31.01	8.28	3.92	100.00	36.41	23.81	4.84	1.05
2 Indirect Finance	792	627	655	503	2577	30.74	24.35	25.41	19.50	100.00	2.61	2.47	1.97	0.69
II Industry	9544	8641	17353	43425	78963	12.09	10.94	21.98	54.99	100.00	31.41	34.06	52.07	59.40
1 Food Manufacturing and Processing	855	1365	1792	1994	6006	14.23	22.73	29.84	33.20	100.00	2.81	5.38	5.38	2.73
2 Vehicles, Vehicle Parts and Transport equipment	478	115	785	1435	2813	17.00	4.09	27.89	51.02	100.00	1.57	0.45	2.35	1.96
3 Construction	80	228	388	1814	2510	3.21	9.06	15.47	72.26	100.00	0.26	0.90	1.17	2.48
III Transport Operations	891	972	1002	881	3746	23.80	25.94	26.74	23.52	100.00	2.93	3.83	3.01	1.21
IV Personal Loans and Professional Services	2614	3732	4924	6560	17830	14.66	20.93	27.62	36.79	100.00	8.60	14.71	14.78	8.97
V Trade	3752	3262	4440	13419	24873	15.08	13.12	17.85	53.95	100.00	12.35	12.86	13.32	18.36
1 Wholesale Trade	994	1037	2468	12102	16600	5.99	6.25	14.87	72.90	100.00	3.27	4.09	7.41	16.55
2 Retail Trade	2576	2225	1972	1317	8272	31.14	26.90	23.84	15.92	100.00	8.48	8.77	5.92	1.80
VI Financial Institutions	74	210	493	3183	3960	1.86	5.30	12.45	80.39	100.00	0.24	0.83	1.48	4.35
VII All Others	1651	1878	3132	4370	11027	14.98	17.03	28.40	39.63	100.00	5.43	7.40	9.40	5.98
Total Bank Credit	30384	25372	33324	73105	162458	18.70	15.62	20.51	45.00	100.00	100.00	100.00	100.00	100.00
Of Which														
1 Artisans and Village Industries	616	260	99	17	992	62.06	26.21	9.99	1.71	100.00	2.03	1.03	0.30	0.02
2 Other Small Scale Industries	2226	3148	5955	6729	18058	12.33	17.43	32.98	37.26	100.00	7.32	12.41	17.87	9.20

denotes not available

Source: Banking Statistics, *Basic Statistical Returns* (various issues)

Table 10: Distribution of Outstanding Credit of Scheduled Commercial Banks According to (A) Size of Credit Limit, (B) Interest Rate and (C) Organisation

(Rupees crore)

	March 1996			March 1995			December 1985			December 1975		
	Number of Accounts	Credit Limit	Amount Outstanding	Number of Accounts	Credit Limit	Amount Outstanding	Number of Account	Credit Limit	Amount Outstanding	Number of Accounts	Credit Limit	Amount Outstanding
A According to Credit Limit												
Rs 25000 and less	5190468	[illegible]	36253(14 2)	[illegible]	37350	34060(16 2)	[illegible]	13113	11236(21 5)	6754036 #	1235 #	985 #(9 8)
Above Rs 25000 and upto Rs 50000	1801240	[illegible]	6355(2 5)	1617602	5700	5200(2 5)						
Above Rs 50000 and upto Rs 1 lakh	1134492	[illegible]	7864(3 1)	1015708	8063	6898(3 3)	1113618	6190	5164(9 9)	501636	1830	1287(12 8)
Above Rs 1 lakh and upto Rs 2 lakhs	1055736	[illegible]	13886(5 4)	912965	13480	11784(5 6)						-
Above Rs 2 lakhs and upto Rs 5 lakhs	442205	[illegible]	12570(4 9)	377740	12705	10942(5 2)	344274	7514	5814(11 1)	74411	1804	1102(11 0)
Above Rs 5 lakhs and upto Rs 10 lakhs	124675	[illegible]	8245(3 2)	104024	7961	6917(3 3)	40558	3106	2286(4 4)	11876	936	599(6 0)
Above Rs 10 lakhs and upto Rs 25 lakhs	101526	[illegible]	13805(5 4)	71607	12168	10366(4 9)	27131	4580	3454(6 6)	5539	1495	944(9 4)
Above Rs 25 lakhs and upto Rs 50 lakhs	47304	17496	12435(4 9)	34501	12946	10535(5 0)	[illegible]	4462	3349(6 4)	3556	1345	821(8 2)
Above Rs 50 lakhs and upto Rs 1 crore	25755	19581	15609(6 1)	21529	16332	13342(6 3)	6045	4468	3390(6 5)	1972	1511	926(9 2)
Above Rs 1 crore and upto Rs 4 crore	25487	52613	42416(16 7)	19462	39714	31999(15 2)	4212	8053	5923(11 3)			
Above Rs 4 crore and upto Rs 6 crore	4209	[illegible]	16037(6 3)	3076	15376	11707(5 6)	[illegible]	1862	1315(2 5)			-
Above Rs 6 crore and upto Rs 10 crore	2927	[illegible]	18170(7 1)	2150	17392	13065(6 2)	279	2220	1368(2 6)	1471	3578	2179(21 8)
Above Rs 10 crore	2209	62640	51067(20 1)	1787	58596	44126(20 9)	[illegible]	10595	8929(17 1)	76	1970	1147(11 5)
Total	56672429	[illegible]	254692(100 0)	55097104	257783	210939(100 0)	36411734	66163	52228(100 0)	7359082	15703	10015(100 0)
B According to Interest Rate Range												
Less than 6 per cent	253791	2687	2413(1 3)	152270	4045	3501(2 3)	91997	751	596(1 8)	22864	148	106(1 5)
6 per cent and above but less than 10 per cent	46968	[illegible]	1528(0 8)	70717	4235	3257(2 1)	66281	1588	1144(3 4)	35203	338	216(3 0)
10 per cent and above but less than 12 per cent	146448	[illegible]	2859(1 5)	192224	4171	3528(2 3)	112972	3742	2498(7 4)	79419	2013	1134(15 8)
12 per cent and above but less than 14 per cent	643134	26898	21457(11 1)	623032	20959	16234(10 6)	737404	13272	11307(33 5)	116707	1341	958(13 4)
14 per cent and above but less than 15 per cent	1471058	18209	15648(8 1)	797437	12026	10347(6 7)	117920	3557	3017(9 0)	71718	2686	1843(25 7)
15 per cent and above but less than 16 per cent	695073	21145	17500(9 1)	1061261	38361	31213(20 3)	[illegible]	1598	1101(3 3)	66673	2423	1566(21 9)
16 per cent and above but less than 17 per cent	227558	[illegible]	15178(7 9)	356116	34119	26619(17 3)	76908	4256	3252(9 6)	58986	1111	720(10 0)
17 per cent and above but less than 18 per cent	562015	43177	34887(18 1)	[illegible]	28402	23880(15 6)	212406	13369	10133(30 1)	57466	667	443(6 2)
18 per cent and above but less than 20 per cent	355196	[illegible]	43301(22 5)	[illegible]	28658	22262(14 5)	15329	809	657(1 9)	14083	175	113(1 6)
20 per cent and above	283702	44649	38016(19 7)	154357	14392	12676(8 3)	@	@	@	@	@	@
Total	4684943	[illegible]	192787(100 0)	4100909	189367	153518(100 0)	1469644 *	42942 *	33705*(100 0)	527319 *	10983 *	7165*(100 0)
C According to Organisation												
Public Sector	26651	[illegible]	25838(11 8)	23631	32887	25887(14 6)	11004	136440	11421(27 9)	4186	3360	2062(22 8)
Central Government owned undertakings	14861	21517	18504(8 5)	12202	24567	19713(11 1)	3171	9960	8738(21 3)	2186	2089	1392(15 4)
State Government	[illegible]	1052	716(0 3)	1541	1159	675(0 4)	512	317	364(0 9)	168	371	175(1 9)
State Government owned undertakings	[illegible]	5129	3876(1 8)	5647	40100	3286(1 9)	3631	2182	1578(3 8)	1008	647	338(3 7)
Quasi Government Bodies	[illegible]	3756	2743(1 3)	4241	3061	2212(1 3)	3690	1185	741(1 8)	824	254	158(1 7)
Co-operative Sector	[illegible]	[illegible]	2842(1 3)	35703	4139	3078(1 7)	17909	907	584(1 4)	6486	314	165(1 8)
Private Sector	[illegible]	[illegible]	155877(71 4)	1014845	146890	116411(65 8)	660777	31587	23429(57 2)	383786	10036	6196(68 6)
Public and private limited companies not owned but managed by Government	762	2903	2437(1 1)	5056	2183	1820(1 0)	1950	662	528(1 3)	896	241	180(2 0)
Public and private limited companies other than Government owned and/or managed companies and corporations	31052	[illegible]	92992(42 5)	117717	90943	69877(39 5)	73881	17342	12709(31 0)	46131	6216	3896(43 1)
Partnership Proprietary concerns Joint families, Associations Clubs Societies Trusts and Groups	[illegible]	[illegible]	60448(27 7)	[illegible]	[illegible]	44714(25 3)	584941	13583	10192(24 9)	336759	3580	2120(23 5)
Joint Sector Undertakings	1432	619	350(0 2)	1730	609	436(0 3)	651	138	94(0 2)			
Individuals	3269435	[illegible]	33349(15 3)	3104737	35582	30875(17 5)	858164	6704	5406(13 2)	210566	757	606(6 7)
Total	4767771	[illegible]	218439(100 0)	4182181	220432	176879(100 0)	1548625	53051	40992(100 0)	605046	14468	9030(100 0)

denotes not available # Lowest credit limit is for Rs 10 000 and less Total excludes inland and foreign bills purchased and rediscounted
- denotes that data are included in the next credit limit interest range except for @ where it is included in the previous interest range
Figures in brackets are percentage to total
Source As in Table 2

Table 11: Distribution of Outstanding Bank Credit of Scheduled Commercial Banks, by Organisation and Variations During Specified Periods

(Amount in rupees crore)

Organisation (Institutional Categories)	March 1996 No of Accounts	March 1996 Credit Limit Amount	March 1996 Amount Outstanding	March 1995 No of Accounts	March 1995 Credit Limit Amount	March 1995 Amount Outstanding	March 1994 No of Accounts	March 1994 Credit Limit Amount	March 1994 Amount Outstanding
1 Household Sector *	56481628	152312	130051	57911732	126705	109648	59435658	113147	94920
	(99.7)	(49.4)	(51.1)	(99.7)	(49.2)	(52.0)	(99.6)	(52.1)	(54.0)
2 Private Corporate Sector **	158052	123906	98271	158476	97264	74775	173242	69477	52726
	(0.3)	(40.2)	(38.6)	(0.3)	(37.8)	(35.5)	(0.3)	(32.9)	(30.1)
3 Public Sector ***	28083	32102	26188	25361	33496	26323	41640	34541	28119
	(0.0)	(10.4)	(10.3)	(0.0)	(13.0)	(12.5)	(0.0)	(16.0)	(16.1)
Total (1+2+3) ****	56667763	308320	254510	58095569	257466	210746	59650540	217165	175765
	March 1993			**March 1992**			**March 1991**		
1 Household Sector *	61928807	100740	86863	65684033	90698	77252	61789615	84211	71252
	(99.7)	(50.7)	(53.5)	(99.7)	(56.5)	(56.5)	(99.7)	(57.5)	(57.4)
2 Private Corporate Sector **	163705	67116	54949	152210	53169	45291	133620	45971	39249
	(0.3)	(33.8)	(33.8)	(0.2)	(33.1)	(33.1)	(0.2)	(31.4)	(31.6)
3 Public Sector ***	23633	30805	20580	24228	16662	14073	23253	16205	13569
	(0.0)	(15.5)	(12.7)	(0.0)	(10.4)	(10.3)	(0.0)	(11.1)	(10.9)
Total (1+2+3) ****	62116396	198765	162467	65860730	160643	136706	61946755	146547	124203
	March 1990			**March 1985 (December 1984 June 1985)**			**March 1980 (December 1979 June 1980)**		
1 Household Sector *	537076658	70198	60816	32494758	32203	24945	17790476	12034	9087
	(99.7)	(57.7)	(58.3)	(99.7)	(51.4)	(51.9)	(99.5)	(40.5)	(43.3)
2 Private Corporate Sector **	123018	38323	32657	90588	17418	12175	79573	10625	6895
	(0.2)	(31.5)	(31.3)	(0.3)	(27.8)	(25.3)	(0.4)	(35.8)	(32.9)
3 Public Sector ***	19577	12909	10627	10753	13031	10890	5745	7028	4993
	(0.0)	(10.6)	(10.2)	(0.0)	(20.8)	(22.7)	(0.0)	(23.7)	(23.8)
Total (1+2+3) ****	53850686	121654	104312	32596207	62696	48035	17875793	29687	20975

Variations During

Organisation (Institutional Categories)	Mar 1991 to Mar 1996 Credit Limit Amount	Mar 1991 to Mar 1996 Credit Limit Per Cent	Mar 1991 to Mar 1996 Amount Outstanding Amount	Mar 1991 to Mar 1996 Amount Outstanding Per Cent	Mar 1985 to Mar 1991 Credit Limit Amount	Mar 1985 to Mar 1991 Credit Limit Per Cent	Mar 1985 to Mar 1991 Amount Outstanding Amount	Mar 1985 to Mar 1991 Amount Outstanding Per Cent	Mar 1980 to Mar 1985 Credit Limit Amount	Mar 1980 to Mar 1985 Credit Limit Per Cent	Mar 1980 to Mar 1985 Amount Outstanding Amount	Mar 1980 to Mar 1985 Amount Outstanding Per Cent
1 Household Sector*	68101	80.9	58799	82.5	52008	161.5	46307	185.6	20169	167.6	15857	174.5
2 Private Corporate Sector**	77935	169.5	59022	150.4	28553	163.9	27074	222.4	6793	63.9	5280	76.6
3 Public Sector***	15897	98.1	12619	93.0	3174	24.4	2679	24.6	6002	85.4	5897	118.1
Total (1+2+3)****	161773	110.4	130307	104.9	83851	133.7	76168	158.6	33009	111.2	27060	129.0

Figures in brackets are percentages to total

* Household sector includes Partnership Proprietary concerns Joint Families Associations, Clubs, Societies Trusts Groups and Individuals for all accounts with credit limit of Rs 25 000 and above and also all accounts with credit limit of Rs 25 000 and less

** Private Corporate Sector includes Private Sector and Co operative Sector, excluding Partnership Proprietary concerns Joint Families, Associations, Clubs, Societies Trusts and Groups

*** Public Sector includes Joint Sector Undertakings

**** Totals are as per source but they contain small discrepancies which could not be reconciled

Source RBI Banking Statistics, Basic Statistical Returns various issues

Table 12: Deposit and Working Funds by Bank Groups and Major Banks

(Rupees crore)

Name of the Bank	Deposits in India							Working Funds						
	1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92	1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92
A Public Sector Banks	504064(81.7)	426465(82.8)	368348(84.7)	[illegible]	[illegible]	[illegible]	[illegible]160(88.0)	649186(81.5)	556296(82.7)	505845(84.5)	439459(86.4)	379081(87.1)	336758(87.3)	301962(88.6)
I State Bank Group	166060(26.9)	140959(27.4)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	204355(30.4)	[illegible]	[illegible]	[illegible]	124642(32.3)	115395(33.9)
State Bank of India	123549(20.0)	103767(20.2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	144470(24.1)	121996(24.0)	[illegible]	100515(26.1)	95079(27.9)
SBI Associates	42512(6.9)	37191(7.2)	[illegible]	7605(7.2)	[illegible]298(7.0)	18868(6.7)	[illegible]	[illegible]	[illegible]	42298(7.1)	[illegible]	[illegible]	24127(6.3)	20316(6.0)
State Bank of Patiala	7737	7129	6711	5289	4497	3421	[illegible]	9640	8672	8349	6551	5636	4888	3774
State Bank of Hyderabad	8649	7738	6092	5564	4818	[illegible]	[illegible]	[illegible]	9429	8145	7081	6364	4889	402[illegible]
State Bank of Travancore	7468	6464	5421	4790	3997	[illegible]	2736	[illegible]	7790	6646	5980	4942	3918	3451
State Bank of Bikaner and Jaipur	6525	5398	4660	4010	3430	926	[illegible]	8523	8143	6572	5235	4291	3646	318[illegible]
State Bank of Mysore	4769	4366	3798	3281	267[illegible]	[illegible]	79[illegible]	5863	5448	4742	3904	3386	2760	239[illegible]
State Bank of Saurashtra	3995	3700	3145	2619	2127	1709	1591	5204	4920	4666	3175	2531	2123	1770
State Bank of Indore	3369	2707	2465	2056	1769	1459	1266	4093	3480	3119	2643	2192	1902	1721
II 19 Nationalised Banks	338004(54.8)	285506(55.4)	[illegible]	221018([illegible])	189538([illegible])	163895([illegible])	142757(59.0)	416439(52.3)	351923(52.5)	319077(53.3)	292914([illegible])	238207(54.7)	212116(55.0)	186567(54.7)
Bank of Baroda	33536	[illegible]799	24518	22762	19565	17344	[illegible]	45841	37640	[illegible]	31254	27235	[illegible]4130	2137[illegible]
Bank of India	[illegible]	[illegible]	16[illegible]	89[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]0159	[illegible]	[illegible]	[illegible]
Punjab National Bank	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Canara Bank	[illegible]6981	[illegible]568	25471	21916	19423	15862	[illegible]800	[illegible]	[illegible]	3112	26399	22984	20482	[illegible]
Central Bank of India	26373	23051	[illegible]752	17655	15967	13824	130[illegible]8	30518	26393	23203	20669	18141	15820	1440[illegible]
Union Bank of India	23056	[illegible]0005	17892	15403	1801	9309	7929	[illegible]	22395	20516	17057	12999	10330	878[illegible]
Indian Overseas Bank	18763	14861	13193	11324	9185	7728	6397	21432	17928	18079	15996	13132	10784	939[illegible]
Indian Bank	14120	131[illegible]6	11735	1[illegible]053	10553	9162	7522	19454	17033	17793	15496	13752	14760	1104[illegible]
Syndicate Bank	15510	13877	11843	10977	9394	8189	7124	19475	17514	15553	14297	12100	9952	843[illegible]
UCO Bank	12639	10829	9606	8654	7750	7432	6794	18586	16344	15503	13312	11543	12488	11861
Allahabad Bank	13541	11541	10149	9231	8458	7692	6648	15153	13169	12420	11183	9681	8817	775[illegible]
United Bank of India	23056	10346	8790	8042	6992	6151	5367	4391	12742	10812	9686	8307	7444	637[illegible]
Oriental Bank of Commerce	13058	10054	8711	6673	5239	4277	3599	[illegible]4782	11559	10524	8237	5995	4743	399[illegible]
Dena Bank	10115	7861	6476	5779	4924	4144	3424	12264	9714	8246	7254	6116	5055	410[illegible]
Vijaya Bank	8216	6827	5989	5870	4295	3307	2735	9440	8054	7224	6687	4808	3764	311[illegible]
Bank of Maharashtra	9134	7365	5971	5342	4484	3874	3374	10656	8767	7799	6892	5554	4689	4151
Andhra Bank	7921	7091	5967	5412	4941	4188	3861	9231	8260	7087	6330	5679	4740	435[illegible]
Punjab and Sind Bank	7610	6380	5877	5277	4025	3391	2857	9031	7593	7237	6313	4827	3869	3341
Corporation Bank	9352	6673	5734	6136	4118	2854	2347	11214	8154	6905	7101	4637	3174	2661
B Private Sector Banks (34)*	69516(11.3)	51039(9.9)	36018(8.3)	26258(6.9)	19985(6.0)	15232(5.4)	12083(5.0)	81061(10.2)	60616(9.0)	45646(7.6)	31017(6.1)	22769(5.2)	17807(4.6)	14170(4.2)
I Private Sector Banks (25)*	47778(7.7)	37947(7.4)	30069(6.9)	26257(6.9)	19984(6.0)	15231(5.4)	12082(5.0)	55205(6.9)	44457(6.6)	36621(6.1)	31017(6.1)	22769(5.2)	17807(4.6)	14170(4.2)
The Vysya Bank	5749	5069	4301	5188	3619	2539	1536	6614	5992	5262	6163	4035	5022	177[illegible]
The Federal Bank	6424	4603	3697	2791	24[illegible]3	1718	1491	7511	5462	4360	3324	2712	1952	164[illegible]
The Jammu and Kashmir Bank	4882	3658	2895	2378	2069	1890	548	5596	4234	3472	2750	2347	2126	189[illegible]
Bank of Rajasthan	2827	2939	2507	2035	1552	1206	1063	3144	3406	3116	2433	1804	1415	122[illegible]
Karnataka Bank	3408	2511	1855	1334	1062	844	73[illegible]	3860	2894	2279	1577	1249	991	86[illegible]
The South Indian Bank	2738	2097	1724	1516	125[illegible]	1000	758	3064	2368	2055	1736	1382	1096	82[illegible]
The United western Bank	2668	2044	1623	1432	1104	826	650	2977	2306	1876	1634	1214	946	74[illegible]
II New Private Sector Banks (9)*	21738(3.5)	13092(2.5)	5937(1.4)					25856(3.2)	16159(2.4)	9025(1.5)				
C Foreign Banks (42)*	43447(7.0)	37394(7.3)	30630(7.0)	28034(7.3)	25897(7.8)	20875(7.4)	16898(7.0)	66321(8.3)	55874(8.3)	47540(7.9)	37929(7.5)	33790(7.7)	31230(8.1)	24656(7.2)
Citi Bank NA	7551	7204	6775	6091	6258	5009	4261	10798	9652	8643	7508	7384	6633	660[illegible]
ANZ Grindlays Bank	7764	6211	5231	4622	4547	[illegible]446	5616	10114	9153	7645	6627	6057	6149	490[illegible]
Hongkong Bank	5493	4527	3844	3401	2675	[illegible]909	417	7418	5792	5216	4358	3567	2731	234[illegible]
Standard Chartered Bank	4807	4191	2739	2164	[illegible]	[illegible]323	1562	6390	5611	4194	3152	3378	5300	268[illegible]
American Express Bank	1981	1941	2315	2449	2193	[illegible]569	1337	322[illegible]	2545	3024	3194	2885	2329	168[illegible]
Bank of America NT & SA	3860	3159	1927	2163	17[illegible]4	1556	1741	6946	5252	3844	2782	2217	1939	1841
Total (103 Banks in 1997-98)	617027	514895	434786	38[illegible]220	33074	281011	242141	796568	672786	598921	508409	435141	385773	34077[illegible]
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Notes: Figures in brackets are percentage to total. @ negligible. * including all others. not available.

Source: *IBA Bulletin*, Indian Banks Association, various special issues; Respective bank annual reports for 1996-97.

Table 13: Assets and Asset Components by Bank Groups and Major Banks: Investments

(Rupees crore)

Name of the Bank	Total Assets 1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	Investments in India – Government Securities 1997-98	1996-97	1995-96	1994-95	1993-94	1992-9
A Public Sector Banks	683493(81.7)	594764(82.5)	532683(84.3)	461613(86.2)	398975(87.1)	352690(87.2)	153914(83.1)	132789(84.7)	111122(86.7)	99538(87.2)	89496(86.7)	65150(86
I State Bank Group	244710(29.3)	221283(30.7)	194937(30.9)	164111(30.6)	147419(32.2)	128608(31.8)	52492(28.3)	45405(29.0)	39385(30.7)	36624(32.1)	33289(32.3)	24017(31.9
State Bank of India	188319(22.5)	170189(23.6)	150266(23.8)	127121(23.7	116405(25.4)	103278(25.5)	39025(21.1)	33973(21.7)	30507(23.8)	28743(25.2)	26628(25.8)	19253(25.6
7 SBI associates	56391(6.7)	51094(7.1)	44671(7.1)	36990(6.9)	31014(6.8)	25330(6.3)	13468(7.3)	11432(7.3)	8878(6.9)	7881(6.9)	6661(6.5)	4764(6.3
State Bank of Patiala	10073	9032	8621	6756	5854	5080	2033	1941	1533	1447	1084	71
State Bank of Hyderabad	11332	10043	8482	7390	6642	5042	2880	2320	1638	1588	1278	108
State Bank of Travancore	9818	8575	7107	6521	5198	4124	2711	2133	1424	1351	1245	77
State Bank of Bikaner and Jaipur	8882	8493	6952	5570	4577	3825	2050	1638	1292	1181	947	65
State Bank of Mysore	5889	5517	4812	3951	3432	2817	1386	1307	1060	930	893	62
State Bank of Saurashtra	5964	5680	5269	3856	2973	2406	1199	1190	1207	779	711	47
State Bank of Indore	4433	3754	3428	2945	2338	2037	1209	903	724	605	505	45
II 19 Nationalised Banks	438784(52.5)	373482(51.8)	337746(53.5)	297502(55.5)	251556(54.9)	224083(55.4)	101422(54.8)	87384(55.7)	71736(56.0)	62914(55.1)	56206(54.5)	41134(54.6
Bank of Baroda	49888	41419	37593	33542	29356	25791	8342	6842	6179	5045	4742	384
Bank of India	49493	41076	35671	32003	27478	25164	7929	7052	6271	5942	5174	400
Punjab National Bank	41920	36756	32855	29680	26366	24913	10106	8974	7538	6750	6163	440
Canara Bank	45748	38033	33316	28201	24318	21646	9394	6824	5548	4946	4430	311
Central Bank of India	31583	27541	24250	21566	18877	16337	9537	9242	5678	5114	4280	335
Union Bank of India	27478	23840	21681	17948	13631	16685	6146	5348	4359	3980	3757	251
Indian Overseas Bank	22382	19032	18858	16615	13753	11276	5625	5016	4444	3772	3729	2271
Indian Bank	20878	18682	19290	16721	14837	15721	5608	3994	3522	3199	2639	2611
Syndicate Bank	20192	18255	16243	14850	12556	10446	5320	5293	4453	3913	3495	2234
UCO Bank	18675	17206	16330	14068	12523	13192	4696	4473	3990	3321	2933	2218
Allahabad Bank	15739	13843	12913	11514	10083	9208	4188	3154	2520	2058	2172	155
United Bank of India	14714	12976	11043	9884	8491	7635	5222	4729	3543	3002	2476	201
Oriental Bank of Commerce	15510	12155	11160	8694	6354	5031	2965	2760	2390	1879	1869	114
Dena Bank	12723	10015	8673	7495	6292	5200	2976	2503	2004	1837	1775	134
Vijaya Bank	9844	8373	7485	6894	5030	3964	2879	2420	2151	1754	1350	107
Bank of Maharashtra	11136	9181	8169	7197	5792	4914	3446	2713	2226	1884	1631	117
Andhra Bank	9612	8596	7423	6735	5979	4990	2683	2302	1887	1595	1383	95
Punjab and Sind Bank	9421	7910	7504	6526	4979	4017	2246	2032	1649	1413	1041	75
Corporation Bank	11813	8610	7289	7369	4862	3402	2114	1713	1383	1510	1167	541
B Private Sector Banks (34)*	86577(10.4)	64822(9.0)	48871(7.7)	34470(6.4)	24373(5.3)	18971(4.7)	17121(9.2)	12751(8.1)	8298(6.5)	6304(5.5)	5073(4.9)	3712(4.9
I Private Sector Banks (25)*	58726(7.0)	47496(6.6)	39299(6.2)	34468(6.4)	24371(5.3)	18970(4.7)	11581(6.3)	9483(6.0)	7003(5.5)	6304(5.5)	5072(4.9)	3712(4.9
The Vysya Bank	7608	6904	6100	8194	4638	3422	1212	1479	1054	1289	1176	57
The Federal Bank	7592	5661	4484	3444	2788	2006	1534	986	887	728	567	534
The Jammu and Kashmir Bank	5723	4393	3604	2846	2458	2208	1418	1212	790	612	455	401
Bank of Rajasthan	3729	3696	3397	2633	1929	1521	629	606	473	373	246	213
Karnataka Bank	4050	3053	2514	1739	1367	1049	946	573	394	301	256	231
The South Indian Bank	3126	2412	2096	1779	1414	1126	654	499	339	339	309	224
The United Western Bank	3263	2431	2060	1785	1297	1003	609	460	364	333	254	224
II New Private Sector Banks (9)*	27850(3.3)	17325(2.4)	9569(1.5)				5540(3.0)	3268(2.1)	1294(1.0)			
C Foreign Banks (42)*	66398(7.9)	61131(8.5)	50210(7.9)	39596(7.4)	34847(7.6)	32688(8.1)	13919(7.5)	11290(7.2)	8756(6.8)	8324(7.3)	8603(8.3)	6421(8.5)
Citi Bank NA	10798	9727	8712	7535	7430	6706	2107	1809	1549	1457	1776	1293
ANZ Grindlays Bank	10114	10094	8217	6975	6341	6498	2366	1932	1548	1718	1836	1645
Hongkong Bank	7418	6347	5466	4593	3504	2895	1663	1268	963	895	887	434
Standard Chartered Bank	6399	5699	4316	3298	3543	5393	1214	1225	727	627	868	1107
American Express Bank	3222	2626	3131	3347	2998	2436	673	630	746	766	843	290
Bank of America NT and SA	6946	5276	4220	1968	2329	1968	1694	998	692	693	520	438
Total (103 Banks in 1997-98)	836468(100.0)	721717(100.0)	631764(100.0)	535679(100.0)	458195(100.0	404349(100.0)	185210(100.0)	156830(100.0)	128176(100.0)	114166(100.0)	103171(100.0)	75284(100.0)

Table 13: Assets and Asset Components by Bank Groups and Major Banks: Investments *(Concluded)*

(Rupees crore)

	Name of the Bank	Investments in India Other Approved Securities 1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92	Investments in India Shares 1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92
A	Public Sector Banks	27069(94.4)	27633(94.5)	28773(94.8)	29317(95.2)	28960(94.7)	27905(94.8)	25827(93.7)	2641	1750(89.1)	1607(88.5)	1358(90.6)	622(91.5)	495(93.9)	350(94.6)
I	State Bank Group	9043(31.5)	9294(31.8)	9755(32.1)	9845(32.0)	9676(31.7)	9233(31.4)	8242(29.9)	855	544(27.7)	490(27.0)	311(20.7)	135(19.8)	107(20.3)	77(20.8)
	State Bank of India	7158(25.0)	7472(25.5)	7873(25.9)	7905(25.7)	7811(25.6)	7487(25.4)	6674(24.2)	694	448(22.8)	413(22.8)	238(15.9)	100(14.7)	79(15.0)	58(15.7)
	7 SBI associates	1885(6.6)	1822(6.2)	1862(6.1)	1938(6.3)	1865(6.1)	1746(5.9)	1568(5.7)	161	96(4.9)	77(4.2)	73(4.9)	35(5.1)	28(5.3)	19(5.1)
	State Bank of Patiala	486	446	452	476	467	452	413	19	13	10	10	3	3	3
	State Bank of Hyderabad	245	253	260	273	260	254	218	21	24	24	22	4	4	2
	State Bank of Travancore	293	291	301	305	286	277	274	24	10	8	12	8	6	4
	State Bank of Bikaner and Jaipur	391	377	392	406	397	370	337	56	12	9	9	[illegible]	3	2
	State Bank of Mysore	227	221	222	236	216	187	155	14	12	9	6	[illegible]	4	2
	State Bank of Saurashtra	94	94	92	98	97	93	85	17	15	12	8	[illegible]	4	4
	State Bank of Indore	140	140	142	145	141	112	86	11	10	7	6	5	3	3
II	19 Nationalised Banks	18026(62.9)	18339(62.7)	19039(62.7)	19473(63.2)	19284(63.1)	18672(63.4)	17585(63.8)	1787	330(16.8)	1116(61.5)	1048(69.9)	488(71.8)	388(73.6)	273(73.8)
	Bank of Baroda	1778	1845	2020	2062	2095	2032	1925	235	225	223	262	111	142	116
	Bank of India	1277	1296	1295	1338	1321	1290	1263	299	87	66	65	13	16	13
	Punjab National Bank	3042	2886	3032	3124	3093	3005	2633	99	67	69	86	34	27	9
	Canara Bank	1809	1827	1923	1970	1931	1871	1816	204	133	141	129	22	15	9
	Central Bank of India	1599	1637	1750	1792	1786	1761	1646	137	130	136	68	55	12	12
	Union Bank of India	1089	1074	1059	1052	1039	986	895	72	59	54	40	12	5	4
	Indian Overseas Bank	684	686	692	706	695	658	628	90	83	82	69	15	11	7
	Indian Bank	918	895	896	930	911	898	800	53	52	64	53	25	24	41
	Syndicate Bank	587	635	678	696	681	629	657	98	97	41	26	76	4	3
	UCO Bank	784	835	880	900	891	866	836	76	78	81	99	76	73	8
	Allahabad Bank	1063	1261	1291	1328	1347	1341	1370	37	23	23	24	8	5	4
	United Bank of India	572	608	600	610	582	539	483	14	9	11	11	13	16	10
	Oriental Bank of Commerce	444	439	446	445	428	392	314	127	21	18	19	@	@	@
	Dena Bank	344	343	347	355	347	318	288	58	35	24	31	6	3	3
	Vijaya Bank	196	189	203	202	178	165	158	30	23	26	11	3	3	3
	Bank of Maharashtra	424	434	459	465	460	444	436	26	17	12	12	4	2	2
	Andhra Bank	448	493	511	531	527	527	518	36	20	15	9	5	3	3
	Punjab and Sind Bank	616	618	609	613	605	592	578	14	13	17	22	3	1	@
	Corporation Bank	351	338	349	355	368	362	350	81	38	12	11	6	24	25
B	Private Sector Banks (34)*	1362(4.8)	1333(4.6)	1273(4.2)	1187(3.9)	1110(3.6)	951(3.2)	871(3.2)	633	190(9.7)	181(10.0)	113(7.5)	24(3.5)	10(1.9)	7(1.9)
I	Private Sector Banks (25)*	1318(4.6)	1296(4.4)	1252(4.1)	1186(3.9)	1109(3.6)	951(3.2)	871(3.2)	378	132(6.7)	139(7.7)	113(7.5)	24(3.5)	10(1.9)	7(1.9)
	The Vysya Bank	121	124	128	130	125	125	123	17	10	19	31	3	1	1
	The Federal Bank	78	75	77	76	62	45	44	125	33	32	15	3	@	-
	The Jammu and Kashmir Bank	177	166	150	118	106	87	89	11	@	@	@	1	1	@
	Bank of Rajasthan	237	240	235	230	218	182	166	8	19	25	5	@	@	@
	Karnataka Bank	61	62	64	64	62	58	46	18	2	5	3	1	@	@
	The South Indian Bank	99	101	100	100	96	81	67	19	2	2	3	2	1	@
	The United Western Bank	50	47	47	49	42	42	40	35	17	10	10	1	@	@
II	New Private Sector Banks (9)	44(0.2)	36(0.1)	21(0.1)					256	58(3.0)	42(2.3)				
C	Foreign Banks (42)*	233(0.8)	289(1.0)	307(1.0)	298(1.0)	498(1.6)	583(2.0)	859(3.1)		23(1.2)	27(1.5)	28(1.9)	34(5.0)	22(4.2)	13(3.5)
	Citi Bank NA	36	37	44	32	151	152	236	@	@	1	6	2	3	1
	ANZ Grindlays Bank	21	22	21	28	44	73	317	4	4	3	4	5	7	2
	Hongkong Bank	63	81	100	97	104	87	134	1	4	3	2	3	2	2
	Standard Chartered Bank	41	41	47	48	115	187	119	@	@	3	7	11	6	6
	American Express Bank								2	2	3	3	3	2	1
	Bank of America NT and SA									@	@	@	@	@	@
	Total (103 Banks in 1997-98)	28664 (100.0)	29255 (100.0)	30349 (100.0)	30802 (100.0)	30569 (100.0)	29439 (100.0)	27557 (100.0)		1963 (100.0)	1815 (100.0)	1499 (100.0)	680 (100.0)	527 (100.0)	370 (100.0)

Notes Figures in brackets are percentage to total 100 banks @ negligiable * including all others not available

Sources As in Table 12

Table 14: Investments and Advances by Bank Groups and Major Banks

(Rupees crore)

Name of the Bank	Investments in India (Total)						Advance in India					
	1997 98	1996 97	1995 96	1994 95	1993 94	1992 9	1997 98	1996 97	1995 96	1994 95	1993-94	1992-93
A Public Sector Banks	227103	191055(85 3)	159254(87 4)	147402(87 3)	131445(86 1)	[illegible]	[illegible]	220251(79 9)	187311(80 8)	159723(84 6)	129668(86 0)	131225(87 8)
I State Bank Group	72703	61746(27 6)	54719(30 0)	51611(30 6)	46154(30 3)	34691(29 9)	97567	82902(30 1)	69979(30 2)	56740(30 0)	46973(31 1)	48360(32 4)
State Bank of India	54982	46828(20 [illegible])	42909(23 6)	40799(24 2)	36883(24 2)	27880(24 [illegible])	74237	62233(22 6)	51813(22 3)	41214(21 8)	34972(23 2)	37160(24 9)
7 SBI associates	17721	14918(6 7)	11810(6 5)	10812(6 4)	9301(6 1)	6811(5 9)	23329	20668(7 5)	18166(7 8)	15526(8 2)	12001(8 0)	11200(7 5)
State Bank of Patiala	2951	2662	2171	2105	1664	1200	4105	3787	3305	2768	2206	2082
State Bank of Hyderabad	3695	2931	2155	2071	1733	1401	4630	4041	3876	3303	2377	2240
State Bank of Travancore	3301	2626	1880	1810	1669	1123	4001	3525	3215	2777	2108	1850
State Bank of Bikaner and Jaipur	2827	2282	1872	1791	1514	1059	3660	3012	2447	2100	1776	1712
State Bank of Mysore	1912	1779	1387	1259	1160	826	2632	2407	2039	1795	1371	1326
State Bank of Saurashtra	1538	1545	1431	981	876	616	2399	2155	1813	1533	1137	1069
State Bank of Indore	1499	1093	914	796	655	585	1902	1607	1470	1250	1026	921
II 19 Nationalised Banks	154399	129309(57 8)	104535(57 4)	95790(56 7)	85261(55 9)	64903(56 0)	162336	137349(49 8)	117333(50 6)	102983(54 5)	82695(54 8)	82865(55 4)
Bank of Baroda	13359	10927	9102	7976	7348	6145	19803	14419	13737	12569	10785	9887
Bank of India	[illegible]	[illegible]	6279	7674	7120	[illegible]	22021	13699	11669	9376	7460	7327
Punjab National Bank	15908	13976	11936	11374	10298	8301	16043	14067	12680	11617	9868	10890
Canara Bank	16031	12203	10655	10009	9237	7742	16825	14222	12837	10572	8101	7850
Central Bank of India	12767	11855	7950	7313	6223	5192	10678	8790	8895	7804	5986	6752
Union Bank of India	9206	7745	6493	6031	5368	3524	10276	9168	8681	7129	5161	4477
Indian Overseas Bank	7382	6422	5878	5180	4696	2947	8667	6011	5736	5215	3698	3675
Indian Bank	6991	5209	4750	4382	3781	3712	7260	5518	6174	6265	5463	5462
Syndicate Bank	7660	7408	6049	5693	4948	2979	6960	4650	4372	3693	3312	3642
UCO Bank	7503	5041	5160	4483	4013	3234	5611	3975	3843	3676	3198	3665
Allahabad Bank	6462	5268	4271	3798	3825	3011	5724	4937	4816	4237	3722	3956
United Bank of India	7176	6132	4456	3878	3242	2611	3371	3027	2851	2815	2529	2922
Oriental Bank of Commerce	5957	4388	3584	2917	2522	1560	6318	4886	4672	3529	2567	2219
Dena Bank	4601	3719	2764	2500	2336	1673	5147	4044	3402	2871	2158	1988
Vijaya Bank	3789	3099	2829	2445	1807	1267	3225	2475	2444	2356	1826	1605
Bank of Maharashtra	4722	3729	3167	2832	2230	1627	3620	3111	2692	2344	1808	1855
Andhra Bank	3947	3339	2622	2326	2042	1499	3296	2907	2580	2410	1932	1908
Punjab and Sind Bank	3755	3012	2462	2273	1844	1364	3186	2791	2790	2438	1696	1552
Corporation Bank	4154	3287	2128	2507	2376	1081	4303	3015	2442	2066	1423	1234
B Private Sector Banks (34)*	26590	18390(8 2)	11735(6 4)	9474(5 6)	7188(4 7)	5069(4 4)	35313	28540(10 4)	22224(9 6)	13818(7 3)	9707(6 4)	7836(5 2)
I Private Sector Banks (25)*	.7856	13610(6 1)	9993(5 5)	9474(5 6)	7187(4 7)	5068(4 4)	24243	20678(7 5)	17334(7 5)	13817(7 3)	9706(6 4)	7835(5 2)
The Vysya Bank	2086	1903	1355	1630	1422	860	2573	2624	2542	2709	1632	1426
The Federal Bank	2366	1456	1146	1058	807	628	3921	2999	2228	1632	1197	848
The Jammu and Kashmir Bank	2061	1593	1068	792	589	501	2158	1694	1364	1208	1241	1130
Bank of Rajasthan	1089	1110	889	977	612	432	1480	1498	1361	1018	688	572
Karnataka Bank	1258	834	591	467	380	299	1818	1450	1185	812	606	474
The South Indian Bank	1006	823	632	668	489	348	1463	1154	1028	743	603	493
The United Western Bank	931	664	496	463	338	276	1370	1076	891	773	532	441
II New Private Sector Banks (9)*	8733	4780(2 1)	1741(1 0)				11069	7862(2 9)	4890(2 1)			
C Foreign Banks (42)*		14425(6 4)	11209(6 2)	12062(7 1)	13954(9 1)	11333(9 8)		26759(9 7)	22392(9 7)	15327(8 1)	11453(7 6)	10410(7 0)
Citi Bank NA	2557	2329	2317	2609	3198	2700	4767	3984	3479	2791	2258	2105
ANZ Grindlays Bank	3355	2391	1901	2274	2436	2454	4189	4297	3644	1899	1596	1861
Hong Kong Bank	2221	1860	1472	1416	1510	864	2808	2219	2146	1605	1088	1088
Standard Chartered Bank	1528	1433	883	947	1345	2182	3180	2595	2018	1035	858	717
American Express Bank	984	888	930	1120	1542	385	1030	1077	1307	1259	934	1455
Bank of America NT and SA	1917	1320	749	813	1047	1036	3844	2943	2021	1476	810	357
Total (103 Banks in 1997-98)		223870(100 0)	182198(100 0)	168938(100 0)	152586(100 0)	115995(100 0)		275550(100 0)	231927(100 0)	188967(100 0)	150828(100 0)	149472(100 0)

Source As in Table 12

Tabe 15: Advances – Priority Sector and Pubic Sector by Bank Groups and Major Banks

(Rupees crore)

Name of the Bank	Advances in India Priority Sector 1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92	Advances in India – Public Sector 1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92
A Public Sector Banks	80574	68930(83.9)	61809(85.5)	52489(87.9)	45517(89.8)	44741(92.7)	43033(94.5)	32875	24199(92.2)	23339(96.8)	20543(97.8)	19409(95.2)	20149(95.9)	14225(90.7)
I State Bank Group	28111	24208(29.5)	21393(29.6)	17628(29.5)	15514(30.6)	14955(31.0)	14314(31.4)	15190	12573(47.9)	12699(52.6)	8342(39.2)	10112(49.6)	11943(56.9)	7359(46.9)
State Bank of India	19523	16946(20.6)	14945(20.7)	12019(20.1)	11071(21.8)	11040(22.9)	10646(23.4)	12088	10064(38.3)	10307(42.7)	5864(27.5)	8141(39.9)	10031(47.8)	5980(38.1)
7 SBI associates	8588	7257(8.8)	6448(8.9)	5609(9.4)	4443(8.8)	3915(8.1)	3668(8.1)	3102	2509(9.6)	2392(9.9)	2478(11.6)	1971(9.7)	1912(9.1)	1379(8.8)
State Bank of Patiala	1529	1401	1173	992	871	715	658	597	495	464	404	322	382	285
State Bank of Hyderabad	1594	1374	1227	1180	819	772	764	643	594	565	484	372	394	297
State Bank of Travancore	1302	1209	1129	1037	761	540	554	618	538	565	627	581	543	358
State Bank of Bikaner and Jaipur	1438	1042	880	714	638	583	580	472	378	309	360	278	186	170
State Bank of Mysore	947	853	777	598	545	485	417	294	251	243	315	196	241	171
State Bank of Saurashtra	979	741	680	592	442	481	395	315	258	165	179	137	80	57
State Bank of Indore	798	637	582	495	368	339	301	164	84	81	110	85		41
II 19 Nationalised Banks	52463	44723(54.5)	40416(55.9)	34861(58.4)	30003(59.2)	29786(61.7)	28719(63.1)	17685	11625(44.3)	10640(44.1)	12501(58.7)	9297(45.6)	8206(39.1)	6866(43.8)
Bank of Baroda	5739	4921	4861	4181	3287	3121	2730	2689	1582	872	1313	1265	882	580
Bank of India	5761	4746	3787	2982	2637	2431	2515	2105	1101	931	953	247	240	596
Punjab National Bank	5275	4380	4092	3970	3858	3935	3747	1745	1495	1313	1522	1167	1191	1007
Canara Bank	6006	5267	4753	3596	3002	2763	2812	1721	1344	1407	1448	1096	1040	1236
Central Bank of India	3655	3075	2781	2388	2222	2522	2455	1051	634	815	1051	697	671	644
Union Bank of India	3885	3222	2857	2565	1862	1613	1363	1097	836	412	417	528	522	274
Indian Overseas Bank	2556	2251	2024	1629	1352	1394	1284	1020	721	803	903	656	471	96
Indian Bank	1894	2255	2356	2386	2084	2173	2155	82	98	131	588	393	280	320
Syndicate Bank	1801	1507	1347	1248	1145	1104	1237	1077		642	584	455	482	187
UCO Bank	1871	1592	1330	1229	1132	1245	1346	549	345	495	558	425	482	489
Allahabad Bank	1750	1493	1240	1170	1308	1534	1428	615	485	494	493	581	425	305
United Bank of India	1208	1145	1083	1071	950	1014	1030	1082	366	454	599	490	355	362
Oriental Bank of Commerce	2474	1958	1748	1313	1046	905	706	325	244	314	256	196	241	195
Dena Bank	2183	1629	1384	1168	845	814	745	460	306	330	322	251	221	142
Vijaya Bank	1276	972	940	884	655	653	653	321	295	246	254	190	79	66
Bank of Maharashtra	1341	1130	983	779	723	731	727	481	339	156	341	198	140	74
Andhra Bank	1321	1136	907	715	648	780	700	439	291	331	460	262	108	165
Punjab and Sind Bank	1211	1091	1076	923	682	582	637	303	204	308	204	157	183	57
Corporation Bank	1257	952	867	663	565	473	417	431	412	185	233	43	193	75
B Private Sector Banks (34)*	9975	8451(10.3)	6049(8.4)	3917(6.6)	2876(5.7)	2383(4.9)	1798(3.9)	1858	1554(5.9)	479(2.0)	285(1.3)	294(1.4)	204(1.0)	671(4.3)
I Private Sector Banks (25)*	7588	6521(7.9)	5110(7.1)	3916(6.6)	2876(5.7)	2383(4.9)	1798(3.9)	1690	1401(5.3)	476(2.0)	285(1.3)	294(1.4)	204(1.0)	671(4.3)
The Vysya Bank	1140	1084	828	788	682	624	270	83	55	1	8	1	9	38
The Federal Bank	943	697	541	431	299	199	156	95	57	27	14	13	2	5
The Jammu and Kashmir Bank	356	338	246	173	145	177	163	1210	1051	152	142	156	74	554
Bank of Rajasthan	490	551	341	234	174	138	136	182	139	157	62	74	64	45
Karnataka Bank	694	511	389	263	184	139	129	6	7	17	17	18	29	18
The South Indian Bank	388	318	249	174	148	119	101	10	10	2	6	2	2	2
The United Western Bank	490	450	356	296	213	153	125	7	13	20	6	7	6	3
II New Private Sector Banks (9)*	2387	1930(2.4)	939(1.3)					168	153(0.6)	2(neg)				
C Foreign Banks (42)*		4738(5.8)	4441(6.1)	3320(5.6)	2292(4.5)	1131(2.3)	712(1.6)		497(1.9)	303(1.3)	178(0.8)	680(3.4)	657(3.1)	788(5.0)
Citi Bank NA	544	529	484	539	226	316	73	8	27	6	17	215	148	141
ANZ Grindlays Bank	304	227	223	185	239	263	227	53	229	197	96	76	30	60
Hongkong Bank	581	537	556	526	410	223	84		1	4	@	73	10	5
Standard Chartered Bank	377	524	466	254	147	32	112	61	59	41	20	170	93	54
American Express Bank	292	200	237	240	203	23	4		15	19		51	196	115
Bank of America NT and SA	742	546	447	96	102	3	66	254	59	28	35	83	154	394
Total (103 Banks in 1997-98)		82119 (100.0)	77299 (100.0)	59727 (100.0)	50685 (100.0)	48255 (100.0)	45543 (100.0)		26250 (100.0)	24120 (100.0)	21306 (100.0)	20382 (100.0)	21007 (100.0)	15685 (100.0)

Source As in Table 12

Table 16: Branches and Staff in Numbers by Bank Groups and Major Banks

Name of the Bank	Branches in Numbers							Staff in Numbers						
	1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92	1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92
A Public Sector Banks	45289	44756(90.9)	44334(90.8)	43755(91.2)	43338(91.3)	42901(91.5)	42355(91.5)	887403	888415(92.2)	894889(92.5)	894791(92.9)	891785(93.0)	884265	876339(93.0)
I State Bank Group	13216	13112(26.5)	12992(26.6)	12875(26.8)	12789(26.9)	12586(26.8)	12400(26.8)	321162	318307(33.0)	314252(32.5)	313003(32.5)	309106(32.2)	304811	302804(32.1)
State Bank of India	8925	8886(18.0)	8885(18.2)	8839(18.4)	8812(18.6)	8736(18.6)	8627(18.6)	239649	236204(24.5)	233000(24.1)	232000(24.1)	229126(23.9)	226209	225059(23.9)
7 SBI associates	4291	4226(8.6)	4107(8.4)	4036(8.4)	3977(8.4)	3850(8.2)	3773(8.1)	81513	82103(8.5)	81252(8.4)	81003(8.4)	79980(8.3)	78602	77745(8.3)
State Bank of Patiala	707	699	655	639	625	599	575	13108	14004	13700	13579	13311	13102	12545
State Bank of Hyderabad	832	800	779	768	750	729	712	14269	14117	14023	13931	13738	13683	13597
State Bank of Travancore	660	654	651	646	629	615	614	13049	12990	12855	12730	12583	12363	12258
State Bank of Bikaner and Jaipur	767	764	746	733	733	709	701	15046	15077	15060	15198	14655	14644	14456
State Bank of Mysore	562	557	539	529	525	516	508	11217	11089	10829	10813	10740	10327	10252
State Bank of Saurashtra	384	380	377	369	360	344	328	7993	8015	8033	8056	8279	7816	8018
State Bank of Indore	379	372	360	352	355	338	335	6831	6811	6752	6696	6674	6667	6619
II 19 Nationalised Banks	32073	31644(64.1)	31342(64.2)	30880(64.3)	30472(64.2)	30315(64.6)	29955(64.7)	566241	570108(59.2)	580637(60.0)	581788(60.4)	582679(60.8)	579454	573535(60.9)
Bank of Baroda	2522	2493	2476	2457	2395	2408	2364	45935	45001	45887	45286	42894	44722	44850
Bank of India	2495	2475	2454	2422	2367	2381	2350	52518	53295	54046	54319	53156	53817	53544
Punjab National Bank	3793	3765	3734	3700	3676	3691	3645	66599	67616	71263	72154	72723	72395	72043
Canara Bank	2312	2262	2192	2136	2088	2048	2023	54703	54316	54044	53327	52736	51952	51493
Central Bank of India	3088	2087	3084	3077	3062	3042	3007	49702	50372	51156	51546	54595	51838	51642
Union Bank of India	2087	2030	2004	1909	1895	1867	1845	30901	30919	32954	32722	32754	32805	32720
Indian Overseas Bank	1380	1371	1354	1344	1323	1308	1296	28347	28644	28488	29184	28842	29083	28912
Indian Bank	1494	1487	1472	1440	1407	1374	1365	26994	27267	27228	26734	26765	25803	25690
Syndicate Bank	1627	1611	1589	1568	1558	1558	1548	36266	36905	37344	37809	38242	38461	36814
UCO Bank	1803	1802	1802	1793	1796	1791	1790	32830	33574	34205	34834	34827	35713	35496
Allahabad Bank	1875	1863	1861	1855	1845	1803	1803	22606	22831	22961	22982	22891	22745	22243
United Bank of India	1333	1333	1333	1332	1332	1326	1315	22041	23301	22501	22556	22681	22718	22549
Oriental Bank of Commerce	841	755	701	618	583	553	533	14238	13580	13128	12367	11890	11364	10857
Dena Bank	1156	1143	1134	1130	1121	1117	1103	15109	15610	15964	16271	16547	16502	16484
Vijaya Bank	835	835	835	810	777	742	722	14138	14268	14300	14112	14003	13760	13666
Bank of Maharashtra	1162	1147	1138	1136	1130	1133	1124	16596	16852	17235	17501	18934	18659	17451
Andhra Bank	982	974	978	970	969	959	951	14936	15066	16216	16362	16459	15590	15604
Punjab and Sind Bank	704	704	700	691	684	766	727	12167	12312	12481	12458	12588	12484	12424
Corporation Bank	581	507	501	492	471	448	441	9615	9379	9236	9192	9152	9043	9053
B Private Sector Banks (34)*	4663	4462(9.0)	4316(8.8)	4087(8.5)	3993(8.4)	3867(8.2)	3803(8.2)	62209	60921(6.3)	58872(6.1)	54858(5.7)	54133(5.6)	53714	52719(5.6)
I Private Sector Banks (25)*	4436	4334(8.8)	4233(8.7)	4087(8.5)	3993(8.4)	3867(8.2)	3803(8.2)	58504	58464(6.1)	57241(5.9)	54849(5.7)	54124(5.6)	53705	52711(5.6)
The Vysya Bank	360	346	335	323	316	300	294	5721	6088	5534	5348	5347	5209	5024
The Federal Bank	395	377	360	355	348	339	337	6138	6094	5770	5678	5593	5411	5232
The Jammu and Kashmir Bank	332	324	319	313	312	306	301	5689	5573	5500	5041	5030	5029	4992
Bank of Rajasthan	302	298	294	283	281	280	277	4388	4472	4513	4479	4497	4560	4495
Karnataka Bank	324	306	296	285	280	273	273	3925	3636	3642	3483	3334	3342	3351
The South Indian Bank	354	350	350	333	316	308	302	3770	3841	4182	4049	4083	4071	4015
The United Western Bank	207	203	200	197	193	190	184	3393	3357	3389	3378	3383	3305	3268
II New Private Sector Banks (9)*	227	128(0.3)	82(0.2)					3705	2457(0.3)	1620(0.2)			..	..
C Foreign Banks (42)*		176(0.4)	171(0.4)	151(0.3)	144(0.3)	140(0.3)	140(0.3)		13915(1.4)	13935(1.4)	13262(1.4)	13051(1.4)	13435(1.4)	13126(1.4)
Citi Bank NA			6	6	6	6	6		..	1455	1395	1289	1331	1392
ANZ Grindlays Bank			56	56	56	56	56			3914	3953	3731	4177	4098
Hongkong Bank			21	21	21	21	21			2332	2382	2318	2208	2087
Standard Chartered Bank			24	24	24	24	24		..	2445	2445	2965	2943	2974
American Express Bank			4	4	4	4	3			464	499	471	462	418
Bank of America NT and SA			4	4	4	4	4			564	469	458	569	412
Total (103 Banks in 1997-98)		493394 (100.0)	48821 (100.0)	47994 (100.0)	47477 (100.0)	46909 (100.0)	46299 (100.0)		963251 (100.0)	967696 (100.0)	962911 (100.0)	958969 (100.0)	951414 (100.0)	942184 (100.0)

Source: As in Table 12.

Table 17: Financial Assets of Banks and Financial Institutions

(Rupees Crore)

Institution	1998	1997	1996	1995	1994	1993	1992	1991	1981
A Financial Assets of Banks and Financial Distributions									
I Banks (1+2+3)	654406	564824	508652	455840	373511	312983	271915	232786	46987
	(64.0)	(63.6)	(64.7)	(64.8)	(63.6)	(63.3)	(63.3)	(65.5)	(73.8)
1 All Scheduled Commercial Banks	628332	542001	489148	438092	358407	299509	259902	222613	44622
2 Non-Scheduled Commercial Banks	0	2	2	65	93	91	86	77	9
Total Commercial Banks	628332	542003	489150	438157	358500	299600	259988	222690	44631
3 State Co-operative Banks	26074	22821	19502	17683	15011	13383	11927	10096	2356
II Financial Institutions	367713	323821	278035	248112	213819	181271	157761	122655	16650
	(36.0)	(36.4)	(35.3)	(35.2)	(36.4)	(36.7)	(36.7)	(34.5)	(26.2)
4 All-India term lending Institutions	158379	131636	106127	91750	80995	73650	65185	52054	6143
5 State Level Institutions	17763	17763	16629	14178	13229	12576	11523	10048	1733
6 Investment Institutions	184800	168539	150719	137057	115762	92146	78699	58566	8534
7 Other Institutions	6772	5884	4560	5127	3833	2899	2354	1987	240
III Aggregate (I+II)	1022119	888645	786687	703952	587330	494254	429676	355441	63637
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

B Total Financial Assets of Financial Institutions : Institution-wise

Institution	1997-98	1996-97	1995-96	1994-95	1994-93	1992-93	1991-92	1990-91	1980-81
A All India Term Lending Institutions (1 to 7)	158378.7	131635.5	106126.8	91750.0	80995.4	73649.8	65184.7	52054.0	6143.1
	(43.1)	(40.7)	(38.2)	(37.00	(37.9)	(40.6)	(41.3)	(42.4)	(36.9)
1 IDBI	58613.7	47925.0	43791.0	37786.0	34329.7	30919.0	27967.9	22700.8	3098.6
	(15.9)	(14.8)	(15.8)	(15.2)	(16.1)	(17.1)	(17.7)	(18.5)	(18.6)
2 NABARD	25027.0	22393.0	19436.5	17820.0	15586.2	15680.3	14466.1	12664.4	1635.1
	(6.8)	(6.9)	(7.0)	(7.2)	(7.3)	(8.7)	(9.2)	(10.3)	(9.8)
3 ICICI	42503.0	33756.0	20911.0	17375.1	13715.1	11184.9	9134.5	7083.8	727.9
	(11.6)	(10.4)	(7.5)	(7.0)	(6.4)	(6.2)	(5.8)	(5.8)	(4.4)
4 IFCI	19924.0	16453.0	13380.0	10550.9	9868.8	9108.1	7514.5	5834.5	589.1
	(5.4)	(5.1)	(4.8)	(4.3)	(4.6)	(5.0)	(4.8)	(4.8)	(3.5)
5 EXIM Bank	5186.0	4883.0	3958.4	3596.8	3099.4	2684.6	2457.5	1983.7	-
	(1.4)	(1.5)	(1.4)	(1.4)	(1.4)	(1.5)	(1.6)	(1.6)	
6 IIBI	2508.0	1698.0	1508.2	1269.4	1128.3	1070.0	984.9	818.2	92.4
	(0.7)	(0.5)	(0.5)	(0.5)	(0.5)	(0.6)	(0.6)	(0.7)	(0.6)
7 NHB	4617.0	4527.5	3141.7	3351.8	3267.9	3002.9	2659.3	968.6	-
	(1.3)	(1.4)	(1.1)	(1.4)	(1.5)	(1.7)	(1.7)	(0.8)	
B State-Level Institutions (8 to 9)	17762.6	17762.6	16628.6	14178.1	13228.6	12575.9	11523.1	10048.4	1733.1
	(4.8)	(5.5)	(6.0)	(5.7)	(6.2)	(6.9)	(7.3)	(8.2)	(10.4)
8 SFCs	9289.6	9289.6	9289.6	9008.6	8430.3	7943.1	7383.0	6411.5	1073.6
	(2.5)	(2.9)	(3.3)	(3.6)	(3.9)	(4.4)	(4.7)	(5.2)	(6.4)
9 SIDCs	8473.0	8473.0	7339.0	5169.5	4798.3	4632.8	4140.1	3636.9	659.5
	(2.3)	(2.6)	(2.6)	(2.1)	(2.2)	(2.6)	(2.6)	(3.0)	(4.0)
C Investment Institutions (10 to 12)	184800.0	168538.5	150719.4	137057.3	115762.2	92146.0	78699.7	58565.3	8534.4
	(50.3)	(52.3)	(54.2)	(55.2)	(54.1)	(50.8)	(49.9)	(47.7)	(51.3)
10 LIC	102475.0	90598.6	75291.2	61921.7	50964.3	41836.7	35410.9	29040.0	6814.9
	(27.9)	(28.0)	(27.1)	(25.0)	(23.8)	(23.1)	(22.4)	(23.7)	(40.9)
11 GIC and its subsidiaries	18891.0	18064.9	16017.2	12691.6	9916.4	8731.3	7952.6	6361.6	1198.9
	(5.1)	(5.6)	(5.8)	(5.1)	(4.6)	(4.8)	(5.0)	(5.2)	(7.2)
12 UTI	63434.0	59875.0	59411.0	62444.0	54881.5	41578.0	35336.2	23163.7	520.6
	(17.3)	(18.5)	(21.4)	(25.2)	(25.7)	(22.9)	(22.4)	(18.9)	(3.1)
D Other Institutions (13 to 14)	6771.7	5884.2	4560.2	5127.2	3833.3	2899.4	2353.8	1987.3	239.8
	(1.8)	(1.8)	(1.6)	(2.1)	(1.8)	(1.6)	(1.5)	(1.6)	(1.4)
13 DICGC	6138.0	5250.5	4004.7	4588.2	3497.1	2519.9	2038.4	1743.5	200.3
	(1.7)	(1.6)	(1.4)	(1.8)	(1.6)	(1.4)	(1.3)	(1.4)	(1.2)
14 ECGC	633.7	633.7	555.5	539.0	336.2	379.5	315.4	243.8	39.5
	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
Grand Total (A+B+C+D)	367713.0	323820.8	278035.0	248112.6	213819.5	181271.1	157761.3	122655.0	16650.4
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Figures in brackets are percentage share to the total

Source: RBI, *Report on Trend and Progress of Banking in India 1997-98*.

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REVIEW OF POLITICAL ECONOMY

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- MONOPOLY COTTON PROCUREMENT IN MAHARASHTRA: WHAT HAS IT ACHIEVED?
- HOW AND WHY NEHRU AND SHEIKH ABDULLAH FELL OUT

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Technology and Development

Bangalore's phenomenal growth in the software sector appears to be slowing down. Case studies covering a public sector unit, two MNCs and three indigenous firms which originated as small-scale units illustrate the new challenges facing this sector in the context of the ongoing shift from state intervention to liberalisation. **PE-2** The historical nature of the crisis which prompted the suicide deaths of cotton farmers may be better understood through a retracing of the route by which the present connections between Indian cotton and the mechanised textile industry were first established and the efforts through the khadi movement to provide a base for indigenous cotton technology. **PE-12** The Lentin Commission has brought out in stark detail the complex and corrupt links between a large public hospital, the multifaceted drug industry and the health bureaucracy. But this remarkable document is gathering dust today. **PE-39** The region covering almost the entire catchment area of the Koyna dam was declared a protected sanctuary, putting the livelihoods of the people of the area, the oustees from the dam site decades ago, in jeopardy once again. Environmental policies need to address socio-anthropological issues. **293**

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The Caspian region with its rich oil and gas reserves is rapidly becoming the focus of intense competition among the big powers. **260**

Memories of *EW*

ASHOK MITRA's 'Fifty Years Ago' (January 9) is nostalgic. I was privileged to have been one of those 'anonymous' contributors close to Sachin Chaudhuri in the fifties. It happened by accident. I sent him an article on 'Indo-Swiss Trade' for favour of publication either in 1949 or 1950. He sent a very friendly reply requesting information and light on India's agreement with Oerlikens of Switzerland on machine tools. This involved further research and improved the article considerably. Soon after he published another article from me titled 'The Spanish Tangle' (my title had been 'The Spanish Conundrum'). Articles followed at intervals on various subjects either as 'contributed' or under my initials 'SN'.

Sachin Chaudhuri was one of three persons in my life who encouraged research for further light on issues and who indirectly cultivated my desire and ability to write. We used to correspond even when I did not have an article to send him. He once suggested that I could send him notes or press clippings of interest and I used to send him a few every week. I was a kind of Delhi correspondent and *EW* issues arrived every Sunday by express delivery invariably when we were at lunch. I used to tear open the cover eagerly – in the midst of gulping 'sambar' or 'rasam' – delving into the contents and proudly pointing out what had been used from my notes and clippings. There was excitement at one time when an editorial scoop revealed the government's proposed centralisation and rationalisation of its economic advisory offices. I had made a small contribution to this story: it was not mainly or entirely mine, yet Sachin Chaudhuri generously told me that my note had triggered it off.

I recall a visit to Delhi by Sachin in the early fifties. At his request I accompanied him on his rounds on a Sunday and we met, among others, Acharya J B Kripalani and Sucheta Kripalani. She was an active member of parliament, he perhaps AICC general secretary. They worked from the same large hall, Acharyaji at one end squatting on a diwan, Suchetaji at the other end with a desk and chair. During this Delhi visit Sachin became aware that I was not as well off as he probably had thought, chided me for not asking for any remuneration for my articles and sent me a generous cheque from Bombay. (This must have been the early fifties since my income improved dramatically from the mid-50s.)

I had the privilege of being Sachin Chaudhuri's house-guest at Churchill Chambers. I think it was 1956; I arrived in Bombay at the height of the agitation for the separate state of Maharashtra. There was curfew. I was allowed to go to my office premises at Cowasji Patel Street where I spread my holdall bed on a large table and settled for the night. Next morn-ing I telephoned Sachin to meet him for a chat. He insisted on my moving into his apartment immediately even though he had another house-guest at the time. I had a pleasant stay chatting and drinking and eating, but had regretfully to depart the next day for Delhi.

In the sixties I became immersed in my career and there was little time for *EW*. In 1965 I moved to New York on an UN assignment but continued to receive and read *EW*. Soon after the transition from *EW* to *EPW* began. The Sameeksha Trust was set up and Sachin wrote to me in connection with raising funds for the Trust. In 1966 I was able to organise the collect-ion of two or three thousand US dollars from 10-12 Indian staff members of the UN Secretariat and remitted the amount under the Defence Remittance Scheme (which preceded the devaluation of the rupee). This was done spontaneously as were the contributions. This is small money by today's standards, but a good contribution then since UN salaries in New York at that time averaged only $ 1,000 per month. Looking back I am consoled that I could in this way acknowledge my debt to Sachin and *The Economic Weekly* for the opportunity provided to me to think, analyse and write, to expose 'light without heat'.

EPW's high standard and quality today is a tribute to the firm foundations laid by Sachin Chaudhuri and no less to the dynamism and continued upgradation by Krishna Raj and the Sameeksha Trust. Best wishes.

S NANJUNDAN

New Delhi

A Flood of Questions

IN the last paragraph of the excellent article by Kunda Dixit and Inam Ahmad ('Managing the Himalayan Watershed: A Flood of Questions', October 31, 1998), there is an incidental reference to the 'Three Country Study' undertaken by Centre for Policy Research, Delhi, Bangladesh Unnayan Parishad, Dhaka and Institute for Integrated Development Studies, Kathmandu, on co-operation by India, Bangladesh and Nepal in the utilisat-ion of the waters of the Ganga, Brahmaputra and Meghna. In the course of that paragraph there are some remarks which might give the reader the impression (perhaps unintended) that the Study Project, and in particular, the study of possibilities of augmentation of the lean season flows of the Ganga, have been hampered by the 'nationalistic' attitudes and the absence of enthusiasm for regional co-operation displayed by the Indian (i e, CPR) team. Such an impression would be quite erroneous; and the errors involved are many. I doubt whether my good friends and colleagues of many years (Q K Ahmad, Ainun Nishat and Sajjadur Rasheed), quoted earlier in the article would have said anything to warrant such a conclusion. Perhaps there has been a misunderstanding of some of their remarks. If so, it could have been cleared up if the authors of the article had considered it appropriate to talk to any of us in the CPR (myself, B G Verghese, R Rangachari) who have been involved in this project. I do not propose to enter into detailed corrective expla-nations here, as that would require a long letter, which would be a disproportionate response to what is after all only an incidental reference in the article. In any case, what matters is not the processes of inter-institutional meetings, discussions, exchanges of drafts and revisions that go on under the project, but what emerges from all this in the public domain, namely, the seminars and conferences that we organise, and the books and papers that we publish. Four books were published at the end of the first phase of the project in 1993-94, and now, as we approach the end of the second phase, one more book is in an advanced stage of preparation. I would request Dixit and Ahmad to wait for the appearance of that book.

RAMASWAMY R IYER

New Delhi

ECONOMIC AND POLITICAL WEEKLY

What about Some Law and Order?

IN the past week or so, homilies on the quality of tolerance to mark the occasion of Republic Day from the country's high and mighty have provided the grimly ironic backdrop to acts of extreme intolerance and brutality at the ground level. The burning to death of the Australian missionary Graham Stewart Staines and his two sons, aged 10 and seven, in Manoharpur village of Keonjhar district of Orissa on the night of January 22 as they slept in their jeep was as if it had been planned to evoke the maximum revulsion. Just a couple of days later, in yet another caste carnage in Bihar, 23 persons, including five women and nine children, were cold-bloodedly massacred by the Ranbir Sena in Shankarbigha village of Jehanabad district.

If anything could possibly have been as depressing as the grisly atrocities themselves, it is the response of politicians and political parties which has been unabashedly calibrated to extract from them the maximum political mileage. The murder of Graham Staines and his two children blended neatly into the tension involving Hindu organisations and Christian missionaries already stoked by the events of December last in the Dangs area of Gujarat. The Congress and the other opposition parties have lost no time in linking these developments to BJP's rule at the centre. Even some constituents of the BJP-led ruling coalition as well as the TDP which has been generally supporting the government have deemed it expedient to publicly distance themselves from the BJP with its links with shadowy Hindu organisations. From the other side, BJP leader L K Advani has rushed to absolve the Bajrang Dal of any role in the killing of the Australian missionary, evidently not bothered in the least by the fact that for the moment he happens to be the country's home minister. A three-member team of central ministers headed by defence minister George Fernandes returned from a hurried trip to Orissa convinced of the existence of "a deep-seated international conspiracy" behind the missionary's murder. Even a body like the National Commission for Minorities could not eschew the temptation to play to the gallery. A fact-finding team of the commission sent to Orissa felt it had to call a press conference in the capital even before it had submitted its report to the commission, just to let the world know that "certain forces", which it would not name, were behind the Manoharpur crime.

What the events of the last few weeks in Gujarat and Orissa have achieved is to push the secularism/communalism issue once again to the forefront of national politics. This has been very much the established pattern of political discourse in the country and evidently suits all the parties, the BJP not excluded in the longer run, notwithstanding the immediate tremors created for the government at the centre led by it. Not surprisingly, given the political stakes on both sides, communal tension and violence have continued unabated and ever new communal organisations have sprouted and flourished. The credibility of the supposedly secular camp, on the other hand, has been progressively eroded as it has come to be dominated by blatantly casteist outfits and as the secular credentials of the Congress itself have come under question. The result has been the flowering of the BJP to the position of one of the country's two principal political parties with a nationwide base. Elements within the secular grouping have done their cause no good, though they may have gained little vote-banks here and there, with their convoluted positions on the alleged relation legitimacy of minority communalism which have on balance and in the final analysis won electoral support for the BJP and emboldened the more openly Hindu organisations linked to it.

To deal more effectively with overt and violent manifestations of communalism it is necessary therefore to search for alternative approaches with the focus far more firmly on enforcement of law and punishment of wrong-doing. It is a paradox – or rather an inevitable outcome of the dominant concern of politicians and parties with exploiting communal tension and violence for political advantage – that for all the breast-beating about secularism and the hullabaloo that is orchestrated after every episode of communal violence, almost as a matter of rule and whatever the political colour of the government in office seldom are these crimes systematically investigated and those guilty prosecuted and punished. To take one instance, when after its protracted labours the report of the Srikrishna Commission enquiring into the riots in Mumbai in December 1992 and January 1993 was made public last year, there was much indignation, justifiable of course, over the commission's conclusion that the Shiv Sena had taken an active part in the riots. But this was by no means a startling revelation; the Sena's role in the violence had been well known and in fact had been even openly boasted about by that party's leaders. Yet the commission's equally significant finding that the Congress government then in office in Maharashtra had been conspicuously tardy in acting to prevent the spread of the rioting and in bringing those responsible to book raised no political hackles. In the killing of the Australian missionary in Orissa again, while charges have been flying thick and fast about whether or not the Bajrang Dal was involved in the attack and whether or not the principal suspect was a member of the Dal, it has been brought to light that this particular individual has systematically indulged in violence with communal overtones for the last many years, especially in forcibly letting loose cattle being taken to slaughter houses, and that in one of these incidents the Muslims accompanying the cattle had been so severely assaulted that one of them died of his injuries. Should not the 'secular' Congress government of J B Patnaik in Orissa be called upon to answer why this criminal was left free to carry on his activities without let or hindrance, culminating in the ghastly crime in Manoharpur?

CRIME AND PUNISHMENT

Enlarging Tolerance

J V Deshpande writes:

'THE buck stops here' president Truman is said to have remarked many years ago, referring to the American president's office in the White House. But that was in hedonist, materialist America, where a person holding public office is expected to accept the responsibilities that go with the office. Political life is organised differently in spiritual India. Here, more often than not, the buck keeps going round and round and eventually just vanishes into thin air. Grim tragedies and disasters just happen. No one is ever held responsible for them. Didn't a former prime minister observe sagely that when a great tree falls, shrubs and grass are bound to get crushed. This was in reference to the killing of thousands of Sikhs after the assassination of Indira Gandhi. It is all in your 'karma' and people, particularly the victims, had better accept their fate. Even official commissions of inquiry sometimes say as much.

Tolerance of wrongdoing, particularly in public life, seems to come particularly easy. A remarkable feature of the 50 years of freedom is the steady widening of the frontiers of tolerance. Was not financial finagling of thousands of crores of rupees involving stock-market operators, major banks and public sector financial institutions explained away by many responsible and learned persons as just a 'systemic failure'? No one has yet been found responsible for that financial crime. A senior cabinet minister hands over a secret letter to authorities of another country, requesting them to go easy with investigating a multinational financial crime suspected to have been committed by some Indians but he does not remember who gave him that letter. Tolerant India accepts his explanation with no questions asked. Government files involving the activities of suspected criminals and politicians believed to be in league with them mysteriously get lost and tolerant India accepts not only such loss but also the official explanation that no one is really at fault. Systemic failure again? Road and rail accidents, collapse of buildings and bridges, deaths in police encounters ('while resisting arrest') and in stampedes at pilgrimage centres and in political rallies are all accepted as nobody's fault.

Leaders of the gowari community took out a large procession to the Maharashtra state assembly then in session in Nagpur late in 1994 to present a petition to the government and try and meet the minister concerned to acquaint him of their grievances. No responsible person was free to meet them. They were blocked and caned at a point which had very few exits and in the stampede that resulted 114 persons were trampled to death, over a hundred of them women and children, who were, by design or by accident, at the head of the procession. The government ordered an inquiry into the ghastly tragedy. Its report was made public recently, four years after the tragedy, along with the government's Action Taken Report.

The commission has concluded that no one was really at fault. It could not pinpoint the immediate reason which caused the situation to go out of hand. It does not find fault with either the then chief minister or the minister in charge who were not able to spare the agitators even a few minutes of their time, even as the latter waited for over three hours, nor with the police for resorting to a cane-charge on the procession without checking that the people so attacked had adequate escape routes. The chief minister was apparently not informed by his office. The minister concerned is absolved because he was busy in the assembly, presumably for the entire duration.

The commission has also concluded that "in order to control this situation, as well as to prevent the participants to surge ahead to the Vidhan Bhavan, and also to avoid law and order problem, it was therefore but essential and necessary for the police force to resort to use of some force". To speculate now, four years after the event, what would have been the loss if some of the demonstrators had actually entered Vidhan Bhavan is, of course, pointless. According to the commission, "at the same time, it is necessary to note that the participants, as well as the leaders of the morcha, are not responsible for this incident". In short, in the words of the commission, "the incident is required to be styled and held as an UNFORTUNATE one" (commission's capitals).

This is an unsurprising conclusion in the country used to reading about the deaths of children in tribal areas – never due to starvation and malnutrition but always because of some temporary factors such as cholera, typhoid, black fever, etc. After all, the report on the gowari tragedy has been prepared according to the correct judicial procedures and the Commission of Inquiries Act. So the ordinary people of this country should accept it without demur, coming as it does from a person well-versed in the legal, governmental and political ways of the country.

POLITICS

Dangerous Game

A correspondent writes:

THE recent Congress Working Committee resolution stating that "Hinduism is the most effective guarantor of secularism" may reflect a politically expedient strategy, but is a questionable proposition from both religious and historical points of view. Besides, it has dangerous implications, if one goes by the past precedent of Indira Gandhi's disastrous strategy of wooing the Hindu majority in the 1980s, by appropriating symbols of Hindu hegemony that appeal to the Hindi heartland.

This attempt to invest Hinduism with the authority to protect secularism can be partly attributed to Sonia Gandhi's reaction to the Sangh parivar's propaganda that her position as the Congress president has encouraged Christian missionaries in the country to go on a proselytisation drive. In order to dissociate herself from the Christian minority community, she is now bending over backwards. But it is not she alone that is behind this shift in the Congress stand towards the religious sentiments of the Hindu majority. Defending the pro-Hindu line, the veteran Congress spokesman V N Gadgil is reported to have described it as "practical politics". According to him, the minorities put together are only 15 per cent, while the Hindus constitute 85 per cent, a "substantial part of which must be got back by the Congress".

By the term 'substantial part', Gadgil means the Hindu upper caste vote-bank in the Hindi heartland which at one time belonged to the Congress, but had shifted its allegiance to the BJP. By praising Vivekananda (which Sonia Gandhi did at a function at the Ramakrishna Mission just a few days before the Congress Working Committee session) and upholding the hegemony of Hinduism as the only religion that can protect the minorities, the Congress is trying on the one hand to regain its hold on the brahmin-rajput constituency and, on the other hand, to reassure the minorities of its secular image, albeit with a Hindu face. With growing disillusionment with the BJP (for its non-performance) among large sections of Hindus, the Congress now hopes that it can step in with a humane face of Hinduism that will appeal to these sections.

But such an approach will reinforce the already entrenched religious and communal biases that are increasingly influencing political choices in India. By glossing

over the oppressive caste system, obscurantist customs, superstitious beliefs and gender discrimination that are essential parts of Hinduism and still rule its practices, the Congress is trying to project Hinduism as a tolerant religion, just because it is the religion of the majority who have to be pandered to. No democratic and secular party (which the Congress claims to be) can uphold Hinduism, or any religion for that matter, as a panacea to solve problems in today's society.

Besides, such a strategy is likely to have ominous repercussions. In the 1980s, Indira Gandhi adopted a similar *realpolitik*, when in order to woo away Hindu voters from the BJP, she struck a pro-Hindu pose, made use of Hindu symbols and rituals with well-publicised visits to temples and talked about the "rights of the majority". This indeed helped her to take the wind out of the BJP's sails and led to its rout in the elections. But let us also remember that it was this game of soft hindutva that led to the gradual desecularisation and Hinduisation of the Indian polity. It legitimised the religious demands of the Sangh parivar. Its logical consequence was Rajiv Gandhi's decision to allow the opening of the gates of the Babri masjid and permit the notorious 'shilanyas' procession which unleashed the Hindu fanatical forces. There was no turning back after this.

Indira Gandhi set the course of pandering to the Hindu majority. When as a result the Sangh parivar made inroads into the polity and became a menace, her successors in the ruling Congress floundered from ambivalence to total abdication as eloquently demonstrated by the demolition of the Babri masjid and the riots that followed. Thus Indira Gandhi's strategy to fight the BJP on its own turf by appropriating Hindu symbols and rhetoric ended with the Congress itself being devoured by the forces of hindutva. This should be a warning to Congress politicians who are once again hoping to gain immediate mileage by playing the religious card, totally oblivious of the far-reaching consequences.

PAKISTAN

Press under Threat

THE ongoing tussle between the press and the government in Pakistan is hardly a new development. Over the last five decades the press in Pakistan has had a history of defying governments which have attempted to muzzle it. And interestingly, through it all, there has been a surprising solidarity within the press. In a sense, the press in Pakistan has been far more politically alive than its Indian counterpart. In the current case, for instance, although the Jang group has been the focus of attack by the government, there has been widespread protest among journalists and other employees of almost all newspapers.

The Jang group has now gone to court protesting against the stoppage of its newsprint quota. This is not of course the first time that the group has been subjected to such action. In 1972 it was one of the papers which was named by the Bhutto government as having "promoted the forces of disruption, called for recognition of Bangladesh, maligned the head of state and sought to undermine the morale and discipline of the armed forces". And *Jang* together with *Dawn* and others were victims of repressive measures including the withholding of newsprint quotas. This time around the Jang group called a press conference to make public the demands put on it by senator Saifur Rahman in return for dropping the charges of tax evasion against it. These demands included a promise not to conduct telephonic surveys on sensitive political issues, not to malign the prime minister, support his economic policies, etc. The revelations caused an uproar: the government had also asked for the dismissal of 16 senior journalists who were to be replaced by government nominees. Among them is Maliha Lodhi, editor of the group's English daily, *The News*. The group has not only refused to accept the government's 'advice' but has begun an advertisement campaign against the government captioned 'Press under Siege' inviting readers' participation. It has also challenged the government's actions in the Supreme Court which is due to hear the case next week. The paper has asked the Supreme Court to direct Saifur Rahman to refrain from monitoring and supervising its functioning.

The Nawaz Sharif government's new concern over the press is all of a piece with its recent attempts to muzzle criticism generally. This in itself is nothing new in Pakistan's history; however, the situation under Ayub Khan or under Bhutto was very different and Sharif's crude attempts will in the long run only make matters worse for him. For instance, it is for the first time that an elected government has invoked Article 45 of the constitution to set up military courts. Moreover this was done by an ordinance only days after the National Assembly had concluded its long session. The government has also been active in trying to curb the activities of NGOs, especially those set up and run by women. As in other south Asian countries, Pakistan has a number of NGOs involved in numerous activities, and it may well be, again as in other countries, that some are corrupt. But Sharif's ire against them is because they have been consistently critical of his abuse of power and denial of people's rights – in fact pushing back the movement towards democratisation of the country's institutions. This is not surprising given that many of these NGOs were directly involved in the movement which first put Benazir Bhutto in power, although it did not take long for disenchantment with her to set in.

CURRENT STATISTICS

***EPW* Research Foundation**

EU-11 accounts for 26.5 per cent of OECD's population and 27.5 per cent of GDP compared with the US's 24.5 and 34 per cent and Japan's 11.5 and 18.4 per cent. The dominance of EU-11 is in its export (47 per cent) and import (33 per cent) shares against the US's share of about 15 per cent each of export and import and Japan's share of 10.5 per cent and 6.7 per cent. Of OECD's 'high-tech' manufactured exports, the US share is 24 per cent, Japan's 20 per cent and EU-11's 39 per cent. The US, however, has a massive net surplus from technology exports followed by Japan, whereas almost all the EU-11 countries have a negative balance.

Macroeconomic Indicators

Index Numbers of Wholesale Prices (1981-82 = 100)	Weights	Jan 16, 1999	Variation (Per Cent): Point-to-Point — Over Month	Over 12 Months — Latest	Over 12 Months — Previous	Fiscal Year So Far — 1998-99	Fiscal Year So Far — 1997-98	1997-98	1996-97	1995-96	1994-95
All Commodities	100.00	353.0	–0.7	4.4	5.7	4.7	5.6	5.3	6.9	5.0	10.4
Primary Articles	32.30	381.5	–1.5	8.0	4.9	9.7	7.2	5.5	7.0	5.4	12.7
Food Articles	17.39	439.4	–2.6	7.6	5.4	11.7	8.0	4.0	9.6	9.8	11.9
Non-Food Articles	10.08	387.8	0.3	11.5	3.9	8.8	5.9	8.5	3.5	–1.9	15.5
Fuel, Power, Light and Lubricants	10.66	374.1	–2.1	–0.9	13.0	–2.6	9.4	11.4	16.9	3.7	2.4
Manufactured Products	57.04	332.9	0.1	3.4	4.7	3.3	3.9	4.0	4.9	5.0	10.7
Food Products	10.14	348.5	1.7	6.0	8.1	7.0	6.5	5.5	14.1	–0.7	8.1
Food Index (computed)	27.53	405.9	–1.3	7.1	6.3	10.2	7.5	4.5	11.1	6.3	10.6
All Commodities (Average Basis) (April 4 - January 16, 1999)	100.00	352.0	–	6.9	5.3	7.3	4.7	4.8	6.4	7.8	10.9

Cost of Living Indices	Latest Month	Variation (Per Cent): Point-to-Point — Over Month	Over 12 Months — Latest	Over 12 Months — Previous	Fiscal Year So Far — 1998-99	Fiscal Year So Far — 1997-98	1997-98	1996-97	1995-96	1994-95
Industrial Workers (1982=100)	438.0[11]	1.2	19.7	4.9	15.3	4.3	8.3	10.0	8.9	9.7
Urban Non-Man Emp (1984-85=100)	345.0[11]	–1.4	12.4	6.2	10.6	5.5	7.2	10.2	8.2	9.9
Agri Lab (1986-87=100) (Link factor 5.89)	310.0[11]	2.0	18.3	*	14.0	*	3.8	10.5	7.2	11.1

Money and Banking (Rs crore)	Jan 1, 1999	Variation — Over Month	Over Year	Fiscal Year So Far — 1998-99	Fiscal Year So Far — 1997-98	1997-98	1996-97	1995-96
Money Supply (M_3)	925963	4310(0.5)	151067(19.5)	100574(12.2)	73048(10.4)	123451(17.6)	97841(16.2)	72581(13.7)
Currency with Public	160429	-679(–0.4)	18958(13.4)	15246(10.5)	9384(7.1)	13095(9.9)	13829(11.7)	17577(17.5)
Deposit with Banks@	762071	5062(0.7)	131844(20.9)	85469(12.6)	63660(11.2)	110036(19.4)	84162(17.5)	55042(12.9)
Net Bank Credit to Govt	380122	256(0.1)	62422(19.6)	49502(15.0)	29080(10.1)	42000(14.6)	30840(12.0)	35360(15.9)
Bank Credit to Comml Sector	455976	9114(2.0)	53687(13.3)	23786(5.5)	25982(6.9)	55883(14.9)	31659(9.2)	51925(17.7)
Net Foreign Exchange Assets	138098	1584(1.2)	19958(16.9)	11529(9.1)	12644(12.0)	21072(20.0)	23356(28.4)	3109(3.9)
Reserve Money (Jan 15)	250538	12779(5.4)	42386(20.4)	24304(10.7)	8166(4.1)	26248(13.1)	5527(2.8)	25176(14.9)
Net RBI Credit to Centre	151310	4030(2.7)	25240(20.0)	17693(13.2)	5367(4.4)	12915(10.7)	1934(1.6)	19855(20.1)
RBI Credit to Bks/Comm Sector	25815	8261(47.1)	10425(67.7)	10533(68.9)	2138(16.1)	2029(15.3)	–15557(–54.0)	8747(43.6)
Scheduled Commercial Banks (Jan 15)								
Deposits	685062	5168(0.8)	119883(21.2)	79652(13.2)	59580(11.8)	99811(19.7)	71780(16.5)	46960(12.1)
Advances	349240	10287(3.0)	47164(15.6)	25161(7.8)	23675(8.5)	45677(16.4)	24386(9.6)	42455(20.1)
Non-Food Advances	332640	9674(3.0)	42577(14.7)	21046(6.8)	19259(7.1)	40790(15.1)	26580(10.9)	44938(22.5)
Investments (for SLR purposes)	249843	-1650(–0.7)	34936(16.3)	31138(14.2)	24394(12.8)	28192(14.8)	25731(15.6)	15529(10.4)
Commercial Investments	45015	899(2.0)	11106(32.8)	11930(36.1)	14498(74.7)	13673(70.4)	4412(29.4)	925(6.6)

@ Includes Rs 17,945 crore on account of proceeds from RIBs, excluding which the year-on-year growth of money supply would be 17.2 per cent.

Index Numbers of Industrial Production (1993-94=100)	Weights	October 1998	Fiscal Year So Far — 1998-99	Fiscal Year So Far — 1997-98	Full Fiscal Year Averages — 1997-98	1996-97	1995-96	1994-95
General Index	100.00	136.7	137.4(3.6)	132.6(6.2)	137.6(6.6)	129.0(5.5)	122.3(12.8)	108.4(8.4)
Mining and Quarrying	10.47	118.0	115.6(–0.7)	116.4(5.0)	122.4(5.9)	115.6(–2.0)	117.9(9.6)	107.6(7.6)
Manufacturing	79.36	140.1	140.6(3.8)	135.4(6.2)	140.5(6.7)	131.8(6.7)	123.5(13.8)	108.5(8.5)
Electricity	10.17	129.5	135.2(6.3)	127.2(6.9)	130.0(6.7)	121.9(3.9)	117.3(8.1)	108.5(8.5)

Capital Market	Jan 29, 1999	Month Ago	Year Ago	1998-99 So Far — Trough	1998-99 So Far — Peak	1997-98 — Trough	1997-98 — Peak	End of Fiscal Year — 1997-98	1996-97	1995-96
BSE Sensitive Index (1978-79=100)	3316(2.9)	3046	3224(-8.6)	2783	4281	3210	4548	3893(15.8)	3361(–0.2)	3367(3.3)
BSE-100 (1983-84=100)	1462(4.4)	1355	1401(–9.1)	1242	1890	1401	1980	1697(15.9)	1464(–5.5)	1549(–3.5)
BSE-200 (1989-90=100)	338(7.6)	313	314(–8.2)	289	429	314	440	377(14.9)	328(–5.0)	345(–6.3)
S and P CNX-50 (Nov 3, 1995=1000)	966(2.7)	873	941(–7.5)	812	1213	941	1140	1117(15.4)	968	na
Skindia GDR Index (Jan 2, 1995=1000)	614(–22.7)	580	794	515	1015	765	1320	940(1.1)	930(–4.4)	973(–0.6)

Foreign Trade	November 1998	Fiscal Year So Far — 1998-99	Fiscal Year So Far — 1997-98	Fiscal Year Averages — 1997-98	1996-97	1995-96	1994-95
Exports: Rs crore	10812	89897(10.1)	81623(7.7)	126286(6.3)	118817(11.7)	106353(28.6)	82674(18.5)
US $ mn	2551	21433(–5.2)	22598(5.2)	33980(2.6)	33470(5.3)	31797(20.8)	26330(18.4)
Imports: Rs crore	14734	117948(23.8)	95254(10.4)	151554(9.1)	138920(13.2)	122678(36.3)	89971(23.1)
US $ mn	3477	28121(6.6)	26371(7.9)	40779(5.8)	39132(6.7)	36678(28.0)	28654(22.9)
Non-POL, US $ mn	2917	24094(14.8)	20988(13.8)	32562(11.9)	29096(–0.2)	29152(28.3)	22727(29.5)
Balance of Trade, Rs crore	–3922	–24222	–13631	–25268	–20102	–16325	–7297
US $ mn	–925	–5784	–3774	–6799	–5663	–4881	–2324

Foreign Exchange Reserves (excluding gold)	Jan 22, 1999	Jan 23, 1998	Mar 31, 1998	Variation Over — Month Ago	Year Ago	Fiscal Year So Far — 1998-99	Fiscal Year So Far — 1997-98	1997-98	1996-97	1995-96	1994-95	1993-94
Rs crore	117029	92212	102511	2668	24817	14518	11837	22136	21649	–7302	18402	27430
US $ mn	27519	23805	25976	593	3714	1543	1436	3607	5243	–3690	5640	8724

Notes: (i) Superscript numeral denotes month to which figure relates, e g, superscript 11 stands for November; (ii) Figures in brackets are percentage variations over the specified or over the comparable period of the previous year. na: not available. neg: negligible. * unchanged.

The European Union and the OECD

Country/ Country Groupings	Total Area Thousand Sq Km	Population (000) 1996	Population (000) 1986	Total Labour Force (000) 1996	GDP (At Market Prices) At Current Prices and Exchange Rates (Billion $) 1997	GDP At Current Prices and Exchange Rates (Billion $) 1996	GDP Per Capita at Current Prices ($ 1996) Using Current Exch Rates	GDP Per Capita Using Current PPPs	GFCF (Per Cent Share to GDP at Current Prices) Total	GFCF Machinery and Equipment	Unemployment Rates as Per Cent of Total Labour Force 1996	Unemployment 1986	Direct Investments (million $) 1996 Inflows	Direct Investments Outflows	Imports (Billion $) 1996	Manufacturing as Per Cent of Total Imports 1996	Exports (Billion $) 1996	Manufacturing as Per Cent of Total Exports 1996
1 Germany	357	81877	61066	39294	2115	2354	28738	21200	20.6	7.6	9.0	7.6	-3243	27883	444	73.4	513	88.4
2 France	549	58380	55547	25613	1394	1537	26323	20533	17.4	7.8	12.3	10.4	20401	28274	275	78.4	284	81.4
3 Italy	301	57473	57246	23385	1146	1214	21217	19974	17.0	8.8	12.0	10.9	3454	5476	207	69.8	251	90.5
4 Spain	505	39270	38537	16159	533	585	14894	14954	20.1	6.1	21.9	20.8	6406	4629	122	73.8	103	79.8
5 Netherlands	41	15494	14572	7516	363	396	25511	20905	19.7	9.4	6.5	10.3	3317	9991	158	74.6	177	64.9
6 Belgium	31	10157	9862	4297	243	268	26409	21856	17.3	8.0	12.9	11.6	11048	7248	158	75.2	168	80.9
7 Austria	84	8060	7566	3876	206	229	28384	21395	23.8	8.8	3.6	3.1	3719	1064	68	83.7	57	96.9
8 Portugal	92	9935	10007	4885	98	104	10425	13100	24.1	11.7	7.5	8.5	608	771	35	75.4	25	86.6
9 Finland	338	5125	4918	2531	118	125	24420	18871	16.1	6.4	16.1	5.3	1219	3551	31	74.3	41	85.9
10 Ireland	70	3621	3541	1494	73	71	19525	18988	17.2	6.1	11.9	17.4	1722	..	36	78.3	48	77.0
11 Luxembourg	3	418	369	218	16	17	40791	32416	20.8	12.4	3.3	1.4	11048	7248	158	75.2	168	80.9
(A) EU-11	2371(6.8)	289810(26.5)	263231(26.5)	129268(28.9)	6304(27.5)	6899(29.6)	23805	..	..	..	..	..	59699	96135	1692(32.5)	..	1835(46.9)	..
12 United Kingdom	245	58782	56852	28552	1278	1153	19621	18636	15.5	7.6	8.2	11.6	32766	43717	288	80.5	259	85.6
13 Sweden	450	8901	8370	4310	230	252	28283	19258	14.8	7.9	8.1	2.7	5461	4470	64	80.7	83	81.8
14 Denmark	43	5262	5121	2822	163	175	33230	22418	16.7	7.9	6.9	5.5	1379	2845	45	77.8	51	63.9
15 Greece	132	10465	9964	4249	119	122	11684	12743	20.8	7.7	10.0	7.4	.	..	26	73.9	11	60.5
(B) EU-15	3240(9.3)	373220(34.2)	343538(34.6)	169201(37.8)	8094(35.3)	8601(36.9)	23045	..	..	..	10.9	10.4	..	..	1922(36.9)	76.3	2008(51.3)	83.0
(C) US	9373(27.0)	265557(24.3)	240651(24.2)	135231(30.2)	7819(34.1)	7388(31.7)	27821	27821	17.6	8.3	5.3	6.9	84629	85440	818(15.7)	79.5	582(14.9)	78.4
(D) Japan	378(1.1)	125864(11.5)	121490(12.2)	67110(15.0)	4223(18.4)	4595(19.7)	36509	23235	29.7	10.1	3.4	2.8	222	23468	349(6.7)	57.2	411(10.5)	95.7
(E) Canada	9976(28.7)	29964(2.7)	26204(2.6)	15209(3.4)	599(2.6)	579(2.5)	19330	21529	17.7	6.6	9.7	9.5	6696	7561	168(3.2)	83.8	190(4.9)	67.4
(F) OECD Total	34727(100)	1092208(100)	992711 (100)	448017(100)	22911(100)	23310(100)	21342	..	..	..	7.3	..	..	..	5207(100)	..	3914(100)	..

Country/ Country Groupings	Export Market Shares (OECD=100) (1995) All Manufacturing Industries	Export Market Shares 'High-tech' Manufacturing Industries	Net National Savings as Per Cent of GDP (1996/1995)	Taxation (Per Cent) (1995) Total Tax Receipts as Per Cent of GDP	Rate Schedules of Central Government Personal Income Tax Highest	Rate Schedules Lowest	Science and Techology (1994) Technology Balance of Payments (million $) Receipts	Payments	Balance	Patent Applications Total in Country	of which from Abroad	Applications Abroad	Resident and Abroad Per 1 Lakh of Total Population	Exchange Rate Currency Units December 1997 Per US $	Per SDR	Total Government Debt as Per Cent of GDP (1994)
1 Germany	16.1	10.6	7.0	39.2	57.0	45/30	10529.4	13298.9	-2769.5	109621	64.7	231915	331	1.8	2.4	30.2
2 France	8.8	8.5	6.0	44.5	56.9	33.3	2012.4	2791.6	-779.2	86231	85.4	99788	193	6.0	8.1	..
3 Italy	7.4	3.3	8.2	41.3	67.2	52.2	1207.2	1562.2	-355	63606	..	43298	..	1743.0	2363.0	83.8
4 Spain	2.7	1.2	9.4	34.0	56.0	35.0	80.2	1110.3	-1030.1	57695	96.4	10088	31	150.3	203.8	51.2
5 Netherlands	5.0	5.2	14.2	44.0	60.0	35.0	6208.2	6138.9	69.3	57586	96.1	62906	421	2.0	2.7	61.6
6 Belgium	5.2	2.2	12.2	46.5	60.5	40.2	2984.6	3080.0	-95.4	53029	98.4	19456	200	36.6	49.6	8.0
7 Austria	1.9	0.8	8.5	42.4	50.0	34.0	133.4	532.6	-399.2	52200	96.6	19342	262	12.5	17.0	54.6
8 Portugal	0.7	0.3	17.1	33.8	40.0	39.6	..	..	..	45351	99.8	374	5	181.5	246.1	..
9 Finland	1.3	1.0	4.4	46.5	62.1	28.0	43.4	307.0	-263.6	22281	90.6	44041	903	5.4	7.3	36.1
10 Ireland	1.3	3.3	12.0	33.8	48.0	38.0	..	..	..	45513	98.1	5247	170	0.7	0.9	.
11 Luxembourg	5.2	2.2	24.3	44.0	50.0	39.1	..	..	..	44835	..	2118	..	..	..	..
(A) EU-11	55.4*	38.5*	..	..	..	..	..	..	..	637948(34.0)	..	538573(25.7)	..	..	..	..
12 United Kingdom	7.2	10.3	4.1	35.3	40.0	33.0	4218.3	3530.2	688.1	97040	80.7	203274	379	0.6	0.8	4.7
13 Sweden	2.3	2.5	3.8	49.7	60.6	28.0	397.3	44.7	352.6	55449	92.8	83952	994	7.8	10.6	66.7
14 Denmark	1.4	1.0	3.4	51.3	60.0	34.0	..	..	..	48136	97.4	39530	780	6.8	9.2	..
15 Greece	0.3	0.1	11.2	41.4	40.0	40/35	..	..	..	45128	99	1047	14	279.6	379.0	127.6
(B) EU-15	66.6*	52.3*	..	..	..	..	..	..	..	883701(47.1)	..	866376(41.4)	..	..	..	..
(C) US	16.0	24.2	6.0	27.9	46.6	39.5	22436.0	5666.0	16770	232174(12.4)	46.5	852588(40.7)	371	1.0	1.4	51.9
(D) Japan	14.2	20.4	15.4	28.5	65.0	37.5	5975.7	4164.5	1811.2	387666(20.7)	13.9	154699(7.4)	389	129.4	175.4	44.7
(E) Canada	5.0	3.0	5.0	37.2	54.2	43.1	1259.1	988.0	271.1	43032(2.3)	94.3	52771(2.5)	187	1.4	1.9	..
(F) OECD Total	100.0	100.0	..	37.4	..	..	..	..	..	1874257(100)	..	2092609(100)	..	..	.	..

NICHOLAS PIRAMAL

Focusing on Core Business

WHILE some companies prefer to expand their business slowly over the years in order to grow, others opt for the mergers and acquisitions (M&A) route. Still others prefer a concoction of the two. Nicholas Piramal's growth strategy resembles an M&A exercise. The company acquired Gujarat Glass, a company engaged in the manufacture of soda lime bottles and vials which are consumed by the pharmaceutical industry, in 1984 (merged in 1991). The company began its pharmaceutical business by acquiring Nicholas Laboratories in 1988. In 1995, the company again acquired Sumitra Pharmaceuticals, which has engaged in exporting bulk drugs. In 1996-97, the company merged with Piramal Healthcare and Boehringer Manheim.

The M&A strategy, however, has saddled the company with a couple of virtually unrelated businesses. Apart from the obvious soda lime bottles manufacturing venture – only 5 per cent of the sale of bottles is for internal consumption at present – the bulk drug export business too could be described as more of an opportunistic move to enter a field that looked promising at one stage. Though the move looked like a breakthrough earlier, constant dumping by China, over-capacity, price downturn and a shake-out in the industry considerably reduced the available opportunities.

Realising its folly, Nicholas Piramal has now decided to concentrate on its core business of pharmaceuticals and hive off its unrelated divisions. The company has a presence in almost all the major therapeutic categories. Antibiotics account for a quarter of the company's total sales.

In a move that has made it a debt-free company, Nicholas Piramal has restructured its business by hiving off its two key business segments – Gujarat Glass and the bulk drugs division – into two separate subsidiaries. The move brought in a cash flow of Rs 225 crore. While Gujarat Glass accounted for around 20 per cent of the company's turnover, the bulk drugs business accounted for another 10 per cent.

After suffering a setback in 1997-98, when its bottomline declined by 16.4 per cent, the move could prove to be precisely what the doctor ordered. Considerably reducing interest outgo, the company will now be in a position to invest about Rs 500 crore over the next two to three years to improve its business.

While Nicholas Piramal will initially hold around 54 per cent of the glass subsidiary's equity, this will be moved up to 60 per cent depending of profitability of the business. The company has categorically stated that it will not be making any additional investments in bulk drugs, real estate, the stock market or other unrelated businesses including group companies.

The fall in the company's profitability during the year under review saw its earnings per share fall from Rs 16.3 to Rs 13.6. Bookvalue, too, declined from Rs 104.6 per share to Rs 103.3 per share. Strangely, the company decided to declare a higher dividend of 100 per cent in 1997-98 despite the fall in profitability, as compared to the 37.5 per cent declared last year. The company's equity share price currently rules around Rs 335 on the Bombay Stock Exchange, discounting its 1997-98 earnings by 24.7 times.

VIDEOCON INTERNATIONAL

New Projects

Videocon International, the flagship company of the Videocon group, performed well in 1997-98. While net sales were higher by 23.2 per cent over the previous year, the company's operating profit more than doubled. However, a sharp rise in interest charges and non-operating expenses offset the increase in profitability somewhat. Nonetheless, the company's bottomline improved by 30.3 per cent.

The company is a leading player in the colour television and washing machine markets in the country and has recently signed a memorandum of understanding for acquiring the Salt Lake city colour television unit of Philips. The company was in the news during 1998 when Dhoots, the promoters of the company, made an offer to acquire 2 per cent of the company's shares from the public. They will reportedly be increasing their stake every year until it reaches 51 per cent.

Besides taking over Philips' unit in Salt Lake city near Calcutta, Videocon International also plans to invest Rs 200 crore for setting up two greenfield production lines. These will comprise an audio factory and a white goods production line. The proposed investment will be carried out over a two-year period and will reportedly create 1,500 new jobs. Moreover, the company will also increase the capacity of the Philips unit to two lakh television sets.

The company has also decided to pick up a 40 per cent stake in the Rs 1,500 crore equity capital of a proposed Rs 4,500 crore naphtha cracker project which will be set up at Kuthekur near Surathkal. Work on the project is expected to commence by mid-1999 and the foreign collaborator is expected to have a 40 per cent stake in the equity capital of the mega project. The Karnataka State Industrial Investment and Development Corporation (KSIDC) is also expected to pick up a little less than 4 per cent equity in the project while the public holding will be around 16-17 per cent.

Videocon International has also entered into a joint venture with the Necchi Group – one of the largest manufacturers of compressors and white goods in the world. As per the terms of the arrangement, a new company under the name of Mecne SpA was established, and Videocon International has acquired a 50 per cent stake in the venture.

Videocon Narmada Electronics was merged with the company during the year under review. Consequently, the company's equity has now increased to Rs 71 crore. As a result, though net profit increased by 30.3 per cent, earnings per share fell from Rs 17.1 to Rs 16.2. The company decided to maintain the dividend rate at 35 per cent. Bookvalue, meanwhile, moved up from Rs 179.1 per share to Rs 186.1 per share. The company's stock presently quotes at around Rs 40 on the bourses, discounting its 1997-98 earnings per share by a mere 2.5 times.

EIH

From Business to Tourist Sector

The performance of EIH (formerly East India Hotels) was adversely affected by the depressed economic conditions prevailing in 1997-98. While earnings were virtually stagnant, the company's operating profit declined by 4.2 per cent. Sharp increases in interest charges (up 12.8 per cent) and depreciation (up 30.3 per cent) saw the company's bottomline fall by 5 per cent over the previous year,

(Rs lakh)

Financial Indicators	EIH March 1998	EIH March 1997	Nicholas Piramal March 1998	Nicholas Piramal March 1997	Videocon International March 1998	Videocon International March 1997
Income/appropriations						
1 Net sales	47668	47942	47484	43450	199123	161581
2 Value of production	47668	47942	47143	44718	202995	166279
3 Other Income	3656	2848	1402	3753	308	326
4 *Total income*	51324	50790	48545	48471	203303	166605
5 Raw materials/stores and spares consumed	3897	3616	18811	18873	NA	NA
6 Other manufacturing expenses	4443	3953	5119	5405	137330	119786
7 Remuneration to employees	9221	8921	5468	4752	3623	2501
8 Other expenses	12625	12232	8789	7578	27069	27157
9 *Operating profit*	21138	22068	10358	11863	35281	17161
10 Interest	1390	1232	2330	4354	12907	5802
11 *Gross profit*	19844	20882	6112	7402	18715	12584
12 Depreciation	2041	1567	1846	2494	6750	2499
13 *Profit before tax*	17803	19315	4256	4903	11965	10085
14 Tax provision	978	1603	490	400	450	1245
15 *Profit after tax*	16825	17712	3766	4503	11515	8840
16 Dividends	2882	2845	3048	1071	2739	1995
17 Retained profit	13943	14867	718	3432	8776	6845
Liabilities/assets						
18 Paid-up capital	5239	5239	2771	2771	7106	5167
19 Reserves and surplus	85037	75895	26052	26407	125134	87390
20 Long-term loans	8314	8012	38537	22010	109072	53646
21 Short-term loans	NA	NA	NA	NA	23198	16370
22 Of which bank borrowings	NA	NA	NA	NA	22198	14745
23 Gross fixed assets	85087	77659	56821	46893	147759	76316
24 Accumulated depreciation	13513	11390	9313	9738	30120	9000
25 Inventories	2339	2196	8947	9873	46590	37142
26 Total assets/liabilities	112265	105727	81122	66441	307034	199571
Miscellaneous items						
27 Excise duty	NA	NA	5980	5401	11653	9932
28 Gross value added	30384	30923	11482	13255	32025	22275
29 Total foreign exchange income	4500	3900	3163	4211	7963	20163
30 Total foreign exchange outgo	32740	32607	9161	7106	34799	23101
Key financial and performance ratios						
31 Turnover ratio (sales to total assets) (%)	42.46	45.35	58.53	65.40	64.85	80.96
32 Sales to total net assets (%)	48.35	53.78	70.49	84.88	75.28	99.39
33 Gross value added to gross fixed assets (%)	35.71	39.82	20.21	28.27	21.67	29.19
34 Return on investment (gross profit to total assets) (%)	17.68	19.75	7.53	11.14	6.10	6.31
35 Gross profit to sales (gross margin) (%)	41.63	43.56	12.87	17.04	9.40	7.79
36 Operating profit to sales (%)	44.34	46.03	21.81	27.30	17.72	10.62
37 Profit before tax to sales (%)	37.35	40.29	8.96	11.28	6.01	6.24
38 Tax provision to profit before tax (%)	5.49	8.30	11.51	8.16	3.76	12.35
39 Profit after tax to net worth (return on equity) (%)	18.64	21.83	13.07	15.43	8.71	9.55
40 Dividend (%)	50.00	50.00	100.00	37.50	35.00	35.00
41 Earning per share (Rs)	32.11	33.81	13.59	16.25	16.20	17.11
42 Book value per share (Rs)	120.31	102.29	103.29	104.55	186.10	179.13
43 P/E ratio	6.94	NA	24.65	NA	2.47	NA
44 Debt-equity ratio (adjusted for revaluation) (%)	13.19	14.95	134.64	75.98	82.48	57.96
45 Short-term bank borrowings to inventories (%)	NA	NA	NA	NA	47.65	39.70
46 Sundry creditors to sundry debtors (%)	81.08	108.69	50.06	94.48	29.30	84.90
47 Total remuneration to employees to value added (%)	30.35	28.85	47.62	35.85	11.31	11.23
48 Total remuneration to employees to value of production (%)	19.34	18.61	11.60	10.63	1.78	1.50
49 Gross fixed assets formation (%)	9.56	NA	21.31	NA	93.61	NA
50 Growth in inventories (%)	6.51	NA	-9.38	NA	25.44	NA

NA means not available.

1996-97. Though earnings per share fell from Rs 33.8 last year to Rs 32.1, the company decided to maintain the dividend rate at 50 per cent, the same as last year. Book value moved up from Rs 102.3 per share to Rs 120.3 per share. The company's stock rules at around Rs 223 on the bourses, discounting its earnings by 6.9 times.

For the first six months of the current year, the company's income from operations was marginally higher by 6.5 per cent as compared to the corresponding period last year. While interest rose by 37.8 per cent, depreciation was higher by 14.6 per cent. The company's net profit was higher by 13.1 per cent during the same period.

The company has now decided to shift its focus from the business segment to tourism. The decision has been taken mainly because of the industrial recession in the country and better communication facilities which are causing poor average room realisations in the hotel industry catering to the business segment. In line with this strategy, it is planning to make a substantial investment in the next five years in the tourism sector and has already set up a core committee to prepare a strategy in this regard.

The company's brand name Oberoi is popular and it has recently commenced operations of Hotel Cecil in Shimla to cater to up and medium market tourists. Three other similar projects are also in the pipeline in Kerala, Himachal Pradesh and Rajasthan. EIH plans to invest up to Rs 500 crore over the next five years to set up the largest chain of tourist resorts. During the current year itself, the company has planned a capital expenditure of Rs 176 crore, a large part of which has been earmarked for such resorts.

The company was successful in its bid for the hotel site located at International Finance and Business Centre in Bandra-Kurla complex in Mumbai and plans to build a 500-room Trident hotel here. The cost of the project is expected to be in the region of Rs 400 crore. Work on the Trident hotel in Pune, a 175-room project, has also commenced and is expected to cost around Rs 115 crore. The company will also manage deluxe Oberoi brand hotels which are under construction in Chennai (325 rooms) and Agra (104 rooms), which are expected to open in 1999. New Trident brand hotels are also expected to open in Udaipur and Cochin in the next few months.

Maharashtra Cotton Monopoly Procurement Scheme

What Has It Achieved?

Madhav Godbole

The monopoly procurement of cotton scheme of the government of Maharashtra, launched as a short-term measure in 1971, has become another holy cow. Whichever political party has come to power in the state has pressed for its continuance. A review of the working of the scheme, however, leads to the unambiguous conclusion that it must be wound up at the end of its current lease of life in June this year.

THE monopoly procurement of cotton scheme of government of Maharashtra has got yet another lease of life. The government of India has agreed to extend the scheme by another year with the caveat that no more extension will be permitted beyond June 30, 1999. No one, least of all the state government, takes such empty threats seriously as such threats have been given by successive governments at the centre since the last two decades without ever following them up in practice.

The Maharashtra Raw Cotton (Procurement, Processing and Marketing) Act, 1971 (hereinafter referred to as the Act) was passed on December 23, 1971. It is one of the few legislations in the country which had a 'sunset' provision in that, as the Objects clause of the legislation emphasised in its opening sentence, it was to be "an Act to provide for carrying on *for a certain time* of all trade in raw cotton by the state of Maharashtra" (emphasis added). This was again repeated in the fuller text of the Objects clause of the legislation. Since the Act has continued to be in force for nearly three decades since then, it will be useful to begin the discussion by taking a close look at the Objects of the legislation:

> Whereas, *ginned and pressed cotton has been commanding a high level of prices at the terminal markets in the recent years*, nevertheless it has been brought to the notice of the government of Maharashtra that because of too many intermediaries and also defects in the marketing system, growers of cotton in the state do not get a fair share of the price for their crop;
>
> And whereas, *it is necessary to supply unadulterated cotton to consumers at a reasonable price, and to guarantee the purity of cotton and honest trade practices at processing centres;*
>
> And whereas, the government of Maharashtra has decided that all trade in raw cotton should be carried on by the state *for a certain time*; and for that purpose to take power for acquiring 'kapas' [unginned cotton] from growers and other persons having stocks of cotton, getting it ginned and pressed into bales, selling it in that form to consumers and others on behalf of the tenderers and paying compensation to the tenderers; and provide for matters relating to the purpose aforesaid; it is hereby enacted in the twenty-second year of the Republic of India as follows" (emphasis added).

Section 1(4) specifically provided that the Act shall remain in force up to and inclusive of June 30, 1980, and shall then expire. It also provided that Section 7 of the Bombay General Clauses Act, 1904, shall apply upon the expiry of the Act, as if it had then been repealed by a Maharashtra Act. Before the expiry of the Act, one would have normally expected the state government to review whether the Act needed to be continued further in the light of the changed circumstances from time to time, but it has become another 'holy cow' in the state. It is considered heresy to question the justification for the continuance of the Act. It is not therefore surprising that whichever political party came to power in Maharashtra, it pressed for long-term continuance of the Act. The present Shiv Sena-Bharatiya Janata Party (BJP) coalition government too has requested the central government to permit extension of the Act by 10 years. None of the successive governments at the centre, belonging to various political parties, had the courage to reject the requests of the state government at any time during the last 26 years. This is yet another proof of the competitive populism of political parties in the country.

It would be useful to take a look at some of the salient provisions of the Act and to examine the extent to which these have been adhered to in their implementation over the years.

'Guaranteed price' means the price determined as such under the Act, in respect of any specified variety of cotton, as payable to the cotton growers and other persons tendering kapas, at the collecting centres. Section 24 lays down that "at the commencement of every cotton season, the state government shall, *in consultation with the central government*, fix the guaranteed price for different varieties or grades of kapas and shall notify such price in the official gazette and in such other manner as it deems fit" (emphasis added).

The Act prohibits carrying on of business in kapas (Section 17), cotton ginning and pressing (Section 18), and transport of kapas outside the state (Section 19). Every grower of cotton is required to sell his produce to government (Section 20). Grading and pooling of kapas tendered at collection centres has been made obligatory (Section 22). Advance price payable to the tenderer is to be 80 per cent of the guaranteed price (Section 25).

Special attention may be invited to the provision pertaining to the fixing of the final price. Section 29 lays down that final price has to be announced, "having regard to the prices at which the bales of cotton, cotton seed and cotton waste were sold and the stock of bales of cotton, cotton seed and cotton waste on hand and taking into consideration all expenditure incidental to the handling of kapas and disposing of the same after ginning the same, and pressing it into bales...".

The Act provided for a Price Fluctuation Fund (PFF). Section 33 (1) made a provision that, "where for any cotton season, the final price is less than the guaranteed price, the amount of difference shall be paid from and debited to the Fund". "Where for any cotton season, the final price is more than the guaranteed price of cotton, subject to the provisions of Section 32 [payment of additional bonus], the amount of one-fourth of the difference shall be credited to the Fund..." (Section 33 (2)).

Section 32 provided for payment of additional bonus. "If for any cotton season, the amount at the credit of the PFF is equal to or more than 30 per cent of the average total sales of cotton during the three preceding seasons, the entire amount

realised in excess of the guaranteed price shall be distributed and paid as bonus to the persons concerned, in the same manner and subject to the deductions (if any) as laid down in Sections 26 and 27".

To begin with, the Maharashtra Co-operative Marketing Federation was appointed as the agent of the state government for this scheme. After gaining some experience, the Maharashtra State Co-operative Cotton Growers Marketing Federation (hereinafter referred to as the Federation) was appointed as an agent of the state government in February 1984 to implement the scheme.

The implementation of the Act was reviewed by four committees set up by the state government from time to time. Significantly, none of these committees was asked to examine whether the scheme deserved to be continued, and if so, whether in the same or in any modified form. The central government also does not seem to have insisted on the state government to get such an in-depth study made at any time before agreeing to the continuance of the scheme. The committees therefore confined themselves to the nitty-gritty of the implementation of the scheme. It would be useful to refer to a few important recommendations of these committees to place in proper perspective some of the subsequent ad hoc decisions of the state government, from time to time, regarding the implementation of the scheme.

The first of these committees was the Korpe Committee which submitted its report in 1976. Some of the salient recommendations of the Korpe Committee may be briefly brought out as under:

(i) The Federation should devise suitable mechanism to detect disproportionate tendering of kapas. Exemplary action should be taken against the personnel involved in smuggling of cotton. Follow-up action on green cards [issued to cotton growers indicating their land holding, area under cotton and past figures of tendering of cotton] should also be taken.

(ii) Grading of kapas at procurement stage is most essential and should be continued.

(iii) There should in all be four grades – super, fair average quality (FAQ), fair and X.

(iv) The committee recommended certain price differentials between various grades of cotton.

(v) For effective control mechanism of grading, the Federation should appoint senior and sufficient number of touring inspecting graders for each zone.

(vi) For scientific classification of cotton for effecting better sales, the Federation should set up laboratories at regional headquarters.

(vii) The scheme has every right to draw fully upon the funds of the co-operative banking system, the accumulation of which is, in no small degree, due to the scheme.

(viii) The original concept of fixing guaranteed prices on the basis of cost of cultivation should be adhered to.

(ix) There should be ceiling of Rs 40 crore on the accumulation in PFF. The PFF should be utilised for the trading activity of the scheme.

The second committee, N D Patil Committee, submitted its report in 1978. Some of the more important recommendations of the committee may be summarised as under:

(i) The original concept of fixing guaranteed price on the basis of cost of cultivation recommended by the Korpe Committee should be reintroduced.

(ii) The guaranteed price for 1978-79 season should be 15 per cent over and above the Agricultural Prices Commission Support Price.

(iii) If the Reserve Bank of India does not give the required financial assistance, the state government should come forward to meet the additional financial burden.

(iv) Any deficit beyond what can be accommodated by the PFF should be made good by the state government and should not be adjusted with the future accruals. This principle should apply for 1974-75 season and the deficit made good by government.

(v) The PFF belongs to the growers and the Federation should maintain personal accounts of the growers and give them pass books so that in the event of non-operation of the monopoly scheme, their share in the PFF could be distributed to them.

(vi) The deduction towards PFF should be at the rate of 5 per cent of the difference between the guaranteed price and the final price, in future, including the 1977-78 season.

It can be clearly seen how there has been a subtle, but significant, shift in the approach to the scheme, away from the origional intention of making it self-supporting, with larger and larger demands being made on the state government. There was also a major effort to reduce the contributions to the PFF. The scheme was no longer to be run on commercial lines with bank finance but was viewed as a typical departmental scheme of the state government with the entire financial burden, by way of making good the shortfall in working capital as also reimbursing losses, falling on the state government.

The third committee, known as the Hate Committee, which submitted its report in 1987, was set up by the state government against the background of the huge financial loss of Rs 386 crore sustained by the scheme during 1984-85 and 1985-86. Some important observations/recommendations of the committee are brought out below:

(i) Cotton production in Maharashtra in 1985-86 could not have been higher than 20 lakh bales. The Federation seems to have purchased, in 1984-85 and 1985-86, 3 lakh and 9 lakh bales of cotton, respectively, from outside the state. The loss on this account in 1985-86 alone was as much as Rs 103 crore. No proper precautions were taken to avoid this as also to make detailed enquiries in the matter. Such purchases were against the principles underlying the monopoly purchase of cotton scheme. The committee recommended a number of measures to put a stop to this practice.

(ii) It was wrong on the part of the state government not to accede to the requests of the Federation to temporarily suspend the purchase of cotton during the period of heavy rains.

(iii) Of the five varieties (super, FAQ, fair, X and 'kavadi') in which cotton is graded, only cotton produced by registered certified seed users should be graded as of super variety.

(iv) Fixation of guaranteed price higher than the support price led to the loss of Rs 81.72 crore in 1985-86. Similarly, paying a higher price for the newly developed hybrid variety AHH 468 led to the loss of Rs 67 crore to the scheme in that year.

(v) Quota for export of cotton may be given only to the Cotton Corporation of India (CCI) and co-operative institutions and not the private traders.

(vi) Looking to the grading of cotton in the international market, present grading of cotton be discarded and cotton should be graded in five varieties according to the grades adopted by the East India Cotton Association, namely, extra superfine, superfine, fine, fully good and good.

(vii) The Federation should set up a fully computerised high volume testing laboratory to ensure quality of the cotton sold in the domestic and international markets.

(viii) The inroads of private traders at the purchase centres, in the garb of cotton producers, is a matter of serious concern.

(ix) According to ideal grading standards, cotton of super variety should not be more than 20 per cent of the total. But, in 1985-86 cotton season, 90 per cent of

the cotton was graded as super/FAQ. Of this more than 60 per cent was graded as super. In future, super grade may be given only to the first and second pickings of cotton from pedigree and foundation seed plots. It must be incumbent on the farmer to produce a certificate to this effect from the agriculture department.

(x) The guaranteed prices fixed by the state government have been higher than the corresponding support prices declared by the central government and generally even higher than those recommended by the advisory committee set up under the Act. This has led to losses to the scheme.

(xi) Special steps may be taken for proper development of cotton crop in the state by promoting suitable newly developed varieties, stopping cotton purchases of age-old varieties not recommended any longer by the state and central government, making use of Cotton Control Act to prohibit growing of cotton not suitable for the area, keeping in view the soil and climatic conditions.

(xii) The committee expressed concern at the fact that though the state government had not fulfilled the conditions laid down by the Reserve Bank of India (RBI), regarding making good the financial loss of the scheme and providing margin money to the Federation, the Maharashtra State Co-operative Bank had continued to extend large financial assistance to the Federation, much beyond what was sanctioned by National Bank for Agriculture and Rural Development (NABARD)/RBI. Requirement of funds beyond what has been sanctioned by RBI should be met out of the state government budget.

(xiii) The contribution of the state government to the Capital Contribution Fund (CCF) of Rs 25 crore should be retained in the Fund permanently. If there is any shortfall in future, it should be made good by the state government.

(xiv) The state government should not give interest-bearing loan for meeting the loss sustained by the scheme. The outstanding state government loan of Rs 163 crore given to the Federation for this purpose should be converted into grant. This alone will help the Federation to open a new chapter on a clean slate. In future whenever the scheme incurs any loss, it should be borne by the state government.

The fourth committee, under the chairmanship of the then co-operation minister, submitted its report to the state government in 1994. This committee also proceeded on the assumption that the scheme has to be continued in future. Major recommendations of the committee are as under:

(i) The present practice of classifying cotton in five grades may be continued.

(ii) The purchase price of cotton may be decided each fortnight, or even at earlier intervals, based on prices in other states, processing and administrative expenditure, and expected margin of profit.

(iii) The provision regarding CCF may be deleted.

(iv) Stern steps may be taken to put a stop to illegal trading of cotton. All cotton users in the state must be made to buy cotton only from the Federation.

(v) The Federation should try to reduce administrative expenditure.

(vi) A forward linkage scheme of 'cotton to cloth' may be implemented in a pyramidal fashion by involvement of co-operatives.

(vii) Agriculture department should undertake special steps to increase cotton production in the state in consultation with co-operation department, agricultural universities and cotton experts in the field.

(viii) The present restrictions on the co-operative spinning mills to procure their cotton requirement only from their members may be done away with. Such mills may be permitted to buy cotton from non-members of the spinning mills as well.

The study group for the Ninth Five-Year Plan on co-operation and marketing appointed by the state government has, in its report, shown total lack of understanding of the major issues involved in the continuance of the scheme and has merely recommended that, in view of the reluctance of the central government to continue the scheme, it "should be brought under co-operative fold so as to make it more profitable to cotton farmers"!

The above background brings into sharp focus a few points. First, the need or relevance of the scheme has never been examined since the inception of the scheme and it has been assumed that for some unexplained(?) reasons it has to be necessarily continued. At no time was the question asked to why monopoly procurement was necessary only for the cotton crop and not other agricultural commodities. The only ostensible reason for the continuance of the scheme is to pander to the vote bank of cotton farmers in Vidarbha and Marathwada. Second, in this sense, making a 'sunset' provision in the Act has in practice been meaningless. Third, the initial concept of making the scheme self-supporting has been given up and now it has become the responsibility of the state government to meet all shortfalls whether by way of losses or deficits in the margin money, PFF and CCF. The RBI has been insisting on the state government making good the losses of the scheme as also providing the margin money.

Fourth, the initial objectives of the scheme to supply unadulterated cotton to the consumers at a reasonable price and to guarantee the purity of cotton have been frustrated. As can be seen, all the four committees had laid stress on proper grading of cotton. A number of steps were recommended by them to make the grading system rigorous and fool-proof. Instead, the state government has played havoc with grading by reducing, in December 1997, the number of grades for cotton from five to two, effectively giving unduly high prices for low grade cotton, and doing away with any incentive for growing superior quality cotton. Fifth, yet another objective of the Act was to guarantee honest trading practices at processing centres. As the analysis of all the committees has shown, this has not been achieved in practice.

Sixth, the guaranteed price has been fixed at levels higher than the support price. It also does not have any relation to the cost of production. The central government also is not consulted before declaring the guaranteed price. This is totally contrary to the original objectives of the Act. In fact, announcement of high guaranteed price has become an act of political patronage and successive state governments, whether belonging to the Congress, Progressive Democratic Front or the Shiv Sena-BJP coalition, have made use of this patronage to pauperise the scheme at the cost of the state government. Seventh, from 1994-95 season, the state government decided to give advance additional price, in addition to the guaranteed price, making a total final price of Rs 2,100 per quintal for H-4 super quality grade cotton, with final prices of other varieties being fixed accordingly. On an average this has meant paying about Rs 300 to Rs 400 per quintal higher than the prevailing market price. The latest example of this is the announcement, in January 1999, by the deputy chief minister of the state, who belongs to the BJP, that his party would insist on the price being stepped up from Rs 2,100 to Rs 2,500 per quintal. This was in retaliation of the announcement of Bal Thackeray, Shiv Sena chief, that he will insist on the state government supplying free power to the agriculture sector. This will further increase the losses of the scheme substantially. Eighth, ad hoc decision-making has been the bane of the system. Thus, for example, the deduction of 3 per cent amount from cotton price towards the CCF was suspended for the two years 1993-94 and 1994-95. This has increased the financial burden of the state government.

Ninth, the scheme has meant fragmentation of the cotton market by erection of barriers at the state boundaries. When several countries the world over are making strenuous efforts to establish common markets, we, in this country, are sacrificing the major advantage of one large market by its fragmentation. If not on any other ground, at least on this ground, this scheme which militates against the concept of 'one country one market' should not have been permitted to be operated at all. Unfortunately, the constitutional validity of the Act has never been tested and the scheme has been continued with impunity for the last 26 years. Economic reforms initiated since 1991 too have not made any difference to the continuance of the scheme. The only difference, if at all, is that the scheme is now being extended from year to year instead of being extended for three years at a time!

Tenth, the cotton crop in Maharashtra is a cash crop of farmers in the rain-fed area. Its productivity is therefore dependent on the vagaries of nature. Most of the cotton farmers are small farmers. These are, no doubt, important considerations. But, continuance of the cotton monopoly scheme is not an answer to the problem. It has nowhere been shown convincingly that the cotton farmer in the state has benefited from the scheme. There is considerable harassment of the cotton farmers due to malpractices at procurement centres, including delays in getting payment for the cotton tendered. As a result, even if prices are low in adjoining states, as is the case in 1998-99, some farmers prefer to sell their cotton in these states. Recent news reports indicate that cotton worth over Rs 75 lakh, which was being taken out of the state, was confiscated by police at the borders of the state. It is seen that in the years of low production of cotton, when the market prices in the nearby states are high, cotton is smuggled out from the state to take advantage of the higher prices in these states. In the years in which cotton crop is good and prices in the nearby states are low, huge quantities of cotton are smuggled into the state and brought to the procurement centres as the produce of Maharashtra farmers. It is necessary to remember that no state can operate as an island economy trying to rewrite the rules of the market place.

Eleventh, the scheme has made no difference to the productivity of or area under cotton in the state. The area under cotton in Maharashtra accounted for 35 per cent of the all-India total for the period 1993-94 to 1995-96. The area under cotton in the state did not record any increase during 1970-71 to 1990-91 on a point-to-point comparison. Only in 1996-97 the area under cotton in the state went up marginally. The yield (kg per hectare) of cotton in Maharashtra is the lowest among all major cotton producing states in the country and was only 111 in 1997-98 as compared with 691 in Madhya Pradesh, 486 in Andhra Pradesh, 435 in Gujarat, 379 in Tamil Nadu, 304 in Rajasthan and so on (Suresh Shah, 'This Season's Look Is Wet Cotton', *The Economic Times*, September 28, 1998). The difference may partly be due to the Maharashtra cotton being rain-fed but this cannot be the only reason. There has been no concerted effort to introduce new, hybrid, high yielding varieties of cotton, to adopt improved package of practices, to train farmers and so on. In this light too, it has to be accepted that the scheme has been a failure. In contrast, according to news reports, the CCI had earmarked an outlay of Rs 11 crore during the year 1997-98 for increasing the productivity of cotton crop in certain states in which it operates. Twelfth, the CCI, which operates on the basis of support price, has made profit for the 10th year in succession in 1997-98. In contrast, the Maharashtra cotton monopoly scheme has incurred a loss of Rs 1,152 crore till the end of 1996-97. The estimated loss for the year 1997-98 is of Rs 115 crore, making a grand total loss of approximately Rs 1,270 crore. It is necessary to note that, according to the provision of section 33(2) of the Act, the state government is bound to make good the deficit in the PFF. During the last four years since 1994-95, the deficit for the scheme is entirely due to the decision of the state government referred to earlier to pay advance additional price of Rs 2,100 per quintal for H-4 superfine variety of cotton and corresponding prices for the other varieties. One only hopes that this price will not be stepped up further to Rs 2,500 per quintal as demanded by the BJP in return for the BJP agreeing to the Shiv Sena proposal of supplying electricity free of cost to agriculture sector! Thirteenth, the state government has not been able to meet the large financial demands of the scheme. As a result, the Federation had to take deposits from the Mumbai Metropolitan Regional Development Authority (Rs 200 crore) and co-operative banks (Rs 212 crore). This is over and above the amount of Rs 743 crore which the Federation owes to the state government. Such funding of the scheme goes to show the seriousness of the problem.

Against this background, it is time the very justification for the further continuance of the scheme beyond June 1999 is examined afresh and steps are taken to wind up the scheme. The concepts such as monopoly procurement of cotton are a vestige of the Nehruvian socialist era and have been discarded the world over. One need not always believe in the magic of the market place but if one has to choose between the market and state trading in any commodity as a monopoly, one would have to opt for the former. Concerns regarding market imperfections are no doubt important but these can be dealt with by putting in place suitable regulatory mechanisms. Unfortunately, with its preoccupation with the perpetuation of the scheme, the government of Maharashtra has never explored these alternatives. It is high time both the state and central government show political courage and sagacity to do so. Let us hope the sun will finally set on this scheme in the god's good year 1999.

Worker Co-operatives in India
Lessons from Kamani

E A Ramaswamy

Is the Kamani experiment, the most celebrated case of worker take-over in India over? What are the lessons it offers?

KAMANI is undoubtedly the most celebrated case of worker take-over in India. Unfortunately, two of the three Kamani plants taken over by workers have ceased production. Kamani Tubes which was the first to be taken over and the object of so much attention and hope, ceased production in early 1997, and there seems to be little prospect of its ever returning to health. As for Kamani Metals and Alloys, the Mumbai plant ceased production in 1997, while the one in Bangalore is limping along. This is a tragic outcome for workers who sacrificed so much to revive the bankrupt Kamani firms and the trade union which spearheaded their campaign with such determination. While they have suffered an immense loss, worker take-over initiatives and the labour movement in general have been delivered a serious blow by this unfortunate development. While all this is extremely depressing, the Kamani experience also has valuable lessons to offer to whatever is left of the worker take-over movement.

The focus here will be on the internal structures, policies and arrangements which co-operatives need to evolve in order to survive and succeed. This does not mean that the external environment is unimportant. Government policies, legislative support and the extension of credit by banks and financial institutions are obviously of great importance. We also know that after liberalisation, the wider environment has become steadily unfriendly to co-operative effort. The policy environment in the country does not view worker self-help as an answer to the growing problem of plant closures and loss of employment. There is no clear strategy to help workers take charge of their own destiny. The government and the public sector are one with private capital when it comes to accepting closures and voluntary retirement as the only way to deal with the problem of industrial restructuring. These factors undoubtedly hamper the ability of workers and their unions to take over and manage industrial enterprises. Moreover, the internal structure and environment cannot in reality be separated from the external. When a firm is engaged in a struggle to find working capital, keep up production, pay wages and meet its minimum obligations to employees, survival becomes the sole objective. These harsh external realities are bound to cast their shadow on the internal environment.

While no one can refute any of this, it is equally true that co-operatives cannot function like other business enterprises. They have to evolve a culture which is distinctively co-operative. They must come up with internal arrangements which fit in with the co-operative way of life. Worker co-operatives have had to do go through this process of innovation everywhere in the world. There are no exceptions. In a country like India where industrial producer co-operatives are rare, there are no easy models to copy. The model has to be evolved through trial error. It is a difficult exercise full of trials and tribulations. Being a pioneer, Kamani has had to grope its way through this process. Kamani's experiments with worker ownership and self-management have much to tell other co-operatives, present and future, about the problems of internal governance. These lessons are too valuable to be lost sight of. It is for this reason that we must try and separate the internal environment and structure of Kamani from the external and see what lessons it has to offer.

Need for a Co-operative Culture

Internally, the fundamental problem at Kamani has been the absence of the spirit of co-operation. Formally and legally KTL and KMA are co-operatives, but a distinctly co-operative culture did not evolve. The period immediately after the buy-out was marked by tremendous enthusiasm and even euphoria. This found reflection in increased production, declining absenteeism, and the willingness and ability of workers to work without supervision. This was also the time which saw the first rudimentary attempts to put in place the institutions of self-governance such as the plant level committee and the general body of the co-operative, and provide education to members in the culture of co-operation. What did not take place, however, was a determined effort to press ahead with this process of experimentation and innovation with the institutions of self-management. Instead, the responsibility for running the company – and for institutional innovation – appears to have been transferred to professional managers. This was perhaps not surprising because there were no precedents within the country in worker buy-out to learn from, nor much of an exposure to international practice in this regard. With hindsight, of course, it does not come as a surprise that professional managers did not take even the first step towards institutional innovation. In the absence of a sustained effort to promote a sense of identification with the firm the initial enthusiasm was soon lost and the familiar industrial divide between workers and management – the feeling of 'them and us' – began to gain ground. Workers and managers started to blame each other for the poor performance of the company.

As the Kamani firms began to slide and the initial enthusiasm faded, workers who had willingly taken a wage cut began to compare themselves with those in neighbouring factories. It was especially hard to resist comparison with KEC, located in the same compound and organised by the same trade union, which paid its workers much better. Workers wanted a comparable livelihood and did not very much care if this came from a co-operative. Quite a few in fact felt that a co-operative ideology was incapable of providing a better livelihood and the solution to their predicament lay in a strong (and even totalitarian) managing director or take-over of the company by private interests. While these views were expressed a lot more by staff and supervisors, they also came increasingly from workers. Such perceptions can be attributed in part to the hardships experienced by workers and to propaganda by vested interests. On the other hand, the fact is also that little effort had been made to enable workers to view co-operation as a way of life. Co-operation is an ideological question, and ideologies do not simply happen. People have to be shown the centrality of the ideology to their existence, and this cannot happen without the evolution of co-operative institutions and education in the co-operative way of life, of which there has been very little. As a result, for most workers co-operation has been useful to the extent that it brought a closed factory back to life and restored jobs which would have otherwise vanished. That co-operation is also the way to sustain the Kamani firms and ensure their long-term future was hardly the common perception, with the notable exception of course of the core of trade union activists. In retrospect, the failure to cash in on the

early enthusiasm of workers and the expectation that managers would promote the co-operative spirit have turned out to be fatal mistakes.

The age profile of the workforce has tended to compound some of these problems. Most of the workers are well past middle age, and a good number are close to retirement. Indeed, Kamani had many superannuated workers on its rolls since there was no money to pay off their retirement benefits. The immediate concern of the retired and retiring workers has been their own future rather than the future of the company. They have argued, and from their own point of view quite rightly, that they have made enough sacrifices and the time must come to get something back in return. In addition to being uncertain about the future of the Kamani firms, they have felt that they themselves would not benefit even if the firms did turn around and become profitable. From their point of view, another group of workers might reap the fruits of a turnaround, whereas they have made all the sacrifice and endured all the hardship. Such workers seem to be among the strongest supporters of the view that the co-operative way of life has no future. They also have a natural interest in believing that it is somehow possible to sell of the property of the company and distribute the proceeds among shareholders.

Ownership Issues

Who owns a co-operative? The easy answer, at one level, is that a co-operative is owned by employees who have bought shares and others (such as the government and financial institutions) who may have contributed to its capital. While this large and amorphous group is ultimately the owner, there is a need for a more compact body which represents the ownership function from day to day and makes sure that the interests of those who have put in the capital are well protected. In some of the most successful producer co-operatives in the world, this function is discharged by the governing body of the co-operative. It is this body which takes policy decisions, appoints the management of the firm and supervises its performance. In the famous Mondragon co-operatives of Spain the governing body is in fact called the leadership. This leadership is clearly separated from management even though top managers too are members of the co-operative. Management is an executive function. It can contribute to policy-making, but the ultimate responsibility for policy lies with the leadership of the co-operative.

In contrast, the co-operative in Kamani appears to have taken a back seat. While its expressed intention is to take over and run the company, all it has done in practice is to elect a managing committee which in turn nominates two members to the board of directors. The co-operative and its organs, including its nominees on the board, scarcely think of themselves as having the right of ownership. They are willing to meet board members and make suggestions, but do not think that the board can be questioned or held accountable for its actions. The absence of an agency to adequately discharge the ownership function has been a glaring gap. While Kamani workers have waged and won an epic battle to gain control of their firm, the social engineering required to evolve self-management system has proved very much more difficult.

The more serious problem is that, after distancing itself from the ownership function, the co-operative has begun to act more like a trade union. Some members have contested elections to the managing committee on sectional platforms and tried to promote sectional interests after winning. Others have promised wage increases, knowing very well that this could not be achieved. Some have even demanded that the co-operative should be disbanded, the land in its possession sold off and the income distributed among the members. Not viewing themselves as the owners, they have made demands, leaving it to others to decide whether these demands can be conceded. It is difficult for most of us to think of a situation where those who own an enterprise make demands on it. What could their demands be? More importantly, before whom would they place their demands? In the view of the co-operative at Kamani, managing is the job of management. This has in effect meant that vital policy issues should be decided by the board of directors, with the managing director taking the lead. Acting in the belief that management is at the helm, and endowed with the power to consider any demand, the leaders of the co-operative have tended to place their demands before management.

As the co-operative sought to hand over more and more power to professional managers, a divorce between power and responsibility has taken place. In a bid to win favour with workers, senior executives have promised wage increases which the company could not afford, and which the board of directors was certain to shoot down. Such an arrangement could not – and did not – work. Kamani has had to change several chief executives within a short span of time because they took decisions without caring for their long-term consequences. The problem has been further compounded by a steady depletion in the number and quality of managerial personnel. Managers at the highest levels have failed to perform even basic managerial functions. There has in fact been a collapse of management.

The job of managers is to put resources to the best possible use. Since resources are by definition scarce, it helps no one to use them wastefully. The ultimate test of good management is the generation of wealth. One can argue that business must serve wider social objectives, but no social objective is served if an enterprise consumes more than it produces. Any form of economic activity, therefore, needs good management. Worker-owned firms need them all the more since it is only through economic performance that the ideology of self-management can be sustained in the long run. Workers of sinking firms might be happy in the short run that their jobs have been saved through self-help, but they would soon want decent living standards, a return on the capital they have invested and an appreciation in the value of that capital. No co-operative can satisfy its members for ever with the argument that jobs which might have been lost have been saved.*

It has not taken long for Kamani workers and their union to find out how critical good managers are to the success of the enterprise. In recognising the value of competent management, they have moved away from the growing tendency among organised labour to view managers as a parasitical class that earns too much for doing too little. The problem however is that recruiting and retaining talented managers has proved a Herculean task. The inability of the cash-strapped Kamani enterprises to compete for talent in the labour market is only part of the story. The more difficult task has been to find managers who can function in an enterprise whose workers are also its owners. Since there are few worker-owned firms in the country, it is no wonder if managers find this an unfamiliar arrangement. Their response to this predicament has been to swing between extremes. Some have taken the view that while workers might well be the owners of the firm, once inside the plant they are workers like in any other factory and must respect the authority of managers. Others have turned populist by going along with workers' wishes and demands. Neither response has been particularly helpful. Authoritarian attitudes do not sit well in a democratically owned

plant. Reckless populism, on the other hand, is an even bigger disaster. Even after a co-operative has been formed, the natural tendency of workers is to place their demands before managers. Having got used to the ways of the public and private sector, it is almost impossible for them to get awy from this mindset. When managers turn populist and concede what the firm cannot afford, workers scarcely realise that short-term benefits are being given at the cost of long-term survival. Where there is no strong ownership function, as has been the case at Kamani, the problem is to find someone who can apply the brakes on this dangerous practice. At Kamani, as we shall see, the union has had to take on this unpleasant task, with serious consequences for its own popularity and role clarity.

Co-operatives make greater demands on managers than either public or private sector enterprises. Managers must deliver efficient performance as in any other business, but must accept that ownership has been democratised and that the workers they are dealing with are not quite the same as in other firms. At the other end, the familiar symbols of ownership are no longer present. Worker-owned firms may have boards of directors, but true ownership vests with the co-operative and its managing committee, which too are democratic bodies with their own compulsion and contradictions. Worse still, there may be a vacuum in the place of ownership, confounding managers even further. As if all this is not sufficient, Kamani expected its managers to exhibit owner-like behaviour, assume owner-like responsibilities, and engage in the social engineering necessary to evolve self-management structures. And all this was happening at a time when the managerial force was being seriously depleted and managerial quality was insufficient to meet even normal expectations. There are no easy solutions to the problem of finding suitable managers for worker co-operatives, especially if the co-operative cannot compete in the labour market for managerial talent.

Role of Union

Worker take-over of collapsing firms is such a complex and daunting task that there is no chance at all that it can happen without an uphill battle by a trade union. The campaign waged by the Kamani Employees' Union (KEU) to take over Kamani Tubes and Kamani Metals and Alloys is too well known and well recognised to need repetition. To set the record straight, unions which favour worker take-over are an exception, and the KEU is most certainly one of them. The stand of the vast majority is simply that the public sector should not privatise and the private sector should not be allowed to close down.

What should a trade union do after it has brought a closed unit back to life? What is the legitimate role of a union in a worker-owned enterprise? Do worker-owned firms need a trade union in the first place? What kind of grievances might workers have that require a union's intervention. Although these are new and unfamiliar questions to most of us, other industrial societies have faced them and come up with some answers. We can learn from their experience, although there are important differences between their situation and ours which must be kept in mind. Elsewhere in the world, the initiative to form worker co-operatives has not come from trade unions. These co-operatives have been organised from scratch and not salvaged from bankruptcy through take-over, and a trade union has mobilised the workers subsequently, as in any other firm. In contrast, Indian producer co-operatives formed under the Sick Industrial Companies Act (SICA) on the directions of the BIFR would not have been born if it had not been for a union. The trade union is not a subsequent formation, but the very force which has given birth to the co-operative. It is against the backdrop of this difference that we must consider international experience.

At one extreme, it has been argued that since employee ownership does away with the divide between labour and capital, a trade union is unnecessary. This is the stand of the Mondragon co-operatives in Spain which permit neither trade unionism nor any form of industrial action. Strikes are considered by Mondragon to be an attack on the co-operative and punished with dismissal. But of course, Mondragon has strong democratic traditions and powerful democratic institutions evolved over decades of experimentation to ensure that workers have an effective voice at every level. Trade unions do exist in most other co-operatives, but they rarely perform conventional union roles. Industrial action loses its relevance in co-operatives since workers would eventually have to aim a strike at themselves. Moreover, it is considered absurd for a union to bargain for higher wages with a management that has no ownership rights. Trade union responsibility therefore boils down to protecting workers against arbitrary and unfair treatment in the matter of discipline, promotions and the like which can take place even in a worker-owned firm. Trade union relevance is limited largely to redressing micro-level grievances.

The situation at Kamani is entirely different. The trade union has had to take on diverse roles, some of them in direct conflict with its primary objective as a union. With the co-operative failing to act as the owner of the business, ownership has become a trade union responsibility. Worse still, the co-operative has tended to act like a trade union, forcing the union to take positions which seem anti-labour. There has been such a stark reversal of roles that the common remark at Kamani is that the co-operative has become the union while the union has become the co-operative. Populist managers have added further to the union's burden by making promises that canot be kept. Hard pressed workers accustomed to viewing managers as anti-labour are unable to comprehend why their own union should come in the way when management is so generous.

It is awkward for a union which should be asking for more to plead that workers should accept less, which is precisely what the KEU has had to do. Few institutions at Kamani have suffered as much as the KEU from the lack of role separation between management, co-operative and trade union. By taking on all three roles the union has not only not achieved very much for the Kamani firms, but brought enormous problems upon itself. For a union, the price of extreme role reversal is loss of popularity, and the KEU has had to pay that price. It has been held responsible by many sections for everything that has gone wrong. Among the few to empathise with the union's predicament are its own cadres for whom trade unionism is truly a way of life.

Kamani's experience tells us not only what the union should not, or cannot do in a worker co-operative, but also what it should. Indian trade unions cannot retreat into the shadows or limit themselves to the redressal of shopfloor grievances in the manner of unions elsewhere in the world. They have brought the co-operative to life and they are among the few institutions to have an interest in their success. The environment is so hostile for co-operatives that without a union they would be friendless. And yet, the union cannot become labour, management and owner rolled into one. These roles have to be played by others if co-operatives are to have a chance of survival. The union's role is to experiment and innovate the institutions of self-governance. It has also to be the watchdog which oversees these institutions to make sure that they function as they should.

Worker co-operatives have to find ways of preserving and harnessing the enthusiasm generated among members in the early days of their formation. Without popular participation, the spirit of co-operation is impossible to sustain. One of the most useful ways of promoting participation is to involve workers in the reorganisation of work. Industrially developed nations have been experimenting with employee involvement in the labour process for well over a decade. Unlike in earlier times when workers were expected to merely carry out the directives of their superiors, it is now acknowledged that they have a fund of knowledge which can help improve the production process. The effort is to get workers to find ways of accomplishing tasks more efficiently with less materials, in less time, with less effort, with better quality, and with greater safety. In the quest to promote efficiency, organisations across the world have been promoting such direct participation of ordinary working people in the nitty-gritty of their work. Improved efficiency is only one of the benefits of such participation. A more fundamental outcome is the sense of involvement with the firm and its objectives. There is much that co-operatives can learn from these experiments. Direct participation in work should be far more easy and very much more natural where workers are also the owners of the business. It is an interesting new way to promote the spirit of co-operation, sustain the enthusiasm of workers and harness their energies for a common purpose.

In retrospect, the main lesson of the Kamani experiment is that worker-owned firms have also to become worker-controlled and self-managed if they are to survive. Ownership is only the first step, and perhaps the simpler one. Once a firm has been taken over by a worker co-operative, ways have to be found for putting in place democratic control and management structures. This job must begin when workers are still full of enthusiasm. It cannot wait for a later date. While it is true that worker co-operatives are confronted with a hostile world internal reform cannot be treated as a secondary task that can wait until the external constraints are overcome. On the contrary, co-operatives need internal struggle to be able to face external threats. Kamani is not alone in this. A major weakness of co-operatives in general is that while they are worker-owned, they are neither worker-controlled nor worker-managed.

Protectionism vs Unfair Trade in Steel

C Satapathy

Suddenly everyone seems to have forgotten the theory of competitive advantage and the benefits of free trade. Practically every country is accusing the rest of the world of dumping steel in its backyard and trying to protect its steel industry, backtracking on free trade promises. Perhaps this is the right time to call a halt to the protectionist trend and start a fresh round of discussions for a Multilateral Steel Agreement which would ensure some order in steel trading.

ABRAHAM LINCOLN is said to have argued, "If I buy a foreign good, I have the good and the foreigner has the money; whereas if I buy the same good locally, I have the good and our country has the money, too."[1] Economists may call such protectionist arguments fallacious but such arguments continue to be heard even today. According to the latest (November/December 1998) worldwide opinion poll by *The Economist*, 56 per cent of the Americans favour protectionism to only 37 per cent favouring free trade.[2] The question asked was: 'Which of the following two broad approaches do you think would be the best way to improve the economic and employment situation in this country – protecting our local industries by restricting imports, or removing import restrictions to increase our international trade?' Worldwide, the protectionists were 47 per cent against 42 per cent free traders. Of the 22 countries surveyed, protectionists outnumbered free traders in USA, UK, France, Italy, Canada, Australia, India, Philippines, Brazil, Chile, Mexico, Russia, Malaysia and Indonesia. Free traders were in greater number only in the remaining eight countries: South Korea, Taiwan, Germany, Thailand, Japan, Hongkong, China and Spain. It is often said that in good times people are happy to enjoy the benefits of free trade whereas 'recession is the midwife of protectionism'. However, it is inexplicable by such conventional logic that eight years into an economic boom, only 37 per cent Americans favour free trade, whereas in the crisis-ridden South Korea free traders far outnumber the protectionists despite the fact that "finding a job is harder than pulling a star out of the sky" in South Korea today.[3] Nevertheless, the US continues to project itself as the staunchest defender of free market!

For the past few months, a lot of noise is being made in the US against increased steel imports. On October 15, 1998, the US House of Representatives passed a resolution with an overwhelming majority of 345 to 44 that the US president should review imports of steel from Australia, Brazil, China, South Africa, Ukraine, Indonesia, India, Japan, Russia and South Korea and should immediately consider imposing a one-year ban on imports of all steel products. It also called upon the president to establish a task force to closely monitor imports of steel and to submit a report to the Congress in the first week of January 1999. On November 13, 1998 the United States International Trade Commission (ITC) gave a finding that US steel industry was threatened by material injury by import of hot rolled steel products from Brazil, Japan and Russia. The Commission's determination was unanimously supported by all the six commissioners: three Democrats and three Republicans. During his visits to Japan and South Korea in late November 1998, president Clinton not only questioned increased steel exports to the US but also warned, "since the US economy has continued to grow, the American people and the American political leadership have supported keeping the US market open, but if there is a perception of unfair trade the consensus could disappear". *The Public Ledger* also reports on December 14, 1998 that since the outbreak of the Asian crisis the US government has taken a protectionist stance particularly in the steel industry and that it has even backed local producers who have filed law suits against competitors from Russia and Japan. The United Steel Workers of America Union has urged that the administration has an obligation to stick up for the workers and not just give their jobs away. Massive rallies held across the mid-west and television advertisements exhort Americans to 'stand up for steel'. US Senate has a powerful 40-member steel caucus and several senators are critical that the US president has not done enough for protecting the suffering American steel workers. Senator Robert Byrd has accused the president of "taking baby steps when

leaps and bounds are needed". Senator Jay Rockefeller feels that the president is more concerned about the global economic effect of taking action on steel than protecting suffering American workers. The strongest words, however, came from Republican senator Arlen Specter, chairman of the Senate steel caucus who says, "you have a steel industry haemorrhaging with the flooding of our markets with foreign dumped steel, causing the loss of thousands of jobs, and the administration is applying a small Band-Aid". In response to the American Congress Resolution of October 15, 1998, the Clinton administration has since released a seven-point plan against high level of steel imports on January 7, 1999. These are:

(1) Bilateral talks with Japan, Russia and Korea to reduce exports to the US.
(2) Strong enforcement of US trade law promising to expedite anti-dumping and anti-subsidy action.
(3) Expediting Section 201 safeguard action.
(4) Instituting early warning system to monitor steel imports.
(5) Restoring global economic growth to ensure market-based reform in distressed steel exporting nations.
(6) $ 300 mn tax relief to the steel industry over a five-year period.
(7) Assistance for out of work steel workers.

There are reports of increased trade tension between Japan and US. Charlene Barshefsky, the United States Trade Representative (USTR) says that steel is perhaps the most visible element of this tension.[4] There are also warnings from US to Japan to cut steel imports quickly or face retaliatory action. South Korean Pohang Iron and Steel (POSCO), the second largest steel maker in the world, has since announced voluntary cut in exports rather than risk retaliatory action. The US is also blaming EU that it is not absorbing enough steel imports from Asia. On the other hand, steel workers of Europe, in a petition to EU, have criticised the US decision to impose dumping duties saying, "this leads to the diversion of even more steel deliveries to the EU".

Under the US domestic law, the industry and the government can typically take recourse to any of the following actions to protect domestic industry:

(a) Levy of countervailing duty and anti-dumping duty

US industries may petition the US government under Title VII of the Tariff Act of 1930 for relief against dumped imports sold at less than fair value or against imports which are subsidised by foreign governments. The US department of commerce determines whether dumping or subsidising exists and if so, the margin of dumping or amount of subsidy. The ITC determines whether the dumped or subsidised imports have materially injured or threatened to materially injure the US industry. On a positive determination, the secretary of commerce issues a countervailing duty order (in a subsidy investigation) or an anti-dumping order (in a dumping investigation) which is enforced by the US customs service. These investigations are referred to as '701' investigations and '731' investigations after the respective initial sections in the Tariff Act of 1930 for countervailing and anti-dumping duties.

(b) Section 201 action

Under Section 201 of the Trade Act of 1974, domestic industries seriously injured or threatened with serious injury by increased imports may petition the ITC for relief. Section 201 of 1974 Act does not require a finding of an unfair trade practice as does the Act of 1930. If ITC determines that an article is being imported in such increased quantity that it is a substantial cause of serious injury or threat of injury, it recommends a relief to the president who makes the final decision. Such relief can be in the form of tariff increases, quantitative restrictions or orderly marketing agreements. ITC can conduct investigation under Section 201 upon receipt of a petition from a trade association, firm, recognised union, or a group of representative workers. It can also conduct similar investigation on a communication from the president or the USTR and also upon receipt of a resolution of the House Committee on ways and means or Senate Committee on finance; or upon its own motion.

(6) Section 301 action

Section 301 of the Trade Act of 1974 is the principal statutory authority under which the US imposes trade sanctions on foreign countries. By providing the means of a credible threat of retaliation, it empowers the US government to negotiate and enforce trade agreements. Section ·01 investigation can be started on a petition to the USTR by an interested party. The USTR can also self-initiate a Section 301 investigation for trade retaliation. The USTR is authorised to take retaliatory actions, subject to the direction of the president, including imposition of duties and import restrictions on goods.

During the recent past, several of these actions have been initiated at the instance of US steel industry and US steel workers. These include:

(i) '701' and '731' investigations against stainless steel plate from Belgium, Canada, Italy, Korea, South Africa and Taiwan (May 1998).
(ii) '731' investigations against stainless steel round wire from Canada, India, Japan, Korea, Spain and Taiwan (June 1998).
(iii) '731' investigations against stainless steel sheet and strip from France, Germany, Italy, Japan, Korea, Mexico, Taiwan and the UK (August 1998).
(iv) '701' and '731' investigations against hot rolled steel products from Brazil, Japan, Russia (September 1998).
(v) '701' and '731' investigations against stainless steel wire rods from Germany, Italy, Japan, Korea, Spain, Sweden and Taiwan (September 1998).
(vi) '731' investigations against carbon steel flat products from Russia, Brazil and Japan (September 1998).
(vii) Section 201 petition against steel wire rod from 39 countries including India (December 1998).

In addition to taking these actions, Charlene Barshefsky, the USTR has warned Japan on January 12, 1999 to cut steel exports quickly or face retaliatory action. Apart from expediting pending anti-dumping cases and initiating fresh ones on other varieties of steel, the USTR is determined to self-initiate retaliatory action under Section 301 against Japanese steel imports if Japan does not take urgent action to reduce its steel exports to US. The warning has been subsequently reiterated by president Clinton in his State of the Union address in the absence of suitable response from Japan.

While US steelmakers are crying foul against increased steel imports, which grew by 30 per cent in the first 10 months of 1998, similar noises are also being made elsewhere. EU for the first time became a net importer of steel registering a 70 per cent increase in imports in the first half of 1998. The steel makers and workers in EU are also agitated and at their initiative, the following actions have been initiated recently:

(i) EU opened investigation into dumping of hot rolled coils from Bulgaria, India, Iran, South Africa, Taiwan and Yugoslavia on January 7, 1999 on a complaint filed by Eurofer, association of European producers in November 1998. The imports are said to have increased 200 per cent in 1998 with dumping margins up to 67 per cent.

(ii) EU has fixed agreed quotas on steel imports from Russia and Ukraine and autonomous quotas in respect of steel imports from Kazakhstan.

(iii) Eurofer has also filed anti-subsidy cases against hot rolled coils from India, South Africa and Taiwan in December 1998.

(iv) EU has imposed countervailing duties against stainless steel bars from India.

(v) EU has started investigation into dumping of stainless steel plates from South Africa and Slovenia.

(vi) EU has imposed anti-dumping duties against seamless tubes from Russia, Romania, Czech Republic and Slovakia. Dumping complaints have also been filed against similar imports from Ukraine and Croatia.

US and 15 member states of EU are not the only countries that have taken recourse to such protective action against import of steel. There are 21 other countries such as Argentina, Brazil, Canada, Chile, Colombia, Czech Republic, Egypt, India, Indonesia, Israel, Malaysia, Mexico, Philippines, Russia, Singapore, South Africa, Taiwan, Thailand, Turkey, Venezuela and Viet Nam which are either investigating dumping cases or have imposed anti-dumping duties.[5] In addition, Hungary has imposed quotas on steel imports from Czech Republic and is considering similar action on imports from Romania and Poland. India has recently imposed anti-dumping duties on hot rolled steel products from Russia, Ukraine and Kazakhstan. It has also fixed floor prices for seconds and prime grade steel originating from all countries. Indian steel industry is going through difficult times both on account of cheaper imports at home as well as its exports to major markets like US, EC and Canada being subjected to protectionist measures. Nearly all the major steel producing and consuming countries numbering about 40 are involved in restricting their doors to foreign imports and protecting their own domestic industries. Rightly *Metal Bulletin* bemoans, "Whatever happened to the lofty ideals of free trade and non-discrimination espoused by most of the world's trading nations at the formation of the WTO only four years ago? As far as steel is concerned, national markets are steadily, one by one, closing to imports. Protectionism is becoming more usual than free trade."[6]

Suddenly, everyone seems to have forgotten about the theory of competitive advantage and the benefits of free trade. Practically every country is blaming the others of dumping steel in its backyard and is trying to protect its own steel industry back-tracking on free-trade promises. The trend is typically protectionist, only difference is that instead of hiking import tariffs or imposing quotas on imports, recourse is being taken to anti-dumping, countervailing and safe-guard actions as these are WTO mandated. Anti-dumping duties are particularly popular as these "can be presented not as protection but as redress against unfair protection".[7] Indian exporters have often complained about trade data being manipulated to prove dumping/injury and there being certain lack of transparency in the methods followed in other countries. Often considerable damage is caused to the trade by merely starting dumping or anti-subsidy investigations. Sometimes these are politically motivated and upon failure of one investigation, another one is started. Moreover, anti-dumping duties are heftier than the normal tariffs of many developed countries and once imposed, they remain for five years. The legal costs of fighting these cases are also particularly high in the US and EU.

Many believe that the recent state of anti-dumping and other measures initiated worldwide in respect of steel imports are not so much to prevent unfair trade as to bring back protectionism by the backdoor. After all, such anti-dumping action is hardly on account of predatory pricing. Studies have shown only 3 per cent anti-dumping cases in EU and 4 per cent anti-dumping cases in US involved possible predatory pricing. Such studies also show that "anti-dumping duties are generally twice as costly to the economy as equivalent import tariffs" [8] More and more of such protectionist action by US and EC and followed by others can only push the international trade in steel from one crisis to another.

The present crisis in steel trade can be traced back to the earlier financial crisis of Asian countries and the near collapse of Russian economy. The crisis in Asia resulted in less construction and other infrastructure building activities. This pushed down Asian demand for steel. In turn, even the steel produced in Asia became surplus. Diversion of Russian and Asian steel to US and EU markets was the only alternative to cutting down production. Over supply pushed down prices everywhere. Over the years, steel capacity has been enhanced in Asia and elsewhere anticipating increased use. The extent of drastic fall in demand in Asia for steel in 1998, which led to global over supply, and consequent price fall was perhaps beyond anyone's anticipation. Steel requires very heavy investment and long period to commission a plant. Uncertainty in steel demand therefore has very disastrous consequences for the industry. In many ways, steel also mirrors the future of other commodity markets. As such, the world community must address the present crisis in international steel trade with greater political wisdom and statesmanship. What is at stake today is not only the 250 million tonnes of steel traded internationally per annum but the repercussions of the steel crisis in all other markets. Trying to cut each other's throat by imposing protectionist measures in the name of curbing unfair trade is not going to help matters. Few years ago, discussions on a Multilateral Steel Agreement had not succeeded. Perhaps this is the right time to call a halt to the protectionist trend in steel trading and start a fresh round of discussions for a Multilateral Steel Agreement which would ensure some order in steel trading. So far US has been merely talking tough apart from initiating several trade disputes and threatening further action under Sections 201 and 301 of its trade law. Once these actions fructify and the threats are carried out, doors of the world's biggest steel consumer will be closed plunging the steel trade to a greater crisis. World leaders should utilise the opportunity provided by the somewhat soft stand of the present US administration to work out a new world order for steel trade before it is too late. As early as the first week of November 1998, ambassador Hans Colliander, chairman of the OECD Steel Committee had warned, "the steel trade is one of the first sectors to experience serious disturbances stemming from the financial and economic crises, but that other sectors are also affected. Steel producers and especially governments in all regions of the world should, therefore, be aware that their response to the problems facing steel could signal a precedent for other sectors in the economy".[9] Threat of protectionist action from all round the world, however, indicates that no one is prepared to listen to such advice.

[The views expressed are personal]

Notes

1 See *Microeconomics*, by R G Lipsey et al, Harper Collins Publishers, New York, 1990
2 See 'Angus Reid/Economist Poll', in *The Economist*, January 2, 1999
3 Cho Eun Young, a Korean University student quoted in *Far Eastern Economic Review*, January 14, 1999
4 See *Financial Times*, January 13, 1999
5 See *Metal Bulletin*, January 25, 1999
6 Ibid
7 See 'Unfair Protection' in *The Economist*, November 7, 1998.
8 Ibid. Study by Patrick Messerlin, economist at Institut d'Etudes Politiques.
9 See *World Trade Scanner*, December 1-15, 1998

Oil Politics in Central Asia

R G Gidadhubli

The Caspian region, rich in oil and gas reserves has become the focus of intense competitive interest among the big powers. Adding to the complexity of the situation is the fact that the existing pipelines pass through Russia which is both a partner and a competitor in the energy field in the region.

ENERGY rich Caspian Sea has attracted major countries of the world for exploiting the potential resources of Caspia. Moreover, the former Soviet republics of Azerbaijan, Kazakhstan and Turkmenistan which are also sharing the Caspian Sea along with Russia and Iran are asserting their sovereign rights after the Soviet break-up for the exploitation of oil and gas resources of this inland sea. Caspia has become a scene of game politics on an international scale. In particular, there has been active interest in the US and enhanced activity among the policy-makers, energy groups and academics on the Caspian Sea. For India which is one of the major importing countries of oil in the world market, current developments in the Caspian region should be of considerable interest. As Dennis Kirillov points out in an article 'Caspia Remains Sea of Unresolved Problems' in Moscow's *Finansavaya Izvestiya* (April 8, 1998) there is a realisation that Russia is losing its influence on the Caspian Sea and that it was necessary for Russia to retain the remaining power. Russia's influence on Caspia seems to have been affected on two counts - Russia's policy status on Caspia; and Russia's pipeline network connecting the Caspian Sea with the rest of the world.

Caspia's Status

After the Soviet break-up, differences have arisen among the Caspian Sea States (CSS) on the status of the Caspian Sea. Russia possibly wanted the Russo-Iranian treaty of 1921 and 1940 to be valid and hence Russia's contention was that the Caspian Sea should be exploited with the agreement of all littoral states without dividing the sea into national sectors. In this regard there was convergence of the position of Russia and Iran that both the sea bottom and water surface of the Caspian Sea be utilised equally by the CSS. But this view was not acceptable to Azerbaijan and Kazakhstan possibly because they accounted for 80-90 per cent of about 115-130 billion barrels of the proven oil resources in the Caspia (see table). On the other hand, the share of Russia and Iran are reported to be negligible. On the status of Caspia, Azerbaijan wanted to treat it as a lake dividing the sea into national sectors both the bottom of the sea as well as the volume and surface of water thus providing exclusive rights of the state. On the other hand, Kazakhstan wanted to divide Caspia on the basis of the 'law of the sea' thus providing division of only the bottom of the sea into national sectors (*Finansavaya Izvestiya*, April 8, 1998). Russia's 'collectivist model' for the exploitation of Caspia has not received favourable response from other states. According to Rajan Menon (1998), "Russia itself did not push the proposal aggressively due to bureaucratic infighting in Russia's fragmented state which made a coherent policy on the Caspia well nigh impossible". In the opinion of Kirillov, indecisiveness on the part of Russia's ministry of foreign affairs (MID) about the status of Caspia affected the interests of Russian firms.

Even as the status of Caspia was being discussed, Azerbaijan, Kazakhstan and Turkmenistan, exercising their sovereign rights, formed an international consortia and called for tenders for the exploitation of oil and natural gas. Azerbaijan formed the Azerbaijani International Oil Consortium (AIOC) which includes British Petroleum, Amoco, Pennzoil, Unocol, Exxon, Lukoil of Russia and Turkish Petroleum and the Azerbaijani state oil company, SOCAR. Azerbaijan also set up another consortia, the Caspian International Operating Company (CIOC) in which LukoilAgip, Pennzoil, Lukoil, SOCAR and Agip are the shareholders. Similarly, Kazakhstan formed the Caspian Sea Pipeline Consortium (CPC) which includes Chevron, Rosneft of Russia, Kazak State Oil Company, etc. According to some Russian reports, it was not represented in the discussions while forming the consortia although the fact remains that Russia's privatised energy firms such as Rosneft, Gazprom and Lukoil did participate in some of these international consortia.

Inability to arrive at the consensus among the CSS on the status of Caspia has often created problems for Russia. For instance, Russian firms Lukoil and Rosneft which participated in a major oil project had to withdraw from it since it was said to be located in an 'intermediate zone' which Azerbaijan called 'Kyapaz' and Turkmenistan called it 'Serdar' and both claimed rights over it and called for tenders for exploiting oil. In a similar way Russia called for tenders for exploiting oil in Sever (northern) zone in which Lukoil and Yukos(of Kazakhstan) participated. But it was later realised that it partly fell in the Kazakhstan sector.

In April 1998 Russia and Kazakhstan became 'shore brothers' after working out a preamble which ensures 'sovereign rights of both the countries for the use of sea bed' (*Finansavaya Izvestia*, April 29, 1998). An agreement to this effect was signed by Boris Yeltsin and Kazakh president Nazarbaev in October 1998 during the former's visit to Kazakhstan. However, Azerbaijan looked at this with indifference. The Turkmen president also seemed to be not in favour of the Russia-Kazakhstan position that the Caspian Sea bed but not its waters be divided into national sectors (*RFE-RL Newsline*, May 19, 1998). During the visit of Boris Pastukhov, Russia's deputy foreign minister to Baku in April 1998 a protocol was signed between Russia and Azerbaijan to divide the bottom of Caspia on the basis

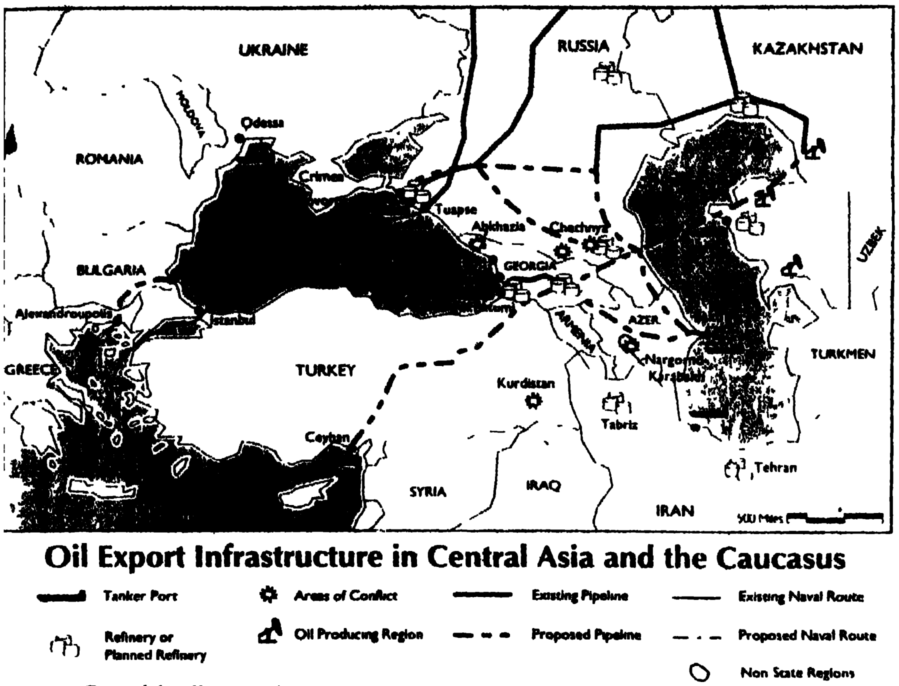
Table: Oil and Gas Resources of Caspia and Central Asia*

Country	(Billion Barrels)			(Trillion Cubic Feet)		
	Proven Oil	Possible Oil	Total Oil	Proven Gas	Possible Gas	Total Gas
Azerbaijan	3.6-11	27	31-38	11	35	46
Kazkhstan	10-16	85	95-101	53-83	88	141-171
Russia	0.2	5	5.2	na	na	na
Turkmenistan	1.5	32	33.5	98-155	159	257-314
Iran	0	12	12	0	11	11
Uzbekistan	0.2-0.3	1	1.2-1.3	74-78	35	109-123

Note: * The energy wealth of Russia and Iran depicted in the table covers only their Caspian Sea zone.

Source: Rajan Menon 'Treacherous Terrain: The Political and Security Dimensions of Energy Development in the Caspian Sea Zone', NBR ANALYSIS, Vol 9, No 1, February 1998, p 11.

MAP: OIL EXPORT INFRASTRUCTURE IN CENTRAL ASIA AND THE CAUCASUS



Source: Central Intelligence Agency

of the 'middle line' and other norms of international law. According to Kirillov it amounted to a set back from the original position thus making for a loss of influence in the Caspian region.

Another significant issue that Russia has been facing is with regard to the network of pipelines for transporting oil and gas from the Caspian region. In the Soviet era, pipelines from Azerbaijan and Kazakhstan passed through Russia either for consumption within the country or for export. Hence Baku-Grozny-Novorussisk pipeline (known as the northern route) from the Azerbaijan capital to the Black Sea port in Russia was the route for exporting oil. For the Caucasian republic of Azerbaijan a pipeline passing through the neighbouring republic of Georgia would have been the nearest for exporting oil through the Black Sea. But the difficult mountainous terrain in Georgia possibly favoured the northern route. But more importantly in the past all decisions for production and transportation of oil and gas resources in the whole country were made in Moscow. The republics had hardly any say in the matter. Since the Soviet break-up alternative routes technically more hazardous, are being considered. In fact, political considerations have become more important. In Azerbaijan, Kazakhstan and Turkmenistan, oil and gas are the principal sources of revenue and exporting them to earn hard currency is vital for their successful economic transition. During the last 4-5 years, there have been many occasions when Azerbaijan and Kazakhstan have felt that Russia was using the pipeline to its own advantage affecting the interests of other Caspian Sea states. Russians have their own story to tell. A Russian analyst observed that for the Caspian states their national interest is top priority and the common interest of partnership with Russia is given a secondary place. An article in *Finansovaya Izvestiya*, April 28, 1998 observes that Turkmenistan proposed that Russia should purchase 20 million cu m of gas to be supplied to Ukraine through Russian pipes by paying 50 per cent of the cost in hard currency while Russia was unable to get $ 1 billion from Ukraine for gas supplied in 1997.

Western countries have also realised that Russia will have powerful leverage if they depended only on the northern route. The US, UK, etc, have strongly supported the opening of an alternative route passing through Georgia and Turkey to transport oil from the Caspian Sea. In a detailed study of oil politics in the Caspian region, Ariel Cohen (1996) has opined that after the Soviet disintegration, the Russian military and security services intended to restore Moscow's control over the region and over the pipeline routes (see map). In his view the US should not allow Russia to play a dominant role in Caspia as "otherwise Moscow will capture almost monopolistic control over this vital energy resource, thus increasing western dependence upon Russia-dominated oil reserves and export routes". Russia hence can be an equal partner in the development of energy resources in the non-Russian sectors in the Caspian region. Moreover, western oil firms want an additional and competitive source of energy supplies to the Persian oil to meet their future needs.

A somewhat different perception of the role of Russia in Caspia is to be seen in the observation of Federico Pena, US Department of Energy, that the US looked forward to co-operation and collaboration in the Caspian region through partnership with Russian companies. He also asserted that Caspia was strategically important for the US and that US companies were playing a leading role in the region. This is evident from the multiple pipeline strategy that the US has been promoting in Caspia, which in effect, reduced the role of Russia's northern route in exporting oil from this region.

In 1995, the AIOC decided to export oil through the western route (Baku-Supsa port on the Black Sea in Georgia) as well. Part of the Baku-Supsa pipeline needed to be reconstructed as it was worn out. But there was support for this proposal not only from Georgia which would be a beneficiary since the pipeline would bring revenues to the country, but also by western oil firms. The Baku-Supsa 700 km pipeline which is expected to cost about $ 1.1 billion is in the final stage of construction and is expected to be completed by October 1998.

Another western route has received wide publicity for transporting oil from Azerbaijan to the western markets, and that is the proposed pipeline from Baku to Ceyhan (port city on the north-east Mediterranean Sea in Turkey) passing through the territories of Azerbaijan, Georgia and Turkey. This 1900 km pipeline is estimated to cost about $ 3 billion. For obvious economic and political reasons, Turkey has been taking an active role in seeking western assistance for the route. Reports indicate that US policy-makers and oil firms have strongly supported this route. It appears that groundwork for this proposal was laid during the visit of Federico Pena to the Caspian states and Turkey in 1997. It is contended that this route will serve the national interest of the US in meeting part of its own energy needs over the next 25 years when global energy demand is expected to double. Moreover, the proposed pipeline, it is argued, will bring economic prosperity to young democracies of the countries of Caspia-Caucasia which will ultimately facilitate their political stability. A mea-

sure of great significance in this regard is that in May 1998 energy ministers of Turkey, Azerbaijan and Georgia signed a memorandum affirming support to the Baku-Ceyhan pipeline and that the presidents of the three countries are expected to sign soon. This will give a boost to US policy-makers and the oil companies of the western countries.

Russian firms such as Lukoil, Rosneft, etc, have been participants in Azerbaijan's international oil consortia of AIOC and CIOC enjoying 7-10 per cent share. But in the three latest contracts signed in May 1998 by the Azerbaijan government in the Kyurdashi field with proven reserves of 100 million tonnes, south-west Gobbustan field with 50 million tonnes and Kyursangi oil deposits, Russian firms are conspicuous by their absence, whereas Japan's Mitsui, Turkey's Tospo, US's Union TEXAS, and British and Saudi firms are represented. Azerbaijan's SOCAR firm holds 40-50 per cent of shares in each of the three projects (*RFE-RL Newsline*, June 3, 1998).

Kazakhstan is another important Caspian country with huge reserves of oil and gas. In the Soviet era oil from this republic was transported through the pipelines passing through Russia to Novorussisk port after the Soviet break-up, Kazakhstan has often experienced difficulties in exporting oil through this traditional route. Hence efforts have been made to find alternative routes to export oil and earn much needed hard currency. To avoid constraints of exports through Russia, Chevron located in Kazakhstan was sending oil from Tengiz oil fields to Baku by barge and then by rail to the Georgian port of Batumi on the Black sea bypassing Russia. In January 1998 an oil transshipment terminal was opened at the Azerbaijani port of Dyuband south of Baku for handling Kazak oil (Summary of World Broadcast (BBC) Former USSR, January 9, 1998). Kazakhstan explored another alternative route – a swap deal with Iran under which Kazakhstan sends oil to the northern part of Iran and in turn, Iran exports equivalent quantity of oil from its southern ports in the Persian Gulf. In addition to these alternatives, Kazakhstan had been considering an eastward route as China is a major market for oil. Prospects for this proposal possibly became brighter when Chevron started exporting Tengiz crude oil to the refinery at Urumqui in China's Xiniang region by rail. In turn, considering vast resource potentialities of Kazakhstan and its own energy needs, China has invested in Aktyubinsk and Uzen fields in western Kazakhstan. Further in February 1998, the Chinese National Oil and Gas Corporation (CNOGC) paid $ 320 million to Kazakhstan's Aktyubinsk Oil and Gas Company for 60 per cent of its shares. (*Kazakhstanskaya Pravda*, February 21, 1998). Rajan Menon comments that this proposed 6,000 km eastern pipeline involves a large investment and it was doubtful whether China could raise that much money and whether it could be commercially viable. According to some experts barring the distance factor, this eastern route does not involve any third country and would have fewer legal and political problems.

Notwithstanding these developments, Russia seems to have made efforts to retain closer links with Kazakhstan in the Caspian energy field. This is evident from the fact that Russia is one of the important partners in the 1,580 km Caspian Pipeline Consortium (CPC) which carries oil from Tengiz region to a new terminal near Novorussisk on the Black Sea which can export 67 million tonnes of oil per year. Russia's share in the CPC is about 24 per cent, Chevron 15 per cent, Mobil 7.5 per cent, etc. Equally significant is the fact that in January 1998 Russia's Lukoil and Kazak oil have entered into an agreement for joint drilling in the Caspian region which will make Russia's Lukoil the biggest investor raising its share capital to $ 740 million in seven major oil fields by the year 2000.

Turkmenistan is in a less enviable position. This is partly because Turkmenistan's proven reserves of oil are relatively less although that of natural gas are abundant (see table). But Turkmenistan is more dependent on Russia's Gazprom company which handles almost the entire transportation of 40 billion cubic metres of natural gas supplying mainly the former Soviet republics such as Ukraine, Georgia, etc. However, to increase exports to hard currency countries and to reduce dependence on Russia, Turkmenistan has been exploring alternative routes. In October 1997 Central Asia Gas Pipeline (CENTGAS) an international consortium was formed with the participation of others such as UNOCOL, DELTA of Saudi Arabia, and firms from South Korea, Japan and Pakistan to construct 1,271 km pipeline from Turkmenistan to Multan in Pakistan at a cost of about $ 2 billion. The construction is to start by December 1998 to be completed by the year 2001. As per some reports, it is envisaged, though very unlikely in the foreseeable future, that the pipeline could be extended to India with an additional cost of $ 600 million for an additional distance of 640 km. But this route has to pass through Afghanistan and the political situation in that country will be a critical factor. Turkmenistan has also been exploring another route towards China and Japan through Uzbekistan and Kyrgyzstan. This will be a 5,000 km long route which, according to some experts is economically less attractive. However, Turkmenistan seems to be more successful in exporting natural gas to Turkey via Iran after an agreement was reached in 1995 among the three countries. In 1997 US agreed to purchase about 28 billion cubic metres of Turkmenistan's gas via the Iranian pipeline. But the prospects of export of Turkmen gas to western Europe and the US may be affected as the US is critical about pipeline passing through Iran. In order to overcome such possible prob-

tems, as reported by Moscow's *Finansovaya Izvestiya* on April 28, 1998, Turkmen president S Niyazov met US president Bill Clinton in Washington on April 24, 1998 during which an agreement was signed for transporting Caspian gas with the US assistance.

All this is likely to reduce Russia's importance and hence its influence on other Caspian states. Therefore, realising this possibility, the former energy minister of Russia Valeri Garipov made persuasive arguments to convince western powers and oil firms that transportation by the northern route was twice or thrice cheaper than that of the western routes passing through Georgia, Turkey, Ukraine, etc. According to him Russia's Transneft ensures reliable operation of pipelines and high quality of transportation services and new technology to all clients including Azerbaijan, Kazakhstan, etc. Transneft has not only reconstructed pipelines passing through the Chechen republic but has also offered seven alternative equally economic routes bypassing Chechnya to ensure that ethnic conflict there does not affect Russia's interest. Russia's contention is that economic considerations should prevail over political considerations for the other Caspian states as also for the western countries (*Russia Business Watch*, Washington Fall 1997, p 32).

Georgiy Chanturiya, an official of the Georgian International Oil Company claims that the Azeri-Georgian (Baku-Supsa) western route will be the most economical for transporting Caspian oil to the Black Sea coast and hence advantageous to foreign oil importing partners.

There are differences in the perception and assessment about the economic viability of pipeline routes among the western oil companies. For instance, the British Petroleum, an important partner in the creation of the international consortium to develop Azeri off shore oil fields, is lukewarm about the proposed Baku-Ceyhan oil pipeline (*RFE-RL Newsline*, May 15, 1998) stressing that more than one pipeline would be used to export Azeri oil. In fact, the government of Ukraine and British Petroleum are making efforts to develop the Odessa-Brody pipeline. The Ukrainian government has proposed the setting up of an international consortium to complete the construction of Odessa-Brody pipeline and of the oil terminal at Odessa with an annual capacity of 12 million tonnes. In contrast James Tilley of the Caspia International Petroleum company, has implicitly supported the Russian viewpoint, that western firms should utilise the existing northern route which is the main export pipeline. While western firms have made huge investments in Caspia on the basis of vast potential reserves of oil, some analysts caution that expectations of huge potential reserves may not materialise. Apart from this, in the opinion of western experts on Caspia, there are problems of security for the pipelines which pass through several autonomous regions inhabited by ethnic groups which are politically sensitive – Chechnya in Russia, Meshketiya, Javakati in Georgia, etc. In the aftermath of the Soviet break-up, ethnic problems have often led to conflicts and violence.

Even as significant developments have been taking place in the energy rich Caspian region since the last six or seven years in which many countries are actively participating, India appears to be rather slow in taking interest, although developments in the Caspian region should be of concern to India as a major importer of oil. Recently, India has shown an active interest in the region particularly, Azerbaijan and Kazakhstan. For instance, following a meeting of the Indian delegation with Azerbaijan's president Heyder Aliev, India is set to participate in oil projects and have some stake in Ateshgyakh or Kyrdashi oil field (Summary of World Broadcast (BBC) Former USSR, February 6, 1998). In this regard the visits of the Indian foreign secretary K Raghunath to Baku and subsequently of the petroleum and natural gas minister V K Ramamurthy during the fifth international Caspian oil and gas exhibition in Baku in May 1998 in which ONGC participated are significant. It is important to note that India has maintained cordial political relations with all the Caspian countries. Moreover, India has developed technical expertise in the exploration and exploitation of oil and gas over the last few decades with the collaborations of the former Soviet Union. Therefore, it should be possible for India to utilise these advantages to successfully participate in international tenders being invited by the Caspian countries from time to time.

After the Soviet break-up, the Caspian region has become the venue of intense competition among the big powers reminiscent of the early 20 century Russo-British clash over Caucasia and central Asia. The stake is not geopolitical domination over the region, but indirect control over the rich energy resources of Caspia. Out of five littoral states of Caspia, only two states, Azerbaijan and Kazakhstan account for most of the proven oil reserves. In fact, the proven oil reserves in the Russian sector of Caspia are negligible although Russia is rich in its own right with reserves in other parts including Siberia far exceeding the reserves of Caspia. What has added to the complexity of the situation is that the existing pipelines pass through Russia. Making it both a partner and a competitor in the energy field in the Caspian region. Notwithstanding the present decline in oil prices in the world market, billions of dollars are being invested by leading oil companies not only for exploration and exploitation of oil in Caspia but also for finalising alternative routes to pipe out oil in the direction of the west and the east to reduce dependence on the existing northern route which passes through Russia.

For the newly independent Caspian states of Azerbaijan, Kazakhstan and Turkmenistan, the export of oil and gas to world markets is a major source of income, necessary for their economic survival. Perceiving that Russia may want to become a competitor rather than a partner for the development of energy resources, they have attempted to assert their sovereign rights, and have taken a position on the status of Caspia which is different from that of Russia. They have actively sought support and collaboration of several developed countries to invest in Caspia's energy sector which will also indirectly help them to strengthen their political stability and acquire international recognition. These Caspian states have maintained cordial relations with Moscow although the degree of interaction with Russia varies for each Caspian state.

In the post-Soviet scenario, Russia cannot expect to retain its original influence much less control over the Caspian region. Setbacks in Russia's policy on Caspia with regard to both its status and pipeline issues, may be partly attributed to the delay in accepting these realities. Russia needs to depend more on economic rather than political leverage to retain its influence in the Caspian region. But its ability to exercise economic leverage is limited by its own domestic economic compulsions and constraints and by the aggressive role of the major international oil companies politically supported by developed countries to control energy resources of Caspia. Being an oil importing country, India needs to play a more active role in the Caspian region.

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India and Ongoing Review of WTO Dispute Settlement System

B S Chimni *

India should question the heads-I-win-tails-you-lose approach of the present rule-oriented WTO dispute settlement system whereby it is expected to strictly fulfil its obligations when more powerful states can avoid doing so through the incorporation of novel interpretive schemes or by using the national security exception clause.

I
Introduction

THERE is under way in the World Trade Organisation (WTO) a review of the Understanding on Rules and Procedures Governing the Settlement of Disputes (the 'DSU') adopted as a part of the Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations (hereafter the 'Final Act'). The review process is to be completed in the next couple of months. It is of utmost importance that India does not merely raise technical and procedural issues in the review process but attempts to draw attention to the fundamental problems which characterise the WTO dispute settlement system (DSS) and suggest solutions which safeguard the interests of the Indian people. In this note I will, eschewing details, argue that India should, among other things, contend that the rule-oriented system which has been established by the DSU is of uncertain value to it and the rest of the third world and that it should be substituted by a system which gives greater weightage to national interpretations and determinations of rules which constitute the WTO regime.

Let me elaborate. There is a consensus among western researchers that the WTO DSS represents a move from a power-oriented system (as embodied in GATT) to a rule-oriented system. For example, according to Trebilcock and Howse "the Uruguay Round Understanding on Dispute Resolution seeks to advance substantially the legal orders conception of the GATT".[1] The incorporation in the DSU of the negative consensus principle is in particular seen as an important step in this direction. Its inclusion in the DSU ensures that the reports of WTO panels or the Appellate Body (established for the first time and viewed as the other significant step in establishing a rule-oriented system) will more or less be automatically adopted by the WTO Dispute Settlement Body (DSB) which is composed of representatives of all the member states. According to Article 16(4) of DSU, "Within 60 days after the date of circulation of a panel report to the Members, the Report shall be adopted at a DSB meeting unless a party to a dispute formally notifies the DSB of its decision to appeal or the DSB decides by consensus *not to adopt the report*". The same rule applies in the case of the adoption of a report of the Appellate Body. The meaning of consensus is stated in a footnote to Article 2 para 4: "The DSB shall be deemed to have decided by consensus on a matter submitted for its consideration, if no Member, present at the meeting of the DSB when the decision is taken, formally objects to the proposed decision". Read together Articles 16(4) and 2(4) guarantee that a report of a Panel or an Appellate Body will inevitably be adopted as it is difficult to imagine a situation in which a state winning its case before a WTO Panel or Appellate Body will vote against the adoption of the relevant report.

To the extent that the move to a rule-oriented DSS represents an attempt to establish the rule of law in the world of international trade it is welcome. For in a battle of briefs the less powerful countries in the international trading system have a better chance of having their views accepted than in negotiations openly visited by power. I will however dissent and contend that the move towards a rule-oriented system in the WTO is of uncertain value for the underdeveloped world, in particular India. First, a positive evaluation of the WTO DSS is sustained through viewing it in separation from the substantive rules which constitute the trading regime. Whereas the characterisation of a DSS as progressive or otherwise should depend on an assessment of the content of the rules which are to be interpreted and enforced. In other words, while a rule oriented DSS has some intrinsic value it is mistaken to believe that it automatically translates into justice in the international trading system. In the case of the WTO perhaps the contrary is true. Since the substantive rules essentially codify the interests of the dominant actors in 'international trade', a rule-oriented system only contributes to the rigid enforcement of the embodied inequities.[2] It also explains the paradox that the developing countries are making greater use of the WTO DSS than they did of the GATT DSS: it is a desperate search for fairness in the international trading system. While I am convinced that the fact that India has little to gain from the substantive rules is sufficient reason for rethinking its approach to the WTO DSS, I will not pursue this line of argument further here.

Indeed, I will concede that despite the bias of the substantive regime the rule-oriented DSS has the potential of hurting the principal actors in the international trading system. The problem however is that in certain key areas the rule-oriented DSS has been so constructed as to leave open vast interpretive spaces through which powerful states can safeguard their critical interests. For instance, as I shall argue in detail in Part II of the paper, concerned about the possibility that a rule-oriented system may on occasions prove inimical to the interests of even the most powerful state, the United States has contrived to include in the key agreement on anti-dumping special interpretive rules which all but ensure that WTO DSS will accept the determinations made by its national agencies. Needless to add, the anti-dumping provisions of the Final Act are very often invoked by the developed world against competitive exports from the third world to give protection to their domestic industry.[3]

The heads I win and tails you lose approach this represents is supported by certain other rules and procedures of the GATT/WTO regime. Of these I would like to focus, in Part III of the paper, on the national security exception clause contained in Article XXI of GATT for it has troubling implications for India in the post-Pokhran II era. Article XXI appears to allow states to justify the non-fulfilment of any WTO obligation in the name of national security. While the national security exception clause contained in it can be invoked by all states its use by dominant states is likely to have grave implications for the trade and security of other states in the international system. Policy-makers in India therefore need to take a close look at it.

In sum, I will attempt to look at certain aspects of the WTO rules and the DSS to contend that powerful states appear to have the best of both worlds in what is described as a rule-oriented system. On the one hand, a rule-oriented DSS allows these states to ensure that the developing-countries world fulfils their obligations under the WTO regime. On the other hand, the system is appropriately non-rule oriented when it addresses those areas where a rule oriented DSS could harm the interests of these states, as in the case of anti-dumping. The national security exception clause likewise allows sufficient flexibility to the powerful states to pursue unconstrained non-trade objectives.

If this analysis is correct then I would like to suggest that India should pursue in the ongoing review process a strategy which seeks to make the present DSS less rule-oriented as a whole. As will become clear in the course of my exposition, by a less rule-oriented system I mean a system which pays greater deference to the determinations and decisions of national authorities with respect to all the agreements which constitute the Final Act. To put it differently, the DSS must be made less rule-oriented not by restoring the previous power-oriented system based on the positive consensus principle but through redefining the meaning of a rule-oriented system.

II
Deference to National Governments and the Anti-Dumping Code

Among the key issues which arose in the course of negotiating the WTO DSU was as to how far panels should show deference to determinations arrived at by national agencies and authorities. A view was expressed by the United States that in the past GATT panels "had over-reached their authority and been too intrusive in disagreeing with national government authorities".[4] While perhaps the principal area of concern was past panel decisions on anti-dumping rules, the objection was framed by the larger objective of making the WTO DSS more deferential towards national interpretations of international trade obligations. Insofar as the specific problem of anti-dumping was concerned the Final Act conceded ground to those who felt that the GATT panels had been too forward in their decisions. Thus, Article 17.6 of the Agreement on Anti-dumping contains a most unusual provision from the standpoint of international law (as opposed to national law). It reads as follows:

> In examining the matter referred to in paragraph 5:
>
> (i) in its assignment of the facts of the matter, the panel shall determine whether the authorities' establishment of the facts was proper and whether their evaluation of those facts was unbiased and objective. If the establishment of the facts was proper and the evaluation was unbiased and objective, *even though the panel might have reached a different conclusion the evaluation shall not be overturned*;
>
> (ii) the panel shall interpret the relevant Provisions of the Agreement in accordance with customary rules of interpretation of public international law. *Where the panel finds that a relevant provision of the Agreement admits of more than one permissible interpretation, the panel shall find the authorities' measure to be in conformity with the Agreement if it rests upon one of those permissible interpretations.* (Emphasis added.)

The model on which this Article 17.6 is based is that of administrative law jurisprudence of the US.[5] It imposes serious constraints on the power of a WTO panel to question national determinations. Clause (ii) in particular compels panels to accept alternative interpretations of a provision of the agreement as long as it falls within the category of 'permissible' interpretations. However, as has been pointed out that unlike in the instance of US jurisprudence the word used here is 'permissible' and not 'reasonable'. The reason for this replacement is significant. According to Croley and Jackson this substitution was a result of a 'compromise' in order to accommodate those

> ...who wanted to ensure the effectiveness of many rules of the WTO, particularly those in the intellectual property area. These interests also believed that the "reasonableness criteria" would constrain panels too much, and make it difficult to successfully challenge objectionable practices that were inconsistent with various WTO rules.[6]

In other words, it was not certain at this stage as to whether the provisions of Article 17.6 would be confined to the question of anti-dumping and would not have general applicability. That it was so confined was because it was felt that allowing divergent national interpretations of the different agreements which formed a part of the Final Act could lead to undermining the DSS itself and prove counter-productive. In the words of Petersmann:

> An assumption of the legitimacy of diverging national interpretations could transform the WTO into a 'tower of babel' and conflict with the declared objective of the WTO dispute settlement procedures "to clarify the existing provisions of those agreements in accordance with customary rules of interpretation of public international law" (Article 3:2 of the DSU). This could undermine the declared objective of "the maintenance of a proper balanc of rights and obligations of member through "the prompt settlement of situ tions in which a member considers th any benefits accruing to it directly or i directly under the covered agreemen are being impaired by measures take by another Member" (Article 3.3 of th DSU).[7]

In the same vein Croley and Jackson writ

> Standing alone, that deferential review necessary to protect authorities' nation sovereignty fails to acknowledge that son balance between authorities' interest protecting their sovereignty, on the o side, and the broader interest in realisi the gains of international co-ordinatio on the other, must be struck. The argume proves too much, in other words, as unwittingly challenges the very rationa of the GATT/WTO itself.[8]

In their view:

> ...perhaps all that is required is that pane (including appellate panels) perceive a show sensitivity toward the issues involv when an international body reviews t legal appropriateness of national gover ment authorities' actions.[9]

This seems a reasonable view but ove looks, first, the politics of interpretatio It is difficult to imagine texts which a as filled with ambiguity as the agreemen which form part of the Final Act. It is the not difficult to imagine that over a peri of time the jurisprudence with which the ambiguities will, under the pressure non-compliance of key players,[10] be fill will tend to favour the dominant state But second, and more significantly, co trary to the impression that Croley a Jackson give, their view does not seek strike a balance between national a multilateral interests with respect to a areas of WTO operation. A close readi of their argument reveals that they do n seek to universalise the nuanced approa to the actions of national authorities b to insist that this be the case where issu like anti-dumping are concerned. On t other hand, it is the burden of my argume that countries like India should insist th this be the case with respect to all ob gations. Thus, India's interpretation of i obligations under the TRIPs Text (f example, of its Article 8)[11] should also b upheld as long as it can satisfy the 'pe missible' interpretation criteria. There a possibility of advancing this line argument for the ministerial conferen which adopted the Final Act took a sign ficant decision which was made a part the text of the Final Act:

> *Decision on Review of Article 17.6 of t Agreement on Implementation of Article of the General Agreement on Tariffs a Trade 1994*

Ministers decide as follows:

> The standard of review in paragraph 6 of Article 17 of the Agreement on the Implementation of Article VI of GATT 1994 shall be reviewed after a period of three years with a view to considering the question of whether it is capable of general application.

Currently, a general review of the WTO DSS is underway and offers the opportunity to India to argue for the universalisation of the applicability of Article 17.6 in order to safeguard the interests of the Indian people. I now turn to an analysis of the national security exception clause in GATT.

III
Interpretation of GATT National Security Exception Clause: Complete Deference to States

The relevant parts of Article XXI of GATT read as follows:

> Nothing in this agreement shall be construed
>
> (a) ...
>
> (b) to prevent any party from taking any action which it considers necessary for the protection of essential security interests
>
> (i) relating to fissionable materials or the materials from which they are derived;
>
> (ii) relating to traffic in arms, ammunition and implements of war and to such traffic in other good and materials as is carried on directly or indirectly for the purpose of supplying a military establishment;
>
> (iii) taken in time of war or other emergency in international relations.

The interpretation of Article XXI raises the issue of whether the WTO DSS has the authority to review a national security claim by a member state to refuse to fulfil certain obligations. This is a critical issue for, in the words of one scholar, "there is little doubt that Article XXI of the GATT employs a very vague concept; it is thus a far-reaching national security exception with broad potential for abuse. Article XXI is a possible threat to the delicate system of WTO/GATT rules".[12]

The International Court of Justice (ICJ) had in the *Nicaragua* case (1986) had occasion to consider a national security exception clause which was contained in Article XXI of the 1956 Treaty of Friendship, Commerce and Navigation (FCN) arrived at between the Unites States and Nicaragua. Article XXI of the FCN treaty permitted measures "necessary to protect [...] essential security interests". It is not widely known that the ICJ in its decision directly compared the wording of the FCN treaty with Article XXI of GATT and observed:

> That the Court has jurisdiction to determine whether measures taken by one of the parties fall within such an exception, is also clear *a contrario* from the fact that the text of Art XXI of the Treaty does not employ the wording which was already to be found in Article XXI of the General Agreement on Tariffs and Trade. This provision of the GATT [...] stipulates that the Agreement is not to be construed to prevent any party from taking any action which it 'considers necessary for the protection of its essential security interests' [...]. The 1956 Treaty, on the contrary, speaks simply of 'necessary' measures, not of those considered by a party to be such.[13]

It is clear from the opinion of the ICJ that it distinguished between an objective formulation ('necessary') and a subjective formulation ('considers necessary') and concluded that the latter removed the matter from its jurisdiction.

GATT practice also reveals that states are unwilling to have a panel, or any other body, review their invocation of the national security exception clause. For example, in 1982, during the discussion of the trade restrictions affecting Argentina for non-economic reasons the US representative stated that "the General Agreement left to each contracting party the judgment as to what it considered to be necessary to protect its security interests. The CONTRACTING PARTIES has no power to question that judgement."[14] The representative of the EC stated that Article XXI "constituted a general exception, and required neither notification, justification, nor approval, a procedure confirmed by 35 years of implementation of the General Agreement".[15]

However, despite the *obiter dictum* of the ICJ, and the views expressed by the United States and EC in the past, the language of Article XXI appears to offer the possibility of arriving at a view which takes into account both the concerns of a state invoking Article XXI along with that of affected states through focusing attention on the sub-clauses of clause (b) which appear to limit the freedom of states. This understanding is supported, first, by the fact that the CONTRACTING PARTIES of GATT in 1981 adopted a 'Decision Concerning Article XXI' which noted that Article XXI could constitute an "element of disruption and uncertainty for international trade" and affirmed that all parties affected action under it "retain their full rights under the General Agreement".[16] While legally speaking this decision did not offer an authoritative interpretation of Article XXI, leaving the question open, it does offer a preliminary view on the subject. Second, in a recent dispute between the EC and the US over the 1996 Helms Burton Act the EC appeared to contend that the national security exception clause is justiciable. The Helms Burton Act provides, among other things, for basis of claims in US courts against anyone who traffics in property confiscated by the Cuban government from persons who are US citizens. The executives of corporations who traffic in such property are to be denied entry into the US. Upset over this the EC, after a series of infructuous consultations, requested the establishment of a panel in October 1996. It claimed that the Helms Burton Act violated several provisions of GATT. The matter was however settled through diplomatic negotiations and the US and EU concluded a MOU on April 11, 1997 in which they agreed to suspend the proceedings of the panel. But there is little doubt that the EU was willing to challenge the national security defence which the US would have in all likelihood advanced if the case had proceeded before a panel. In brief, the move of the EC to request the establishment of the panel supports the view that the national security exception clause is justiciable.

But even if this view is accepted it will only be in the rare instance that a WTO panel will find against the state asserting the national security defence:

> Assuming [...] that in principle the panel has competence to decide upon the questions emanating from Article XXI of the GATT, it has to be noted that the panel's powers are severely limited and that the state concerned has a wide margin of appreciation; since security to a large extent is a question of perception and not of hard fact, it is primarily –but not solely – the state that is competent to determine the existence of an emergency in international relations.[17]

Thus, Article XXI harbours great potential for abuse. This abuse can have grave consequences for the international trading system when invoked by powerful states. While it may not be frequently resorted to, its use in critical situations can cause serious injury. India has already become an illegitimate target of Article XXI; it is the only defence that the US has to its imposition of sanctions after Pokhran II insofar as they conflict with their GATT/WTO obligations. And given the wordings of Article XXI India will find it difficult to have a WTO panel hold against the most powerful state in the international system.

IV
Conclusion

I would therefore like to reiterate the conclusion that India should question the heads I win and tails you lose approach

of the present rule-oriented WTO DSS whereby it is expected to strictly fulfil its obligations when more powerful states can avoid doing so through the incorporation of novel interpretive schemes or using the national security exception clause. There are, I must emphasise, other provisions of the GATT/WTO regime which I have not touched upon (the provision governing the trade-environment interface, the agreement on subsidies, etc) which likewise offer the space to the principal trading states to harm the cause of the underdeveloped world.[18] But that is another story for another time. For the present I would like to plead with those in charge of policy-making in this country to frame a negotiating and litigating strategy which allows the Indian people to protect their vital interests.

India would appear to have two options: either to argue in favour of making the present DSS more rule-oriented or to attempt to universalise the standard of review contained in the agreement on anti-dumping. I would suggest the latter course of action for the following reasons. First, it is doubtful if the system can be made more rule-oriented in view of its negative implications for certain critical interests of the dominant states. Second, it is unlikely that a WTO panel will find against a state invoking the national security exception clause. Third, strengthening the rule-oriented DSS is not in India's interests as it gains little from the substantive trade rules which the DSS will interpret and enforce. Fourth, it will have even less to gain from the envisaged agreements on investment, social clause and the trade-environment interface. Fifth, even when the WTO DSS decides a case in favour of India it will not always be easy to effectively enforce the same against the developed countries in the face of asymmetrical power relations. Sixth, the threat of unilateral retaliations is not ruled out in practice despite the establishment of the rule-oriented system. Consequently, India should argue in favour of the general applicability of the rationale which informs Article 17.6 of the agreement on anti-Dumping. It will stand to gain from a DSS which pays greater deference to the national interpretations of all the obligations undertaken under the WTO regime. It should therefore attempt to persuade the rest of the WTO membership that an imbalance between international obligations and domestic independence will undermine the GATT/WTO regime and the principles upon which it is based.[19] This should not be difficult to do when it is kept in mind that Article 17.6 applies to an issue area of which the following is said: "For all practical purposes, there is nothing wrong with dumping, as it is a normal business practice. The problem is anti-dumping".[20] Surely, the applicability of Article 17.6 cannot be withheld from the rest of the WTO agreements.

Notes

[This is a slightly revised version of a paper read at a Seminar on "Certain Aspects of the Functioning of the WTO Dispute Settlement Mechanism and other Allied Matters" organised by the Asian African Legal Consultative Committee along with the Ministry of Commerce and the Ministry of External Affairs held in New Delhi on November 17-18, 1998.]

1 M J Trebilcock and R Howse, *The Regulation of International Trade* (Routledge, London, 1995) p 397. Likewise, according to Petersmann, legal advisor to WTO:

> The progressive transformation of traditionally 'power-oriented' trade... policies into 'rule-oriented' policies constitutes one of the most important achievements of international law and policy since second world war. [Ernst-Ulrich Petersmann, *The GATT/WTO Dispute Settlement System* (Kluwer Law International, The Hague, 1997) p 84.]

2 Is it not surprising that at a conjuncture in international relations when one state, or at best a small group of states, dominate the entire international system that a rule-oriented system has been established. One would have expected the converse to happen. That it has not happened can only be explained by the fact that a rule-oriented system serves the interests of powerful states

3 Available data indicates a substantial increase of anti-dumping investigations since the mid-1980s Compared to the 1985-86 period the total number of investigations increased by roughly one-third from 178 to 237 in the 1991-92 period. Of the 1148 investigations initiated in the period the US (300), Australia (282) and the EC (242) led the way. A large number of these investigations were directed against third world countries. Norbert Funke, 'Trends in Protectionism: Anti-Dumping and Trade Related Investment Measures', *Inter Economics*, vol 29 (Sept/Oct 1994, pp 219-25 at p 220). The tendency to initiate anti-dumping investigations has, unsurprisingly, not subsided in the post-WTO period. A recent issue of *The Economist* (November 7, 1998) notes "the surge of anti-dumping cases" According to it, "the American government is encouraging anti-dumping suits, promising to vet them faster". What is perhaps new is that the developing countries have sought to retaliate in kind: " ..perhaps the most worrying new trend is that developing countries are retaliating with anti-dumping actions of their own. Mexico, Argentina and Brazil have launched a bevy of cases, many against the US. So has South Africa. And Asian countries are at last hitting back Anti-dumping actions are multiplying in China and South Korea India is setting up a new body to cope with an upsurge in cases", id But most developing countries are not in a position to seriously hurt their northern trading partners. Little wonder, as *The Economist* goes on to note of the US: "It is so keen on anti-dumping that it is loth to complain when other countries retaliate in kind"

4 Steven P Croley and John H Jackson, 'WTO Dispute Procedures Standard of Review, and Deference to National Governments', *American Journal of International Law*, vol 90 (1996) pp 193-213 at p 195

5 For a detailed description see Croley and Jackson, op cit.

6 Ibid, p 199.

7 Petersmann, op cit, p 227.

8 Croley and Jackson, op cit, p 212

9 Ibid.

10 " ..an important question is whether the new dispute settlement procedures will work effectively. There will indeed be temptations of some member nations, probably the largest, to ignore or undermine the results of dispute settlement procedures when those procedures do not entirely suit their interests The dispute settlement procedure will lose credibility, and thus will fail in its primary purpose of establishing and maintaining a creditable 'rule-oriented' system " John Jackson, 'The World Trade Organisation: Watershed Innovation or Cautious Small Step Forward', *The World Economy* (1995) pp 11-27 at p 25

11 Article 8 of the TRIPS Text reads as follows:

> 1 Members may, in formulating or amending their laws and regulations, adopt measures necessary to protect public health and nutrition, and to promote the public interest in sectors of vital importance to their socio-economic and technological development, provided that such measures are consistent with the provisions of this Agreement.
>
> 2 Appropriate measures, provided that they are consistent with the provisions of this Agreement, may be needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology.

12 Markus A Reiterer, 'Article XXI GATT – Does the National Security Exception Permit 'Anything Under the Sun'?', *Austrian Review of International and European Law*, vol 2, (1997), pp 191-212 at p 210

13 Nicaragua case, *ICJ Reports, 1986*, para 222.

14 GATT, *Analytical Index: Notes on the drafting, interpretation and application of the Articles of the General Agreement* (1995).

15 Ibid.

16 GATT *Basic Instruments and Documents*, vol 29, (1981-82), p 23

17 Ibid, p 211

18 For example, the recent decision of the WTO Appellate Body on the *United States – Import Prohibition of Certain Shrimp and Shrimp Products* (October 1998) while finally deciding the case in favour of India and other complainants has, in the context of the trade-environment interface, advanced interpretations of GATT 1994 which may have negative trade implications in the future for the developing countries.

19 Prudence A Gordon, 'The World Trade Organisation - Throwing the Baby out with the Bath Water? How Institutionalisation and Increased Regulation Might Undermine Trade Liberalisation', *Australian Journal of International Affairs*, vol 50, no 3, 1996, pp 245-77.

20 Bernard M Hockman and Michael M Kostecki, *The Political Economy of the World Trading System* (Oxford University Press, Oxford, 1995) p 174

How and Why Nehru and Abdullah Fell Out

A G Noorani

Selected Works of Jawaharlal Nehru, second series, volume 22 (April 1953 – June 30, 1953) edited by **Ravinder Kumar** and H Y Sharada Prasad; Jawaharlal Nehru Memorial Fund, distributed by Oxford University Press, Delhi, 1998; Rs 500.

Regional Security, Ethnicity and Governance edited by Justus Richter and Christian Wagner; Manohar, Delhi, 1998; Rs 380.

WHAT exactly was Jawaharlal Nehru's policy on Kashmir before he publicly ruled out a plebiscite in the state in early 1954? On the eve of independence, the AICC's stand, as declared in its resolution of June 15, 1947, was that "the people of the states must have a dominating voice in any decisions regarding them". In contrast, Mohammed Ali Jinnah asserted, on July 30, that the ruler would decide which of the two states to accede to "or to remain independent". When a dispute arose with Pakistan over Kashmir's accession to India on October 26, 1947 following a tribal raid from Pakistan, Nehru said repeatedly that the people would, nonetheless, decide the issue in a plebiscite. The two countries arrived at an "international agreement", to use V K Krishna Menon's words, on the modalities of a plebiscite in the form of two resoultions of the UN Commission for India and Pakistan (UNCIP) dated August 13, 1948 and January 5, 1949. On this basis a cease-fire was declared on January 1, 1949. The resoultions received the endorsement of the UN Security Council. They were never carried out.

From 1947 till 1953 Nehru was profuse in proclaiming his commitment to hold a plebiscite (A G Noorani, *The Kashmir Question*, Bombay, 1964, pp 33-68). On record also are the speeches of Kashmir's prime minister Sheikh Muhammed Abdullah from 1947 till 1952 which reflected a strong disapproval of plebiscite. The roles were reversed in 1953. The Sheikh began to look favourably on the proposal to Nehru's dismay; for by now Nehru had set his face against it contrary to his public stance. On August 8, 1953 Sheikh Abdullah was sacked from the office of prime minister of Jammu and Kashmir and put behind the bars along with some colleagues, chief among them being Mirza Muhammad Afzal Beg (vide his memoirs recently published in Urdu, *Khaak-e-Anjumand* edited by Mirza Mumtaz Afzal Beg, Rajbagh, Srinagar).

Documents which emerged in driblets revealed how the transformation came about in both Nehru and Abdullah The volume under review records Nehru's despair on the eve of the breach in August 1953.

The Nehru-Abdullah rift marked a turning point in the history of Kashmir. It had long been in the making. Yet the background is little known and less understood. Two factors caused the breach. Nehru's pressure on Abdullah to finalise the accession beyond doubt and the Jan Sangh-supported agitation in Jammu with which not a few among Nehru's colleagues sympathised. Earlier volumes of *Selected Works of Jawaharlal Nehru* record the drift towards the breach. Kashmir's Constituent Assembly first met on October 31, 1951. In a note to Girja Shankar Bajpai, secretary-general of the ministry of external affairs, dated September 18, 1951 Nehru opined: "the Constituent Assembly cannot decide finally about the accession of the state, though *it may express its opinion upon that or any other subject*" (vol 16, p 296; italics mine throughout).

At a press conference in New Delhi on June 21, 1952, Nehru discosed: "When the Constituent Assembly met in Kashmir for the first time I might inform you that it was its intention to pass a resolution forthwith confirming the state's accession to India. We asked it not to do it *so as not to be embarrassed before the United Nations.*"

What he did not disclose was that his opposition in 1951 was purely tactical and momentary and that he had since altered his stand. In a speech at a public meeting in Calcutta on January 1, 1952, Nehru said: "If, then, the people of Kashmir tell us to get out, we will do so...If tomorrow Sheikh Abdullah wanted Kashmir to join Pakistan, neither I nor all the forces of India would be able to stop it *because if the leader decides, it will happen.*" In August 1953 Abdullah was imprisoned for far less; he never favoured accession to Pakistan. Nehru asked "why would they [the people of Kashmir] live in a country where the Jan Sangh and the Rashtriya Swayamsevak Sangh are constantly beleaguering them? They will go elsewhere and they will not stay with us" (vol 17, pp 76, 77 and 78).

Pressure from New Delhi was constantly preying on Abdullah's mind. On April 10, 1952 came his famous speech at Ranbirsinghpura. Kashmir's accession to India would have to be of a restricted nature as the communal spirit still existed in India. While the government of India was trying to curb communalism, *unlike that of Pakistan*, it was none too successful. He did not equate the two. "So far as Kashmir was concerned, it wanted to preach the mission of secular democracy, both to India and Pakistan." Relying on a PTI report, Nehru commented on it publicly drawing a mild reproach from Abdullah on April 23. Nehru replied on April 25, in a long, rambling letter, with a reproach of his own in another letter of the same day in respect of Abdullah's speech that very day. Nehru was clearly over-reacting and eager to score points.

It was against such a background that Nehru and Abdullah concluded the famous Delhi Agreement on Kashmir's closer integration with the Union on July 24, 1952. The negotiations were conducted in a tense atmosphere with reservations on both sides (vol 19, pp 211-53).

Soon thereafter, Nehru bared his thoughts in a confidential Note to Abdullah dated August 25, 1952 while camping at Sonmarg in Kashmir. *He revealed his decision to reject a plebiscite as far back as 1948, his public statements notwithstanding.* Nehru formulated with cold, brilliant clarity his policy on Kashmir.

If NSC-68 drawn up by the US National Security Council was an accurate statement of its policy of containment of the Soviet Union during the cold war, Nehru's Note has the same historic significance as a statement of his policy on Kashmir. It was based on sheer *realpolitik*: treated the people of Kashmir dismissively ("... are not what are called a virile people. They are soft and addicted to easy living"); and ensured that the Indo-Pak cold war that had been launched in 1947 would con-

tinue, as indeed, it has for over half a century (vol 19, pp 322-30)

Well before the Delhi Agreement was signed, Nehru had met M A Beg, Maulana Mohammed Saeed Masoodi and D P Dhar in New Delhi on June 19, 1952 In a note he had then drawn up for the benefit of senior colleagues like Maulana Azad Nehru recorded "The point I stressed was that *even before they finalised their Constitution the relationship of Kashmir to India must be fully clarified* Once this was done the other matters would not offer much difficulty " He wrote to president Rajendra Prasad the same day that "in my talks with the Kashmir Ministers, I told them that the first question *to decide* and clarify was the position of Jammu and Kashmir state *vis-a vis* India" (vol 18, pp 403 and 405) Nehru obviously sought to finalise the accession and nullify the condition on plebiscite

Beg could not have failed to report this to Abdullah who thus, knew what the Delhi Agreement could signify *to Nehru* Now his Note of August 25, 1952 dispelled all doubt in Abdullah's mind

The Note presents a problem to a student of history on understanding Nehru s psyche For while in private he was for foreclosing all doubt and thus ending the dispute publicly he continued to go about as he had since 1947 speaking in the most extravagant terms of the people s will Vols 18 and 19 contain texts of his speeches in this tenor His speech in the Lok Sabha on June 26 1952 for instance ' it just does not matter what your Constitution says if the people of Kashmir do not want it it will not go there' If the plebiscite went against India he would accept the verdict and we would change our Constitution about it' (vol 18 p 418)

Nehru s Note of August 25 1952 made a startling revelation about his change of mind as far back as *in late 1948* The timing is very important Towards the end of 1948 it seemed to me that there were only two possibilities open to us (1) continuation of the war in a limited way, (2) some kind of a settlement on the basis of the then existing military situation I have not mentioned the plebiscite, because *it became clear to me then* that we would never get the conditions which were necessary for a plebiscite Neither side would give in on this vital issue, and so I ruled out the plebiscite for all practical purposes "

Why, then did he accept the UNCIP's proposals for a plebiscite on December 23, 1948? The Note explains his letter to the Sheikh soon thereafter on January 12, 1949 "You know well that this business of plebiscite is still far away *and there is a possibility of the plebiscite not taking place at all* (I would suggest, however, that *this should not be said in public*, as our bona fides will then be challenged)"

Nehru mentioned the period repeatedly Events had "led me to certain definite conclusions towards the end of December 1948 These conclusions were that the only possible way of putting an end to this conflict was by accepting, more or less, the status quo then existing " Unilaterally of course Thus while formally he had accepted the plebiscite proposals on December 23, 1948, in his eyes *their virtue lay in paving the way to a cease-fire* which would preserve "the status quo then existing"

Nehru defined the policy he proposed to pursue on Kashmir insofar as it involved Pakistan, coolly and with remarkable clarity of purpose

> We are superior to Pakistan in military and industrial power But that superiority is not so great as to produce results quickly either in war or by fear of war Therefore our national interest demands that we should adopt a peaceful policy towards Pakistan and at the same time, add to our strength Strength ultimately comes not from the defence forces but the industrial and economic background behind them As we grow in strength, and we are likely to do so Pakistan will feel less and less inclined to threaten or harass us, and a time will come when, through sheer force of circumstances it will be in a mood to accept a settlement which we consider fair whether in Kashmir or elsewhere The only danger is that the government of Pakistan, or some military clique there might in sheer desparation launch on an adventure

This arrogant misjudgment is responsible for strained relations with Pakistan to this day Even at Shimla in June 1972 Pakistan refused to accept partition based on the status quo Incidentally not a few of the ones who talk of rapprochement with Pakistan would yet refuse any serious concession on Kashmir

The other was his wilful neglect of the crucial factor – the people of Kashmir Nehru assumed (a) that the Sheikh alone represented them, and (b) that neither he nor his people would turn against Nehru's government When they did, Nehru adopted the same policy of reliance on force, imprisonment and rigged polls

Nehru reckoned with the democratic factor only to dismiss it

> Purely from the point of view of India's national interest we cannot agree, unless circumstances force us, to see this part of Kashmir state go to Pakistan There are no circumstances visible that can force us to do this Pakistan cannot The United Nations cannot override our wishes in this matter
>
> There is another aspect which we have stressed and which is important This is the wishes of the people of Kashmir If the people of Kashmir clearly and definitely wish to part company from India there the matter ends however we may dislike it or however disadvantageous it may be to India But, as I have stated above *I see no chance whatever of any proper plebiscite determining this question*
>
> So ruling out the plebiscite we have to accept *the present leadership of Kashmir* and the Constituent Assembly there as representing the will of the people of Kashmir If the Constituent Assembly told India to get out of Kashmir we would get out because under no circumstances can we remain here against the expressed will of the people As far as I know *the Constituent Assembly will not do such a thing and therefore the question* does not arise for me

He warned Abdullah

> *Doubts in the minds of leaders* percolate to their followers and to the people generally What is required is a firm and clear outlook *and no debate about basic issues* Personally I have that clear outlook *and have had it for these years*

Volume 19 also contains a transcript of his press conference on October 4 1952 at which he referred to the UNCIP's Resolutions We accept them still and we are perfectly prepared to proceed on these lines' This of course, was untrue

It is hard to reconcile Nehru's public utterances and, indeed his negotiations on plebiscite with UN mediators from 1949, to go no further till 1953 with his disapproval of debate or argument' on accession Were they for the record, for foreign consumption? Or was he simply confused? Also how is one to reconcile the Note of August 25 1952 with his agreement of August 21 1953 with Mohammed Ali Bogra, PM of Pakistan on a regionwise plebiscite in the state?

In truth Nehru was torn between *realpolitik* and commitment to democracy He opted for the former but was too intelligent not to perceive the vital omission ' What has sometimes worried me is what happens in Kashmir because I have found doubt and hesitation there and not clarity or vision or firmness of outlook'

He had Abdullah in mind not the people of the state Their mood was ever more distrustful of New Delhi This was a perceptive observation For by 1952 Sheikh Abdullah was a deeply worried man

On May 14, 1948 from Srinagar Indira Gandhi wrote to Nehru: "They say that only Sheikh Saheb is confident of winning the plebiscite...Personally, I feel that all this political talk will count for nothing if the economic situation can be dealt with. Because after all the people are concerned with only [one] thing – they want to settle their goods and to have food and salt." That still remains New Delhi's attitude towards them. Nehru's was little better. (Sonia Gandhi, *Two Alone, Two Together: Letters Exchanged between Indira Gandhi and Jawaharlal Nehru, 1940-1964*, Hodder and Stoughton, London, 1992, distributors B I Publications, p 551.)

As mentioned earlier, on January 12, 1949 a week after the UNCIP's plebiscite resolution of January 5, Nehru wrote reassuringly to Sheikh Abdullah: "You know well that this business of plebiscite is still far away and there is a possibility of the plebiscite not taking place at all. (I would suggest however that this should not be said in public, as our bona fides will then be challenged)" (S Gopal, ed, *Selected Works of Jawaharlal Nehru*, Nehru Memorial Fund, OUP, Second Series, Vol 9, p 198). On July 14, 1953 President Rajendra Prasad wrote to Nehru that according to the Vice-President, S Radhakrishnan, who had been to Kashmir the previous year, "*even Sheikh Abdullah thought that we would lose in a plebiscite as Sheikh Abdullah himself had told him that*" (Valmiki Choudhary, *Dr Rajendra Prasad: Correspondence and Select Documents*, Allied, Vol 16, p 90). Such a result could not have failed to affect Nehru's authority, if not, indeed, his tenure as PM.

Abdullah was able to end dynastic rule on Novemebr 11, 1992 and replaced it with an elected constitutional head of state 'Sadar-i-Riyasat', the maharaja's son, Karan Singh. By the end of 1952 the Jammu agitation was in full swing. Nehru was torn between pressures from the Jan Sangh leader, Syama Prasad Mookerjee, *and some of his own colleagues* and Abdullah's narrowing room for manoeuvre in view of the Jammu agitation, the rise of Jan Sangh and not least the growing alienation in the valley itself which affected Abdullah's own standing. Nehru gently reminded Abdullah, on January 5, 1953, of the need to implement the Delhi Agreement by appropriate decisions of Kashmir's Constituent Assembly so as to give it legal form (Vol 21, p 175). This was repeated on January 30. "Dhar told me that you were considering taking steps in regard to the implementation of the agreement..." (ibid, p 189). And, once again, on February 10: "That would partly disable any big agitation" (ibid, p 196).

Nehru would counsel Mookerjee to be patient (February 15, ibid, p 206) but patient he himself would not be. He wrote to Azad, in exasperation, on March 1, 1953: "I fear that Sheikh Saheb's mind is so utterly confused that he does not know what to do... My fear is that Sheikh Saheb, in his present state of mind, is likely to do something or take some step, which might make things worse...He talks about a complicated procedure for conforming to (*sic*) Delhi Agreement" (ibid, p 210). He meant its implementation, doubtless. Nehru had so taken Abdullah for granted that he missed the point that the Delhi Agreement was yet in force in Abdullah's perception.

Unknown to both, time was running out on it. Even for a person impatient of legalities and procedures, Nehru should not have looked askance at the reasonable, and by no means 'complicated', procedure the Sheikh had outlined in his letter of February 27 as summarised in a footnote – a Drafting Sub-Committee to give 'final shape' to the agreement for submission to the basic principles committee which was due to meet on March 5. Once the latter finalised the draft, he would "take immediate steps to send a copy" to Nehru. Part at least of Nehru's impatience stemmed from his passionate concern to finalise the accession, tell off the UN and Pakistan and get on with the task of governance interspersed with advice on moral behaviour to the rest of the world. Part at least of Abdullah's procedure stemmed from his desire to mark time and watch how events were shaping in New Delhi and Srinagar.

Volume 22 records that far from the breach narrowing, it became wider by the day; not least because of Nehru's growing impatience: "I do not myself understand why this particular limited matter of Kashmir's association with India should not *be speedily* decided...this matter at least should be tackled with speed *and settled*. I do not mind how long the rest of your Constitution takes." The tone was becoming sharper (pp 213-14). Abdullah had placed the Delhi Agreement before the Constituent Assembly on August 11, 1952. Nehru had done likewise in parliament on July 24.

An observation Nehru made in his letter to the Sheikh is of particular interest: "*My own view about the Constitution has all along been that it is always better to have a brief and flexible Constitution. We have made a mistake, I think, in having too long and complicated a Constitution of India and we are regretting it... it comes in the way all the time*" (p 214).

On May 18, 1953 members of the working committee of the National Conference took a fateful step. They were oppressed by the sense of uncertainty which had singled out their state in the entire subcontinent. Sheikh Abdullah took his colleagues into confidence and placed the matter before the working committee which met under his presidentship. The committee after prolonged discussions came to the conclusion that it was impossible to have internal stability so long as the state's future was uncertain. It accordingly appointed a committee consisting of the following eight members to explore avenues of a settlement: Sheikh Abdullah, G M Sadiq, Maulana Masoodi, Sardar Budh Singh, Mirza Afzal Beg, Pandit Girdharilal Dogra, Bakshi Gulam Mohammed and Pandit Shamlal Saraf.

Nehru, who was in Kashmir from May 23 to 25, was informed about the deliberations. Here is an extract from the minutes of the committee's final session held on June 9, 1953:

> As a result of the discussions held in the course of various meetings, the following proposals only emerge as possible alternatives for an honourable and peaceful solution of Kashmir dispute between India and Pakistan: (a) Overall plebiscite with conditions as detailed in the minutes of the meeting dated 4th June, 1953. [This apparently was a reference to Maulana Masoodi's suggestion that the choice of independence be offered in the plebiscite.] (b) Independence of the whole state. (c) Independence of the whole state with joint control of foreign affairs. (d) Dixon Plan with independence for the plebiscite area [regionwise disposition of the state].

Bakshi Saheb was emphatically of the opinion that the proposal (d) above should be put up as first and the only practicable, advantageous and honourable solution of the dispute. Maulana Saeed, however, opined that the order of preference as given above should be adhered to.

What G M Sadiq then said is worth recalling:

> If an agency consisting of India, Pakistan, Afghanistan, *Soviet Russia and China* could be created to supervise and conduct the plebiscite, I would suggest that *we should immediately ask for an overall plebiscite*. Failing this, we may ask for a supervision commission representing *all the Members of the Security Council* for ensuring free and fair plebiscite in the state.

Sadiq was close to the CPI.

In June 1953 Maulana Azad visited Kashmir and was apprised of these

developments. Early in July 1953, Nehru was informed about the decision (vide *Sheikh-Sadiq Correspondence, August-October 1956*, published by Mridula Sarabhai, New Delhi). Sheikh Abdullah quoted the minutes in his letter of September 26, 1956. Sadiq did not counter them. The editorial footnote is inaccurate: "Abdullah was said *(sic)* to have shown his preference for 'overall plebiscite or independence' while Bakshi Ghulam Mohammed and G M Sadiq differed substantially" (p 191).

Nehru found the proceedings disturbing as his letters to Azad and Girja Shankar Bajpai, both dated June 11, 1953, make clear. Azad was warned: "I am afraid Sheikh Abdullah will give us a good deal of trouble. He is acting very irresponsibly. I hope your visit will check him" (p 191). It, in fact, exacerbated the problem. Abdullah was reportedly discourteous to Azad at the Idgah.

It is, however, highly significant that Nehru was not disturbed by the stands taken by Bakshi and Sadiq, both of whom endorsed plebiscite as late as in June 1953 'emphatically' and 'immediately'. The minutes were sent to Nehru Clearly the two were dissimulating in order to deceive Abdullah They were in touch with Nehru. The circumstances suggest that he was not unaware of their conduct if not, indeed, privy to it

Meanwhile, in April 1953 the governor-general of Pakistan had dismissed Khwaja Nazimuddin from his office as prime minister and appointed in his place Mohammed Ali Bogra, till then ambassador to the US. Nehru made two comments about him. First, that he "is certainly keen on an agreement on various issues". They met in Karachi from July 25 to 27, 1953, having met earlier in June in London. The other comment Nehru made was that after the coup "Pakistan is now very much under the influence of the United States". Plans for US arms aid to Pakistan could not and need not have come as a big surprise to him

Two letters in this volume reflect Nehru's style of approach and his thought processes. One is a letter to Abdullah on June 28, 1953 One wishes he had gone to Srinagar as he said he might, since Abdullah would not come to Delhi. Nehru reminded him of his Note of August 25, 1952:

> This Note was discussed by us in Srinagar later and *I gathered from you and your colleagues that you agreed with that analysis and conclusion. Recent developments have, however, led me to think that you have either changed your mind completely or are not clear about your thinking.* This necessitates our understanding, as clearly as possible, what we respectively think. If one cannot agree, one should at least know precisely what the difference is. *That difference appeared to me considerable when we talked at Srinagar last.* But it seems to me that I could not get a grip of what you had in your mind, except negatively. *You told me that there were only two courses open for Kashmir, either full integration or full autonomy*, whatever that autonomy might mean. I did not agree with you in this, nor do I agree with you even now, because there are many other middle courses...

Surely, 'full autonomy' within the union was the very basis of Kashmir's accession to India in 1947 and 1949 in the discussions on Article 370 in the Constituent Assembly. Nehru added: "My government has stood, as you have so consistently stood, for a secular democracy. *I do not know what your feelings are on this subject now.* But I fear the tendency in Kashmir is away from it. Unfortunately that will have its reactions in India as such tendencies in India have their reactions in Kashmir." Nehru was wantonly giving a communal colour to a demand for autonomy. It was a wounding letter to one whose secular credentials were as impeccable as his own. Excerpts from Abdullah's reply are provided in the footnotes:

> Muslims may rightly feel that in spite of you and many others, the ideals of secular democracy are not much in evidence insofar as treatment to Kashmiri Muslims is concerned I derived my strength from what I supposed was an assurance that the state's accession with India would result in a fair deal to all sections of the people. But unfortunately that goal has not been achieved.

On the charge of lapses from secularism Abdullah retorted:

> May I say, this is an unkind cut Time alone will prove my faith in the principle for which I have consistently fought all these years My idea about secular democracy is not cramped or narrow-minded. I believe in justice for all sections of the people and my attitude is conditioned by realities and not by wishful thinking.

The Sheikh also wrote:

> You have spoken about guarantee. We certainly believed that the terms of the Indian Constitution provided adequate guarantee.. But I would point out to you the discrepancies that we came to notice from time to time in the attitude of the government of India in regard to this position. When Article 370 was devised, we felt assured by Sardar Patel that the Instrument of Accession would be the final basis of the Indo-Kashmir relationship. Subsequently, when the Delhi Agreement came up before the Council of States on August 5, 1952, Shri Gopalaswamy Ayyangar stated that Article 370 was *not* a permanent feature of the Indian Constitution and '*when the time was ripe' the provision could be wiped off the Constitution.* This clearly shows that even though assurances were given to us...such assurances came with a good deal of mental reservation.

Events were to prove that Abdullah's fears were fully justified.

Significantly, Nehru observed: "What I have felt lately has been that your government is very far from harmonious and in fact pulls in a number of different directions, that your organisation is also disintegrating in the same way". Abdullah replied: "I have not been able to understand your reference to disruptive tendencies both in the administration and in the organisation. All I can say is that it is baseless and probably the result of incorrect information given to you. I may, however, assure you that so far as the basic principles are concerned, there is no difference *of opinion among us in Kashmir*." The minutes supported him. Nehru sent a copy of his letter to Bakshi, but fairly informed Abdullah that he was doing so. In truth, it was New Delhi that was destabilising the state government by encouraging dissidence in the party. Abdullah was not aware of these intrigues evidently, least of all of Bakshi's liaison with New Delhi.

Nehru's letter to the chief minister of West Bengal, B C Roy – whose none too illustrious a record on secularism never earned him even the mildest reproach from Nehru – was written on June 29, the day after his letter to the Sheikh:

> It is difficult to speak openly about the injurious results of this movement. It has made the Kashmir problem far more difficult than it ever was. Before this movement was started, I had little doubt in my mind that the final decision about Kashmir would be in our favour, however long it might take. But this movement has upset all my calculations and weakened our position in Kashmir terribly I am for the moment talking about the Kashmir Valley only. As you know, the people in the valley are over 90 per cent Muslim. The reaction of the Jammu Praja Parishad movement on them has been very great. They have become frightened of the communal elements in Jammu and in India and their previous wish to be attached to India has weakened Indeed, at the moment, all the hostile forces against us

are dominant in Kashmir. The Pakistanis in Kashmir have taken full advantage of this and have even come out in the open for the first time. If Hindu communalists could organise a movement in Jammu, why should not Muslim communalists function in Kashmir? *The position now is that if there was a plebiscite, a great majority of Muslims in Kashmir would go against us.* In fact there has been some petty violence also.

Nehru added:

> The whole difficulty has been about the Valley of Kashmir and *we are on the point of losing it* because of the Praja Parishad movement. *Psychologically we have lost it and it would be difficult to get back to the older position.* You will appreciate how it has distressed me to see the hard work of several years washed away by this movement. *In the ultimate analysis, we gain Kashmir if we gain the goodwill of the people there.* We cannot keep it at the point of the bayonet if it is clear that the people do not want us. For the first time public cries are raised in Kashmir that the Indian army should get out.

Strangely enough when writing to B C Roy, Nehru was all patience and understanding of Abdullah's problems in contrast to his impatient letters to Abdullah himself. He wrote to Roy:

> It is true that if the Kashmir government had implemented the rest of the provisions of our agreement with them, this would have helped considerably. *But they were not given much of a chance. They started implementing it with the change in the Headship of the state. They would have followed with other provisions. But the first change itself was immediately followed by this agitation in Jammu and later outside. A new situation was thus created with which we have been struggling all this time and it became progressively more difficult to take any step in Kashmir of the kind we desired.* It is easy to criticise Shaikh Abdullah and I think that he has acted unwisely in many matters during the past few months. But the point is that we have continuously lost ground there and have fought what might be called a rearguard action in regard to the main problem of the Kashmir state...During the past few months, I have had no greater trouble or burden than this feeling of our losing grip in Kashmir.

Why did he not extend the same understanding in his direct exchanges with Sheikh Abdullah himself? Bluntly put, did Nehru have a split personality or was he being clever? Was he confused on cunning?

In the second quarter of 1953, both Jawarhalal Nehru and Sheikh Abdullah found their standings in their respective constituencies under threat. But there was a vital difference. Nehru was vastly more secure; when threatened he could always point to the danger from Pakistan. Abdullah's problem was far more acute. He found his popularity waning and pro-Pakistani feeling on the rise even in 1948 as Indira Gandhi testified to her father. The Delhi Agreement, if implemented, might spell his doom, he feared. Not without cause! In 1953 he was under attack from New Delhi, in Jammu and in Srinagar itself. His fingers on their pulse always, Abdullah *knew* that the people disapproved of his policy. His offer to Nehru of "full autonomy" (i e, cancellation of the Delhi Agreement) was the only alternative before him. Nehru could not sell it to India and was not interested in it either. By now both distrusted each other.

Nehru was impatient to 'end' the Kashmir dispute in 1953. Rather than patently deal with Abdullah, he chose to put him out of commission. The thought that he might use this opportunity for a dialogue with Pakistan now with Abdullah's approval did not enter his mind; it could not, given the mindset that produced the Note of August 25, 1952. Nehru used brute force to crush Abdullah and all he stood for and proceeded to follow the Note of August 25, 1952. In between he concluded an agreement with Pakistan for a regional plebiscite in August 1953 but soon resiled from it.

The point of no return for Abdullah and Nehru arrived in July 1953.

For the march of later and more fateful events we will have to wait for the next volume. Their consequences, however, stare us in the face today. They form the subject of Subrata K Mitra's essay 'Nehru's Policy towards Kashmir: Bringing Politics Back Again' in the volume edited by Richter and Wagner, two eminent German scholars. The volume comprises, besides, able essays on the MQM in Pakistan, the ethnic conflict in Sri Lanka, the political conflict in Bangladesh, which has split the polity vertically, not to overlook Partha S Ghosh's fine analysis of cross-border population movements in south Asia. Mitra's brief survey covers the years 1947-1986. His conclusions deserve wide notice in India:

> As long as they keep chanting the *mantra* that Kashmir is an integral part of the Indian Union on the basis of the Instrument of Accession and as a symbol of Indian secularism, India's policy-makers would stand dangerously exposed to the political and moral disapproval of the international political community. Nor is it any longer possible to make it a non-issue in internal politics: with the rise of Hindu nationalism, the earlier consensus has gone. In its place, there is a demand to strengthen the integration of Kashmir by removing Article 370, projected by the Bharatiya Janata Party and other parties of Hindu nationalism as the last obstacle to real integration. At the same time, ...it is politically inconceivable today for any political party to take the kind of initiative that Nehru was proposing towards the end of his life. India may not be able to impose law on Kashmir but she has demonstrated every will, and ability, to impose order. The tragic reality of the situation is thus that while the status quo is clearly far from ideal, the alternatives are far from realistic. The need of the hour is for quiet diplomacy based on legitimate interests of the conflicting parties as opposed to the rhetoric of plebiscite and the puerile argument of Kashmir as a guarantee of Indian secularism.

The truth is that after the Delhi Agreement of 1952, both Nehru and Abdullah found their popularity dwindling in their respective constituencies. Till then Abdullah was stoutly opposed to a plebiscite despite the fact that he had a most unpleasant experience of breach of faith practised by Vallabhbhai Patel, Abul Kalam Azad and N Gopalaswamy Ayyangar just before Article 370 was adopted by the Constituent Assembly on October 17, 1949. Had the agreed draft not been altered unilaterally, Abdullah's dismissal on August 8, 1953 would have been constitutionally barred beyond the slightest doubt (vide this writer's essay, 'Article 370: Broken Pledges and Flawed Secularism' in *Hindus and Others* edited by Gyanendra Pandey, Viking, 1993, pp 205-7). When Nehru pressed him to conclude the Delhi Agreement and thereafter to implement it while at the same time foreclosing all possibilities of a settlement with Pakistan by his note of August 25, 1952, Abdullah's mind turned to other options. It is a matter of opinion whether it was a bargaining ploy to set aside the Delhi Agreement or indeed to settle the future of the state once and for all. Nehru panicked and Abdullah was put in jail. In retrospect it is clear that we are in the mess we are in because Nehru had second thoughts on his promises to both the people of the state as well as Pakistan. He might have pulled it off had he allowed Abdullah's Kashmir to retain the status it enjoyed prior to the Delhi Agreement. Backing out of agreements with both Abdullah and Pakistan was, to say the least, unwise.

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Corporate Strategy and Planning in the Science City

Bangalore as 'Silicon Valley'

James Heitzman

Bangalore has in the recent decades seen an explosive growth of not only the software industry but of a diversified high technology research and industrial base. More recently, infrastructural problems, among other developments, have prompted the reopening of the long-standing debate on the sustainability of this growth, which is examined in this paper from the perspective of high technology organisations that have been driving formal job creation in the recent past. Presented here are four short case studies of companies active in the field of information technology and services: one a large-scale public sector enterprise; three indigenous firms that originated as small-scale enterprises and two companies started by multinational corporations. The studies demonstrate the new challenges facing these companies and the consequences of the ongoing shift from an older paradigm of state intervention toward the new paradigm of entitled liberalisation.

THE city of Bangalore (city population 2.63 million, metropolitan area population 4.1 million in 1991), has been one of the fastest growing cities in India and has provided a congenial atmosphere for entrepreneurship since independence. During the late 1980s, the electrical and electronics industries in Bangalore experienced profound shifts in the ground rules of competition under the impact of 'liberalisation' and greater opportunities for interaction with multinational firms. There has been an explosive growth of the software industry, which has given Bangalore the title of the 'Silicon Valley' of India among business circles worldwide,[1] but software companies comprise only one facet of a diversified high technology research and industrial base. Analysis of the business environment and corporate strategies within a variety of technological niches is necessary in order to understand the dynamics underlying Bangalore's recent growth and the possibilities for continued expansion of the city's economy. A long-standing debate has questioned the sustainability of this rapid growth on environmental grounds, and state policy has attempted to encourage the location of industries in other areas in order to create multiple nodes of industrial strength. This article will approach sustainability from the perspective of the high technology organisations that have been driving formal job creation in the recent past.

Bangalore had a long history as a centre for textile production, originally through a variety of non-mechanised and decentralised 'putting out' arrangements, then through the introduction of large mills during the late 19th and early 20th centuries. With encouragement of the government of Mysore, other industries began to grow in the Bangalore area, and during the second world war the establishment here of a number of public sector companies, including Hindustan Aeronautics, caused the greatest spurt in population growth the city has ever seen within a decade. The industrial base of Bangalore thus rested, at independence, on the two limbs of textiles (home made and factory made) and public sector enterprises. These two limbs remain even today the most important parts of the formal economy in Bangalore.[2]

We may distinguish four phases in the economic history of the city since

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For putting together this issue of the *RPE* with the focus on Science, Technology and Medicine we are grateful to Shiv Visvanathan who has penned the following general introduction to this selection of papers:

The study of science as a knowledge system still has no place in the university. What we have is Science Policy Studies which unfortunately is a reserve for retired or mediocre scientists happy to be extension counters of the current regime. Critiques of science have been more inspired by NGOs who have functioned as dissenting academics to the university. We decided to use *Economic and Political Weekly* as a floating academy, a forum for historical, social, philosophical studies of science, technology and medicine.

The current issue has six papers. The first by James Heitzman is an attempt to study the making of Bangalore as an information city. Heitzman began originally as an Indologist and is in fact an authority on the Chola period. His book *Gifts of Power* (OUP) is a study of Lordship in an Early Indian State. Heitzman now leads a parallel life as a computer and information expert. His essay is an evidence of his twice-born status.

Shambu Prasad's essay on cotton is an attempt to re-read its scientific and technological history. He shows how a certain view of commerce and an accompanying notion of technology created the tragedy of cotton in India. The second half of his essay demonstrates how Gandhian *ashrams* became research laboratories to redeem cotton. There are intriguing sections on Maganlal Gandhi and Richard Gregg.

The third paper is an essay on mathematics by the late Chhatrapati Singh. Chhatrapati was known more for his work on the philosophy of law and his researches into environmental law. He was also one of India's finest philosophers of science. This still tentative work on an Indian theory of numbers is evidence of the multifaceted nature of his work

Dhruv Raina is a historian of science. Along with his colleague Irfan Habib he has done much to revive the interest in the Indian mathematician, Ramachandra. Raina shows how the conventional history of science which creates a split between science and religion blinds one to the role of Jesuits in science. Raina provides a detailed understanding of the role of the Jesuits in the history of astronomy in India. It is a self-reflective work of a secular historian who looks creatively at the contributions of a religious group to the development of astronomy and its historiography.

The final paper by Shiv Visvanathan is a detailed study of the Lentin Report on the deaths in J J Hospital in 1986. Justice Lentin's investigation into the nature of responsibility became a classic report on medicine. Visvanathan analyses the extraordinary nature of the indictment.

independence. The first phase, during the 1950s and 1960s, was dominated by the government of India initiatives in locating public sector research and production facilities in Bangalore. These institutions still have a major impact on the city, the five largest public sector companies in 1991 officially employing over 81,000 people in their Bangalore plants.[3] Their direct impact, including management of their own townships, housing schemes, and transport systems, was supplemented by the numerous subcontracting opportunities they provided for small and medium enterprises. The second phase, beginning in the late 1960s and running through the 1970s, witnessed the rapid growth of state government bureaucracy, employment and eventually state-run businesses, helping to fuel the second largest spurt in the city's population growth during the decade of the 1970s. The third phase began during the 1980s, when Bangalore began to experience the effects of preliminary 'liberalisation' and private enterprises became growth engines, especially in micro-electronics-based companies. The fourth phase, beginning in the late 1980s, brought increasing and more varied relationships with multinational corporations.

The results of each of these phases still exist, inscribed in the physical space of the city and in the overall industrial structure of the metropolitan region. It is probable that the formal sector with the largest impact on employment is still textiles, if one includes the populations connected to silk weaving and cottage industries still visible in the old city and in Bangalore rural district. Next in importance are the public sector giants and the institutions of central and state governments. Although it is clear that business opportunities will remain in all these areas for the foreseeable future, it is doubtful that they will generate growth, employment or subcontracting arrangements that will keep up with the rate of population increase in the Bangalore metropolitan region. The growth of the economy will depend on the dynamism of private sector enterprises with high-value outputs, minimal environmental impact, and the ability to generate direct employment as well as indirect growth of services. The most likely candidates are micro-electronics-based companies in hardware and software production fields with a variety of connections with foreign firms.

This paper will present short case studies of companies active in the field of information technology and services, representative of the 'high technology' component in the industrial structure of the Bangalore metropolitan region. These cases include a large-scale, public sector enterprise, three indigenous firms that originated as small-scale enterprises within emerging technology markets, and two companies started by multinational corporations. These cases will demonstrate the challenges that have confronted these companies in the rapidly changing economic scenario during the last 15 years, and the shift that has been occurring from an older paradigm of state intervention toward the new paradigm of entitled liberalisation. The problems encountered by these firms and the strategies they have pursued for success, offer instruction on management strategy and public policy appropriate for the near future.

I
Indian Telephone Industries (ITI)[4]

The Indian Telephone Industries was established in 1950 in order to provide equipment to the department of telecommunications (DoT). Originally there were two units in Bangalore, but in 1973 ITI became a multi-unit organisation with plants in Naini, Palghat (Palakkadu), and Rae Bareli. Later, additional plants were established in Mankapur, Naini and Srinagar, and the second plant in Bangalore shifted to a 'model factory' in Electronic City. ITI had a large impact on Bangalore because of the large workforce employed there (the workforce in 1995 was about 11,000, including 4,000 in manufacturing) and its organisation of a complete township on the east side of the city and provision of extensive benefits packages for its workers, including housing facilities in multiple locations. ITI also offered lots of opportunities for subcontracting firms to grow up in the Bangalore area.

By the 1970s, political interference in this public sector company combined with retrograde technological decisions to cripple ITI's long-term competitive posture. The establishment of the Rae Bareli plant (in prime minister Indira Gandhi's electoral district) involved an investment of Rs 60 crore into crossbar switch production – embracing an already obsolete technology instead of collaborating with a foreign company to upgrade production of electronic components. The 1970s also witnessed the withdrawal of ITI from the export market, severely damaging its long-term market position. The main research wing until this time was the Telecom Research Centre in Delhi, which viewed ITI as a mechanical organisation with only technical experience in production.

The management of ITI took steps to upgrade its technological profile and modernise its management techniques. Chairman I K Gupta started research and development capacity in the mid-1970s. Chairman CSS Rao in the early 1980s insisted that the company grow its own managers and stopped additional recruitment. He tried to take ITI out of the ministry of communication and into the ministry of industry, the only acceptable alternative to privatisation at the time, but the move was quashed. KPP Nambiar introduced concepts of scientific management, corporate planning, and decentralised decision-making within the company. These moves were necessary because it was apparent by the mid-1980s that ITI would be operating within an increasingly competitive market. Competition for private area branch exchanges began as early as 1985; competition in the telephone instrument market began in 1987; crossbar production ended at the Bangalore plant in 1989. The pace of liberalisation increased after 1991 until 1994, when ITI found itself in a completely open market.

Although ITI was under pressure to develop locally or to indigenise modern equipment, it had regularly engaged in arrangements for technology transfer with multinational corporations.[5] By the mid-1990s ITI had technical collaborations with 16 foreign firms, including arrangements with ALCATEL for production of exchange equipment, with DSC Communications (Denmark) and AT&T for fiber optic systems, and with NEC Japan for microwave equipment. The tendency to rely on foreign collaborations, and the slow pace of development for switching technology appropriate to conditions in the country, was the stimulus for the founding of the Centre for the Development of Telematics (C-DOT) in 1988, and arrangements for transfer of its designs to ITI. During the 1990s, switch designs transferred from C-DOT were under production at Electronic City and Rae Bareli plants. The equipment produced by the main plant in Bangalore included digital switches, telephones, and equipment for microwave radio, coaxial cable, multiplexing, VFT channels, satellite communications, UHF/VHF systems, and fiber optics. ITI was rated 'excellent' for its performance according to a memorandum of understanding with the government of India from 1990 until 1994. In fact, until 1994 ITI

TABLE 1. PERFORMANCE OF ITI

	1984-85	1989-90	1993-94	1995-96
Sales and services (Rs in crore)	236 93	958.75	1,527.25	782 62
Profit after tax (Rs in crore)	15.51	29 48	84.35	-283.96
Total assets (Rs in crore)	362 64	994 55	1,494.34	1,173 15
Number of employees	30,126	32,334	28,633	26,272
Value added per employee(Rs)	54,997	153,401	268,708	104,244

continued to record acceptable growth statistics, having increased sales by 159 per cent and profit after tax by 286 per cent over a five-year period (see Table 1).

The crash came in 1994-95, when the company registered a loss of Rs 81 crore, but the situation became much worse the next year, with losses of Rs 284 crore. Net worth per rupee of paid-up capital declined from a high of 3.64 in 1994 to less than zero in 1996. Despite an increase in the quantity of equipment produced by 1996, its market value was significantly decreasing. Signs had appeared in 1993, with a 0.1 per cent decline in annual growth of the value of production, but the decline hit 35 per cent in the following year and 29 per cent by 1996. Export earnings declined from Rs 2.76 crore in 1994-95 to Rs 1.42 crore in 1995-96. ITI was not demonstrating an ability to compete in high-value market segments, but was still stuck with providing low-value products to a DoT that was diversifying its vendor base. During this period the company was without a chief executive officer for over a year.

One management response was to move away from the reputation of a strictly manufacturing company, redefining the business as full-service consultancy for telecommunications. With the division of the country into 18 telecom circles open to limited private competition in the mid-1990s, ITI could become a low-cost technology company offering bandwidth with technical expertise and decision support. The problem with this strategy was continuing opposition from its main customer, DoT, which blocked ITI's competition for basic services. Another management response was to downsize or 'right size' the company, lowering the salary and benefit bill in order to increase production costs for value-added manufacturing. Salary expenses in 1993-94 were Rs 186.73 crore and benefit contributions were Rs 22.28 crore. In 1995-96 these expenses had risen to Rs 203 crore and Rs 35.47 crore, despite reductions in the total number of employees. Expenditures on amenities for its employees, including maintenance of industrial townships, transportation, medical and canteen facilities, schools and social activities, parks and vegetable farms, amounted to Rs 66.66 crore in 1993-94 and Rs 76.75 crore in 1995-96. Labour unions and workers had fought bitter battles in order to obtain these wages and benefits,[6] and naturally responded slowly to management suggestions for dismantling this extensive system. ITI was already decreasing the number of employees by 1994 (see Table 1), and by 1997 the company had let go 4,000 workers through a voluntary retirement scheme (costing the company Rs 54 crore) and was planning to let go another 7,000 workers.[7]

ITI restructured itself into nine business groups targeting markets both inside and outside the department of telecommunications, such as defence, railways and electricity boards. A network systems unit was established in 1994-95 to position ITI as a provider of network services and value-added services such as email, paging, or voice mail. ITI formed a new company in collaboration with Korea Telecom for production of pagers, signed a memorandum of understanding with US-based James Martin and Company for software development and consultancy, and an agreement with the Swiss firm Ascom Energy Systems to manufacture power plants.[8] In 1993-94, ITI spent Rs 47.05 crore on research and development, but in 1995-96 expenses amounted only to Rs 33.35 crore, or 4.25 per cent of total turnover.

ITI began to turn around in 1996 under a new chief executive officer. Marketing, research and development again came under centralised management. Negotiations for technology acquisition from partners, which had involved one or two years, now concluded in six months. In-house subcontracting began to replace outsourcing. Regional marketing and customer support offices were reactivated. Losses in 1996-97 declined from Rs 284 billion to 51 million. A Rs 100 billion bond issue in September/October 1997 was oversubscribed and the company was expected to break even during 1998-99.[9] The survival of ITI, therefore, was no longer in doubt, but after the downsizing and the cutbacks in external subcontracting, it was no longer an engine for job creation in the Bangalore area.

II
Namtech[10]

KPP Nambiar began his career in England doing research on silicon semiconductors, including work for Transitron, a US corporation. He returned to India in 1963, worked for Phillips India and then helped start Tata electronics research and development capabilities in Bombay. In 1973 he moved to the Kerala State Electronics Development Corporation (KELTRON), where he became chief managing director. This corporation was the first of its kind in India, and served as the model for later innovations in other states including KEONICS in Karnataka. In 1985-86 he was chief managing director of ITI in Bangalore, where he oversaw the transition to electronic switching equipment. He became the secretary of the Indian government's department of electronics from 1987 to 1989, where he directed moves toward liberalisation.

His son, Padman 'Sunny' Nambiar studied at the University of Wales and obtained a degree in electrical engineering in 1980, after which he worked in Phillips Research Laboratories, Surrey, on projects systems integration, microprocessors and graphics. Returning to India, he began the Namtech group from scratch in 1984. The first organisations on the books were Namtech Consultants (NCPL) and Namtech Systems (NSL). In reality, NSL remained dormant for several years. Only NCPL, begun with absolutely no capital functioned as a platform for accumulating knowledge of local conditions and transferring technical, project and systems knowledge to the Bangalore area. The reasons for choosing Bangalore as a business site, in order of importance, were (1) the desire for a south Indian location to take advantage of his family's expertise: Kerala, the ancestral home with KELTRON ties, was seen as politically volatile and a poor labour market for technical personnel; (2) the nice climate (3) the labour base, with fewer union activities and cadres of workers eager to live there because of the climate and intellectual environment for technology. The business strategy followed from the start was to cultivate Indian markets for foreign electronics components until Namtech could introduce their own production regime and capture markets directly. Everything Namtech did therefore, was a strategy for technology transfer that moved fully-researched and operational production, created overseas into their own hands with indigenous markets already penetrated.

In 1986 NSL began marketing gas discharge tube surge arrestors for telecommunications equipment such as phone lines, primarily for DoT. This initial marketing agreement with CITEL France changed into a licensing agreement in 199[illegible] which included complete transfer of production processes with equipment from the US, France and Switzerland. In 1987 a $50,000 investment and a licensing arrangement with the Ronan Engineering Company of Los Angeles established a scheme to produce and market a line of eight separate instrumentation, control and testing products useful in a variety of industrial and power generation plants. Ronan received a royalty of $65,000 and 10 per cent of sales. The fabrication of these products, which used primarily foreign electronic components, was manpower intensive, which made assembly in India particularly attractive. For example the X-86 process instrument calibrator, sold to over 200 plants in India, required careful and time-consuming calibration in the factory before delivery. However, large casted components and mounting boards were subcontracted to firms primarily in Bangalore, to make use of the installed base of mechanical engineering firms near the plant. These outsourcing arrangements

were so successful, and the quality so high, that Ronan began to ask for payment in the form of casted components rather than cash. In 1994 NSL decided to discontinue four Ronan products but agreed to produce and market eight additional products, giving Ronan royalties of $90,000 and 10 per cent of sales.

The factory for NSL was located in a two-story building at Electronic City. The management here came from Kerala through contacts from the elder Nambiar's KELTRON days. KEONICS, which managed Electronic City, promised preferential allocation of electricity and water, but NSL experienced shortages typical of locations in the Bangalore region, including power outages up to four hours daily and water availability at about 50 per cent of requirements. These infrastructure problems necessitated the installation of equipment for electricity generation and uninterrupted power supply, and the boring of a tube well for water. The roads at Electronic City were also in very poor shape, giving evidence of construction with sub-standard materials and little if any maintenance.

With the expansion of the CITEL arrangements in 1990, the Nambiars created a new company, Namtech Electrical Devices (NEDL), and set up another factory down the road from the first plant in Electronic City. The new plant involved considerable investment in equipment, including a $1 million heating machine. The management here, recruited from Kerala as before, made great strides in just four years in the indigenisation of technology, inserting computers made at NSL as control devices and duplicating entirely some testing equipment and cast parts with locally-milled components. By 1995 Namtech began production at this factory of a new line of ceramic arrestors through arrangements with Suntech, a Japanese firm.

By the early 1990s Namtech had identified a market for thermistors in India, and began a search for foreign collaborators that ended in a marketing agreement with Bowthorpe, a British firm that was among world leaders in this technology. In 1994, with Namtech controlling 70 per cent of the market in India, they created a company for the production of thermistors in a new factory in Electronic City ready in 1995. This was a novel arrangement for Namtech, because Bowthorpe controlled 74 per cent of this company and Namtech 26 per cent, making Padman Nambiar into just one of many managers worldwide reporting once a month to a head office in London.

By 1994 Namtech was employing 100 people in the Bangalore area, of whom 35 were in three offices in the city in marketing, secretarial and accounting roles, while the remainder worked in two plants in Electronic City. With the addition of a new plant and expansion into new lines for control and telecom equipment, the company was expecting to double its work force within two years. Namtech maintained a van for transportation of employees to and from Electronic City, since traffic was terrible on Hosur Road during the rush hour. They were planning to build their own office locations off Hosur Road on the outskirts of the city to avoid the time-consuming commute. There was also an office in the city called 'The School,' which fronted as a training institute for multimedia computer applications. This was the place where most corporate presentations occurred for prospective clients, investors, or collaborators. In 1994 NCL was worth $700,000, $1.5 million, and NEDL $2 million. NEDL was first listed on the Bombay Stock Exchange for Rs 10 per share, which rose to Rs 100 per share by 1994; the Nambiars controlled 35 per cent directly or through NCPL. Capital invested in Namtech totalled $5 million, with $1 million post-tax profit.[11]

III
Infosys[12]

Infosys Consultants began in 1981 with an investment of $300 and with N R Narayana Murthy as chairman and managing director. The original purpose of the company was to make use of inexpensive but well-trained software engineers in India to provide offshore and onsite consultancy on corporate programming projects mostly in the US. The company was, in essense, a body-shopping centre that exported labour and expertise, and thus was a precursor of the many software houses, both Indian and foreign, that later grew in Bangalore. Infosys competed as a vendor offering turnkey contracts for software engineering projects; used the difference in time zones between India and the US to allow 24-hour productivity in maintenance operations, as customer and vendor teams were able to work in relays; and pushed the concept of the 'offshore software development centre' that functioned as an extension of a customer's software staff. During the first year of operations, revenue amounted to Rs 1.16 million and profit after tax was Rs 3,78,000. During the next 10 years, annual revenues grew to Rs 100 million.

By the late 1980s the management of Infosys predicted that enhanced competition for professional personnel within India, and increasing competition from firms in other developing countries, would eventually restrict growth in consultancy services. They therefore decided to move up the value chain by developing their own business software products in order to compete internationally within specific niche markets. The products developed by Infosys included the distribution management application package (DMAP), a suite of 600 programs designed for distributors of consumer products, used by Reebock in France; EAGLE, a warehouse management package used by Reebock in Russia; and BANCS 2000, an automated banking package installed at over 60 bank branches in India by 1995.[13] By 1997 additional products focused on client server architectures.[14]

During 1992 the Indian government's economic liberalisation policies were attracting more foreign companies that located software shops in Bangalore, competing for skilled personnel and potentially eroding the margins of the offshore consultancy operations. Infosys decided to invest capital in software development centres in India and to accelerate the move toward product development.[15] In 1993 the name of the company was changed to Infosys Technologies and there was an initial public offer of stock. A new corporate office in Electronic City, touted as the largest of its kind in the country and involving expense of US$7 million, was inaugurated in February 1995; in a 1,25,000 square foot building there were over a thousand networked computers running at speeds of up to 10 mbps, 30 servers, video conferencing and multiple 64 kbps communication links, and backup electrical generating capacity of 760 kilowatts. In 1996 Infosys terminated its arrangement with Kurt Salmon Associates and established a new wholly-owned subsidiary, Yantra Corporation, based in Massachusetts, for the purpose of marketing and supporting software packages developed by Infosys.[16] The new corporation purchased EAGLE (renamed WMSYantra) for US$10 million in the form of 50,000 equity shares.

In 1995-97 Infosys still derived 73 per cent of its revenues from software development or maintenance, and was continuing to innovate in these areas. For example, they landed a contract to supplement the computing staff of Nordstrom, a US-based fashion specialty retailer.[17] The In 2000 service was an extension of its long-term consultancy services to address the Year 2000 problem, but management intended to restrict this facet of the business to between 25 and 30 per cent of total sales revenue. Instead, the company continued to push development of its own products, and in 1996-97 invested over US$2 million (5.17 per cent of total revenues) in research and development (up from 3.40 per cent and 3.50 per cent in the two previous years). Revenues from its own products, which had risen to 23 per cent of revenues by

1997, were projected to cross 30 per cent by the year 2000. New products included BankAway!, an electronic banking product for the World Wide Web, and Websetu, a suite of tools enabling construction of Internet-based electronic businesses. PorteNT was a solution to port programs from the OS/2 or UNIX operating systems to Windows NT. The company now adopted a structure based on five strategic business units focusing on specific business domains, plus 10 groups dealing with specific products or management fields (eg, education, technology infrastructure, human resources). Infosys had eight development centres in India, six sales offices in the US and two in Europe. The revenues of Infosys grew from US$2.64 million in 1991 to US$18.11 million in 1995 to US$39.59 million in 1997, while net income grew from US$4,09,000 in 1991 to US$9.41 million in 1997, when the company was worth $550 million and had 6,526 shareholders. Infosys was still getting 87.12 per cent of its earnings from exports and 76 per cent of its business from the Americas, and thus stood as one of India's great success stories in offshore software consultancy and innovation.

One of the strengths of Infosys was its concentration on human resources and public service issues. In March 1997 the company employed 1,705 employees, labeled 'infoscions,' including 1,261 revenue-earning software engineers, and intended to hire 700 more; employee costs were 36 per cent of total income. After borrowing US$2.06 million from the Housing Development Finance Corporation (HDFC) in 1994, Infosys constructed quarters for some of its staff, and provided a small fleet of buses for transporting employees to and from the Electronic City offices. Infosys provided an attractive benefits package and cultivated a collegial, campus-like atmosphere complete with sports facilities and daycare at its main offices, in an attempt to retain trained personnel in a field where employees typically stayed less than three years. Five per cent of revenues were spent annually on employee training. Concerned about traffic problems on Hosur Road which led to Electronic City, Infosys donated Rs 8.78 lakh to the Bangalore Traffic Police for purchase of an ambulance and six motorcycles, and established the Infosys Foundation, a non-profit trust to promote social causes. Three social programmes had begun by 1997: 'Catch Them Young', which taught algorithmic thinking and programming to school children; 'Train the Trainer', an outreach programme to local academics; and 'Reach the Rural', which attempted to disseminate education in villages.

IV
Informatics[18]

N V ('Satya') Satyanarayana received his masters degree in Library Science from the University of Mysore in the mid-1970s and faced a standard career in special libraries. He worked as a library assistant in an Udupi college, then worked at the Indian Institute of Science before joining the library at Smith, Kline and French (later Eskayef). He began to conceive of a private company that would help provide databases that were currently unavailable in India: "It was here that I realised how starved for information Indian industry was. I began to see the tremendous possibilities this field had." Later that year he joined the library at Hindustan Machine Tools (HMT) and met Suryanarayana Rao, an accountant: "We both decided that this thirst should be quenched. That's what prompted us to tap this field which resulted in Informatics."[19]

Satyanarayana began Informatics in 1979 and incorporated the company in 1980. The original mission had a broad profile, including provision of library supplies (including furniture), trading, design, reprography and document delivery through manual searching. Initially he and his employees carried out searches for clients in well-equipped libraries around Bangalore, including the library at the Indian Institute of Science. There was a gradual focusing on institutions of higher learning and industries conducting research and development; at that time there were less than 300 research and development establishments in Bangalore (by 1995 the number had grown to more than 1,500). An important role initially was acting as a broker for subscriptions to journals.

Informatics began an informal relationship with Dialog Information Services in 1984, with access through telex. Business that year amounted to Rs 8 lakh, and included customers such as Tata Chemicals, the Gas Turbine Research Institute and the Defence Scientific Documentation Centre; most queries came from the pharmaceutical industry, followed by the chemical industry. By 1990, when Informatics formally became Dialog's international training and educational consultants for the south Asia region, they had serviced over 400 different clients; in that year Informatics gave out passwords to 62 out of 65 Dialog users in India.[20] In 1991 Informatics participated with Dialog in the introduction of KOMPASS ASIA/PACIFIC, a business directory of Asia-Pacific companies.[21] The job of Informatics was to create a mass of mostly business users for Dialog (and, after 1993, for Dialog DataStar)[22] through the sale of passwords and training conducted by an Informatics office in Bombay. In this role, Informatics organised in Bangalore the Infotex '93 Conference officially attended by 226 representatives of government and business.[23]

In 1990 the department of science and technology had entrusted to Informatics the jobs of identifying international scientific databases available online, and the creation of a database on parliamentary questions and answers on science and technology.[24] During the next year Informatics won a contract from the Developing Country Trade Agency (DECTA), run by the British Government's Overseas Development Administration, to set up an Export Opportunities Service (EOS) in India, providing potential Indian exporters with targeted market data and tender notifications. Another project was an arrangement with Predicast (USA) to develop a techno-commercial database on Indian industry and business by scanning leading financial dailies and journals.[25] It later worked with Reuters to supply Indian data for their databases, while between 1990 and 1995 Informatics contributed 23,416 records from six leading Indian newspapers and journals to the PROMPT database of Information Access Company, USA.[26] By 1991, in addition to Dialog, Informatics was providing corporate representation to six other major information vending companies and access to 10 international database systems.[27] In 1993 a new company, Faxon Informatics, emerged from a deal with the US-based Faxon Informatics, the latter holding 40 per cent (with an equity base of Rs 3,00,000) and Satya's company holding 60 per cent. After this 'fusion of leaders', all current projects except database exports and those associated with Dialog were turned over to the new partnership.[28]

One of the main problems in expanding the online business was the state of international telecommunications during the 1980s. Only in 1986/1987 did packet switching become available for international computer communications. In September 1989 a breakthrough occurred when Videsh Sanchar Nigam (VSNL) to set up the Gateway Packet Switching System (GPSS) in Bombay. Informatics co-operated with VSNL in establishing an online database service centre called Infotel, initially consisting of two computer terminals connected to the gateway switch and a library of software and manuals to aid database searching. Satyanarayana was highly critical of high tariff rates on international business calls from India.[29]

By 1990 there had been a dramatic change in the mission of Informatics. Although commissions on magazine and journal subscriptions still accounted for 65 per cent of a turnover of Rs 1.25 crore,[30] the company had shifted away from the

primarily at the information needs of people in industry, including managers, engineers, and others in positions of decision support who utilised external sources of information. For this purpose Informatics became more active in a variety of awareness seminars. In June 1990 Informatics celebrated its 10th anniversary by organising a seminar on 'Database Production and Distribution Industries for the 1990s', the first of an 'Annual Lecture Series on Telematics' that served as a major focus for the information society in Bangalore, bringing together in one place people from business, telecommunication and library communities. Satyanarayana repeatedly emphasised that his biggest problem was not the size of the potential market fors services, but an awareness among customers of the value of information. In 1989, at the inauguration of Infotel, he said

> In India we are still not an information-conscious society and that most decisions are based on feelings and emotions even at corporate levels. This tendency has proved to be very expensive for us. The object of Infotel is to change this culture and spread a new information culture to benefit decision-making processes in an effective manner.[31]

Satyanarayana noted that among the thousands of global databases available internationally there was not one from India. He called for an opening of the vast archives of data stored in hundreds of government agencies: "It's impossible to get the public domain data anywhere from India, as most of the labs and institutes are not sure of making them public".[32]

By the late 1980s, Informatics was one of the only private businesses in India attempting to market compact disk (CD) database products to the Indian market. In 1988 they tied up with Silver Platter, Inc from the US to provide foreign databases, and gradually used their connections with Faxon to introduce a wide range of CD products.[33] By 1997, the explosion in the Indian CD market, and the widespread availability of CD production technology in India, allowed the company to upgrade its own facilities and outsource CD production. One result was EXIM INDIA on CD, an 'electronic book' on Indian foreign trade regulations that provided reference to customs, excise, imports and exports policies, procedures and tariffs, with search engine and hypertext links.[34]

In 1995 the Dialog operation accounted for approximately 40 per cent of Informatics business, CD subscriptions and systems for 40 per cent, and the old periodicals provision for 20 per cent. The Dialog business was stagnant, however, and one year later accounted for only relationship with Dialog then ended in 1996. The decline and loss of the online business pushed Informatics into a greater emphasis on CD products and support. The company now included a CD-ROM division in Bangalore and a CD Tech division in Pune, involved in the systems integration work that was the biggest growth area. Consulting services providing complete 'document management' solutions for networked CD database systems, including hardware and software vending, installation and support, and CD production facilities. In 1995-96 growth was 40 per cent because CD products took off. Informatics employed about 75 employees, including four operating out of an office in Pune, three in Calcutta, and six in Delhi. But the advent at last of a new technological paradigm provided another challenge for the company. In 1997 growth was only 12 per cent because increased availability of the Internet, according to Satya, put a 'transitional lethargy' into purchasing, 'stopping people from buying information'. Informatics was poised to move into business on the Internet, but Satya complained bitterly of the continuing monopoly over Internet access exercised by the government that was choking online entrepreneurship.[35]

V
Multinational Corporations and 'Offshore' Software Facilities

The concept of Bangalore as a 'Silicon Valley' took off in the mid-1980s under the impact of Rajiv Gandhi's policy of economic liberalisation in several high technology fields, including electronics. There was an announcement in 1985 of a software technology park scheme, with special rules and concessions for 100 per cent export-oriented units (EOU). The first, and most influential, multinational corporation attracted at that time was Texas Instruments, which chose Bangalore because of the ability of technical personnel to work with English and to absorb training, a potential labour pool emerging from the Indian Institute of Science and other educational institutions, the already installed base of electronics industries and subcontractors, the attractive climate, and relatively cheap real estate. In a successful case of technology transfer, Texas Instruments set up a 64 Kbps data link and later turned it over to the department of telecommunications. This allowed the Bangalore team to develop and support software and transmit code online to the US and other locations globally (By 1994 the line was operating at 128 kbps).

The projects beginning in August 1986 focused on a Design Automation Division, where proprietary computer-aided-design ... of integrated circuits, including applications for simulation, testing, layout and verification. In mid-1988 TI India expanded its activities to include design of mixed signal integrated circuits and development of a wider range of software. In 1990 design activities began on application-specific projects (cell libraries, methodologies and support software for very large-scale integrated circuits) and memories based on dynamic RAM and non-volatile semiconductor technologies. An Information Technology Group began to re-engineer mainframe transaction-based applications for customers worldwide using proprietary computer-aided software engineering tools. TI India began in 1986 with 26 engineers, a total staff of 33, and revenues of US$.5 million. By 1994 it employed 230 engineers, a total staff of 270, and generated revenues of US$6 million. Unlike the original Silicon Valley experience in California, it did not generate new spinoff companies and did not land direct design contracts from customers, although by 1994 Indian staff were working on training and subcontracting links with staff from educational institutions in Bangalore, and a Corporate Venture Projects organisation was looking for new business based on TI's digital micro-mirror device.[36]

The image of Bangalore as 'Silicon Valley' was already established when Will Bailey of the Australia and New Zealand Banking Group (ANZ) had a conversation with prime minister Rajiv Gandhi on obtaining a license to buy Grindleys Bank, which had numerous offices in India. He promised, as part of the agreement, that ANZ would do something to reimburse India. This evolved into the creation of Index Computing, a wholly-owned subsidiary of the holding company ANZ International, Singapore.[37] The Bangalore office opened in 1989 as an export oriented unit with D Chaudhury, who had 22 years experience with ANZ, as managing director. It was part of an A$500 million investment in information technology in three sites (Melbourne, London and Bangalore) dedicated to software production. The original investment in the Bangalore operation was Rs 70 lakh, with a staff of 22 professionals.[38]

The first job was performing some low-level mainframe conversion work for ANZ. The second project involved re-programming of retail banking software for offshore offices purchased by ANZ from a UK company. Index initiated customisation and development that changed an obsolete banking package from an NCR platform to a database kernel running on a PC platform, introduced LAN connectivity, and set up interactive front ends that

allowed funds transfer, teller operations, statement storage, online data entry and verification. They attached a signature module that allowed digital scanning and presentation of photos, signatures and documents, and called the package BANC, which they marketed to banking and financial institutions worldwide for back- or front-end office applications. It became their core product that generated a major segment of income through the early 1990s. Other projects involved a minicomputer environment for source code production control products, trade finance products, research and development on handwriting capture software, and outsourcing work ('body shopping') for ANZ as well as firms in the Gulf States and Singapore. About 25 per cent of the outsourcing work was on HOGAN, a worldwide mainframe banking product. Sales increased 35 per cent between 1991 and 1992, and profit after tax increased from Rs 1.6 crore (US$.5 million) to Rs 3.2 crore (US$1.1 million), with a value addition of 73 per cent within the first three years of operation.

By 1991 the staff at Index reached 126 persons and was projecting a major expansion, when ANZ experienced major problems and underwent restructuring that included shedding of professional staff. In the opinion of later general manager John Pinnis, Index was 'hitting the wall' because it had reached a state of maturity that necessitated a focus on core business areas in distinction to an early tendency to take on all sorts of poorly-articulated projects with short-term dependence on outsourcing contracts. So by 1993 the goals changed to a limited technology set, specified ranges of customers, and limited products. Pinnis refocused business on the ANZ Group and a small set of key external customers who could provide front-end marketing and first-line service for Index products worldwide.

For initial operations there was an IBM AS-400 minicomputer with some work-stations in stand-alone mode. This changed by 1994 to a local area network with five servers and 100 nodes. Communication links until 1989 were dial-up through DoT phone lines, with no guarantee of access and a high failure rate. There was no digital exchange and legislation did not permit transfer of media, so product transfer involved physical movement of disks or tape. By 1990 Index had acquired a dedicated line that allowed voice, email and data transfer speed up to 9.6 Kbps through Group Data Network with leased lines from DoT and VSNL.[39] A 64 Kbps connection installed through DoT to Bombay with an uplink to a satellite made possible real-time computing after 1992. Five years later Index was developing a high speed data communications backbone for all its south Asia offices, including a triple level of redundancy: a base terrestrial system through DoT; VSAT connections between metropolitan centres run by vendors; and radio cellular links. Index was also setting up four customer service centres.

In 1998 ANZ Grindlays Bank had 56 offices in India, and Index was providing programming for all south Asian offices as well as technical services for South Asia and west Asia. Index employed 150 professionals, in addition to 15 more for Oracle/Unix and NT work in Bangalore and Chennai. The company had enough work to easily employ 250 people, but ANZ had limited its expansion. The 'Year 2000' problem was a massive issue for ANZ Grindlays, involving between A$150 and A$200 million of reprogramming. By late 1997 Index was devoting 70 per cent of its resources to this issue, leaving 15 per cent for new business and 15 per cent to file-and-fix operations. Index was tapping no external markets at this time, and had been turning down millions in contract offers annually. The strategy was to expand slowly but consistently. General manager Denis McGee expected a 'fourth wave' of demand for IT resources as organisations concentrated on built-up demand, so expansion in the industry could be dramatic.

The main advantages with the Bangalore location remained the schools, which were still churning out enough people so that for four jobs offered, Index was receiving 1,000 applications: and the operational cost differential, which in McGee's opinion was fast evaporating. Salaries were increasing at a rate of 20 to 25 per cent annually. Workers, especially in the entry level (less than three years seniority), would shift jobs 'for ten rupees'. There was a big drain to the US, Canada and Singapore, where banks and other offices would pay three times what Index gave and include numerous perks. The location of Bangalore remained good for ANZ operations, since it was cost effective to travel to and from Europe, Asia and Australia to deal with client problems.

The big problem was that hidden costs of operating in Bangalore were making it more difficult for multinational corporations to move into Bangalore, and McGee predicted that within a horizon five to 10 years in the future it would become as expensive to run operations there as it would be in Australia. Infrastructure issues were the big headaches, including poor water (they had to pay Rs 600 daily for two water lorries), power so irregular that they were running their generator eight hours a day with fuel costs rising 50 to 100 per cent annually. Parking was unavailable in their Cunningham Road location, and expenses of providing nice housing for the Australian personnel in India were escalating. ANZ was already exploring possibilities in other places like the Philippines.

VI
Corporate Strategy

Under the economic paradigm dominant until the 1980s, the structure of high technology innovation rested with a number of government-supported research establishments (the apex in Bangalore being the Indian Institute of Science) and with a limited number of large companies, such as ITI. In addition to their large internal labour forces, these companies relied on subcontracting of specialised components from a number of engineering and production firms, which were effectively captive to the market provided by the public sector. Thus Bangalore enjoyed a thriving subculture of small and medium enterprises connected by contractual arrangements to the public sector. Within protected markets, in the absence of intense international competition, there was a tendency for technology to remain one to three generations behind that available in north America, Japan or Europe. Agreements for technology transfer occurred primarily within large corporations which then transmitted design specifications for production, perhaps with enhancements through indigenisation, to internal units or to external subcontractors, who would then produce with minimal value added. An impressive level of growth and employment generation was possible within this business world that was large, but bounded and increasingly fragile.

The transition to a new paradigm was being completed in the 1990s, but it is clear from the cases examined here that it was underway by the early 1980s. The fate of ITI demonstrates in extreme form the impact of this transition on the public sector behemoths, as an inability to innovate or to explore new markets doomed the company to live on borrowed time until quite late, only to experience the fall out from market erosion and a bloated corporate culture by 1995. While the other big public sector firms in Bangalore did not suffer to this extent and made the transition more effectively, the overall result of these changes was job loss for employees in a downsizing phase and a slow-down or outright shrinkage in subcontracting opportunities for small and medium firms. There is little doubt that the big public sector companies will survive and (even in the case of ITI) grow at acceptable rates in the near future, but it is likely that their overall impact on the economy of the Bangalore metropolitan region will decline. This means that Bangalore must look elsewhere for models of growth and employment generation.

The cases of successful small and medium businesses indicate that they owe a great debt to the public sector for the training of their management. The debt is visible at least in managerial training through the Indian educational system, but is most obvious in the case of the originators of Namtech, who established an independent company that fed parts primarily to ITI. Entrepreneurs of this type of small business emerged from government-supported institutions and utilised their contacts there to understand emerging markets inside and outside those institutions in order to create new businesses. Many of the skilled personnel essential to the competitive advantage of these companies similarly had spent their early careers in the public sector, but migrated out in search of better wages and more interesting projects. The public sector was, in this sense, a stage in the assembly of capital and human resources that established a critical mass of market opportunities and people, allowing the emergence of an internationally competitive high technology.

These firms went through a stage of passive adoption of designs, inventions, tools or projects originating in foreign companies. This appears in the strategies of Namtech for capturing Indian markets with foreign-developed components, Infosys's beginnings as an exporter of programming talent for north American projects, and the growth of Informatics as a vendor of foreign databases. With Indian R and D and markets still in their infancy, the most effective strategy was to establish joint ventures for technology transfer or to accumulate capital by landing low-end contracts that brought in foreign exchange. Later, as personnal commanded up-to-date expertise and the Indian market matured, processes of technical indigenisation and market capture could occur. It was then necessary to move toward internal development of new, high value products applied to the Indian market in particular or to an international market. The management of Infosys in particular has repeatedly stated that the Indian software industry must move to this stage if it intends to continue growing in the long term.

A recurring theme in the cases examined here is the 15-year struggle between an emerging economic paradigm and government policy. For ITI the struggle ultimately concerned its own independence within an increasingly archaic model that defined a bounded field of technology and society and then allocated specific and unchangeable roles to organisations within that field – a model that was ultimately incapable of accounting for rapid technological or social change. A similar fate was in store for Informatics, which repeatedly encountered import restrictions based on obsolete understanding of technology and the Indian government's monopoly over telecommunications. The biggest problems faced by all these companies was basic infrastructure – water, power, roads, telecom facilities – which forced them to supplement or purchase these things on their own and to cut into their own margins.

The experience of Narayana Murthy from Infosys was particularly instructive. Infosys conducted annual strategic planning exercises and he was particularly concerned about the role of technology companies in the growth of the country and in the planning of their own environment. He had participated in planning discussions at the State Planning Board, the department of industries and commerce, and the Bangalore City Corporation. He was regularly confronted with meetings that led to no decisions and an inability of even the highest-level bureaucrats to access data structures that could describe programme status or alternative planning scenarios. The message he presented was that all planning activities require a coherent administrative structure based on dynamic systems models producing graphical output, allowing people to look at policy options and their impact on the city. This would require trained personnel devoting attention full-time to the relationship between information technology, systems and targeted planning outputs. A comprehensive vision of an extended time horizon, allied to effective budgetary and executive powers was necessary. A foreign firm with experience in this area, hired regardless of price, could provide the expertise in equipment and methodology and the ability to train personnel in India or abroad. Funding from agencies like the World Bank could link with this. He felt that the response of most bureaucrats was that this approach was either too sophisticated or too theoretical.

Three or four years earlier it appeared that Bangalore and Karnataka would receive lots of information technology investments, and during the period 1991 to 1996 there was an acceleration. By late 1996 Narayana Murthy noticed that fewer organisations were coming or showing interest. The apathy of the state government even in Electronic City, the lack of investment in infrastructure improvements, were reducing information technology inputs. The problem in the state government was that bureaucrats continued to point to the flow of projects coming into the area as proof that nothing was wrong, but many of these represented the implementation of schemes devised during the previous five years, rather than new projects. Under these circumstances, high technology firms faced with rising costs of doing business in Bangalore would look elsewhere. Even Infosys was looking seriously at alternative sites in China, the Philippines, Costa Rica and Barbados as places where they could relocate offshore activities, leaving Bangalore only as a co-ordinating centre for expanding operations. In his opinion, the metropolitan region had about five years time to turn the situation around, before irremediable shifts in capitalist tactics resulted in the abandonment of Bangalore.[40]

The expansion of the software industry has been a body-shopping exercise. The influx of multinational software firms, which contributed to the international currency of the 'Silicon Valley' epithet, began during the 1980s as an explicit move to exploit the cheap but skilled labour emerging from institutes of technical education, within an urban environment where the cost of externalities was still not high enough to offset the savings in personnel costs. By the 1990s some firms were making progress in moving away from this employment model and attempted with some success to create independent lines of products and services, but ultimately the continued success of offshore production in Bangalore rested on the ability of its firms to provide quality products at lower cost, which meant control over expenses for payroll and physical plant. The healthy, annual expansion of Indian software exports in any particular location thus relied on a fragile relationship between the local labour market and infrastructure provided by public institutions. Liberalisation has challenged government agencies to provide, at public expense, the services and labour that would allow private enterprises to operate with no guarantee that they would remain in one place. In the final analysis, planning decisions by public planning agencies have become crucial in the provision of services and infrastructure that allow the continued growth of the science city.

VII
Public Policy and Planning

Bangalore has enjoyed a long history of public planning.[41] In 1945 the City Improvement Trust had come into existence, eventually producing an Outline Development Plan from 1961 to 1976 for 500 sq km including 220 sq km of compact development. The Bangalore City Corporation (BCC), founded in 1949 with the combination of the municipality and the cantonment, created its own City Planning Board as well. In an attempt to co-ordinate the efforts of these two bodies, in 1976 the government of Karnataka brought them together into the Bangalore Development Authority (BDA) which took

eight years to come up with a Comprehensive Development Plan for 1986-2001, subsequently revised in 1994.[42] By this time the urban area had expanded to include almost all of the original 500 sq km of planned space. In response, the government of Karnataka set up the Bangalore Metropolitan Region Development Authority (BMRDA) in 1985, with authority to plan for a 'metropolitan region' including Bangalore urban district, Bangalore rural district, and one taluka in Kolar district; in practice this meant those areas not already covered by the planning activities of the BDA and BCC. It was not until 1995 that BMRDA was able to generate a preliminary 'structure plan' for the region.[43]

The restriction of planning activities within three agencies, each geographically nested within a higher office, should simplify decision-making and lead to co-ordinated policy and vision. There are several reasons why this has not happened. First, the state government established a variety of agencies for the provision of basic services (e g, the Bangalore Water Supply and Sewage Board, Karnataka Housing Board, and Karnataka Electricity Board), and a separate series of agencies for the encouragement of industrial development (e g, corporations for the management of industrial parks such as Electronic City) that have developed their own agendas, exercised independent control over sections of the urban periphery, and attempted to cut special deals with the service agencies. Second, the concentration of decision-making within state government agencies, a kind of 'colonisation' of public institutions by the state, divorced public policy from local conditions and from local constituencies. Fixing potholes in the road outside one's office became a tangled problem resolvable only at high levels in the state government Third, the potential for corruption in these conditions has become ever greater not only for members of the bureaucracy who act as gatekeepers for resources and services, but also for elected representatives who find opportunities to intervene within bureaucratic procedures and policies.[44] The further insertion of judiciary as a tool for furthering or blocking the programmes of government agencies has resulted in slowness and inefficiency in allocating land and resources.[45]

The direction of planning took a new turn in 1992 with the passage of the 74th Amendment to the Constitution, the Nagarpalika Act, which included among its provisions the requirement to create district planning committees and metropolitan planning committees The composition of these committees rested with the state government, but they required initial reconstitution of corporation councils and district panchayat councils, themselves reconstituted by the earlier 73rd Amendment.In September 1994 the government of Karnataka amended its own laws to accord with the 74th Amendment, and then embarked on a four-year process of redefining local election constituencies and powers of local 'wards committees.' During this period the future of the BDA and BMRDA and their relationship with either the service agencies or industrial development corporations remained uncertain, for their roles within the projected metropolitan council remained unknown and virtually undebated. BDA had accumulated a large staff and considerable power over its own planning area, but had a poor reputation and did not officially operate at the 'metropolitan' level. In the immediate aftermath of the 74th Amendment's passage, BMRDA expected its own demise, but as time went on there were indications that the state government might rework it into some new form of metropolitan council. Meanwhile, there were three chief ministers of the state within a three-year period, resulting in a discontinuity in leadership.

The result of these political changes was a period of five years in which there was little overall management of planning or vision for the long-term development of Bangalore. During this time there were clear indications that investment in infrastructure lagged behind growth of population and construction in the city and its environs. Furthermore, there was only limited success in attracting external sources of capital for implementation of infrastructure improvement programmes. As a result, the externalities associated with urban congestion and competition for services, combined with a steady rise in labour expenses, lowered the attractiveness of Bangalore as an arena for private investment. While the city still had advantages over other metropolises such as Mumbai or Delhi, it experienced more effective competition from Hyderabad and Pune. Because Bangalore was operating in an international investment scenario, cities in other countries were also in a position to offer more investment options or enhanced infrastructure to lure multinational corporations and new entrepreneurs, both foreign and Indian.

Bangalore has reached a stage in its growth where a new level of challenges face it and the entrepreneurs who may attempt to work there. As population continues to grow at a rapid pace – projections suggest a figure of seven million by 2010 – it is most likely that the economic growth necessary to support these people will have to come from the private sector, led by the kind of high technology companies discussed here. Their continued viability rests on improvements in infrastructure that will support current operations and enhanced functionality needed to co-operate in multinational co-operative settings. This infrastructure, in turn, ultimately rests on institutions and decision-making in the public sphere. The overall direction of planning is to place more responsibility for decision-making at the lowest operational level, a process we may describe as decentralisation or devolution – the most salient trend within management in the 1990s. This vector is apparent even within the Nagarpalika Act, which visualises local bodies at the ward level directing public investment and planning. Private enterprises will need to become more active at these local levels in providing inputs for their own services and infrastructure, and there are numerous examples in the Bangalore region of companies that have taken initiatives in their neighbourhoods with excellent results. Operating at the local level, however, is not sufficient for dealing with larger issues of regional planning, water and power, the allocation of space, and equity. These decisions require input within the larger institutional structures of municipal, district, and metropolitan councils, and are thus political issues.

Notes

[An earlier version of parts of this article is 'High Technology Entrepreneurship and Development in Bangalore, *Management Review*, 9 4 (October-December 1997), pp 85-96]

1 The voluminous literature on the Bangalore 'Silicon Valley' phenomenon dates back to the late 1980s and shows a remarkable durability in business publications Usually this literature lists the Indian Institute of Science and a few other research establishments, refers briefly to some public sector units, and then concentrates on multinational software outsourcing Typically there is then a critique of the environmental and lifestyle changes occurring in the 'Garden City' Lately, some foreign sources from the US have voiced a certain anxiety concerning the long-term impact of competition from Bangalore and India as a whole For a representative example, see Shirin Madon, 'Information-Based Global Economy and Socioeconomic Development: The Case of Bangalore', *The Information Society*, 13 (1997), pp 227-43 Yasmin Mahmood 'India's Silicon City', *Aramco World*, November/December 1997, pp 37-42, 'Hartetest im Paradies', *Der Spiegel*, 40 (September 29, 1997), pp 129-38, Edward Yourdon, *Decline and Fall of the American Programmer*, Englewood Cliffs, Yourdon Press, NJ, 1992, pp 279-312, William Wolman and Anne Colamosca, *The Judas Economy: The Triumph of Capital and the Betrayal of Work*, Reading, MA. Addison-Wesley, 1997, pp 83-106, Bob Davis and David Wessel, *Prosperity: The Coming Twenty-year Boom and What It Means to You*, Random House, New York, 1998, pp 218-17.

2 We should remember, in all these discussions, that the informal economy of the city probably employs larger numbers of workers than all formal sectors combined, although the value of its output may comprise a small percent-

age of the city's overall output. See P Thippaiah, 'Informal Sector and the Urban Poor in a Metropolitan Area: A Case Study of Bangalore', PhD dissertation, Bangalore University, March 1993.

Bharat Electronics 13,829; Bharat Heavy Electricals 4,314; Hindustan Aeronautics 42,389; Hindustan Machine Tools 5,434; Indian Telephone Industries 16,448 (Government of Karnataka, *Bangalore Urban District Industrial Directory*, Bangalore: General Manager, District Industries Centre, Bangalore Urban District, 1991).

Information for this section comes from the following documents published by ITI: *ITI 44th Annual Report 1993-94*; *ITI Limited 46th Annual Report 1995-96*; 'ITI Profile', 1997. Additional information comes from an interview with Sira G Rao, Director, Bangalore Complex, ITI, on January 12, 1995.

Shiv Visvanathan discusses cases in the 1960s and 1970s of technology transfer involving ITI with foreign firms instead of co-operation with the Indian government's National Physics Laboratory (*Organising for Science: The Making of an Industrial Research Laboratory*, Delhi and Oxford University Press, New York, 1985, pp 215-22)

Dilip Subramanian, 'Bangalore Public Sector Strike, 1980-81 A Critical Appraisal', *Economic and Political Weekly*, April 12, 1997, pp 767-77; April 19, 1997, pp 843-53.

Rajendra Prabhu, 'From Gloom to Glow', *Telematics India*, January 1997, p 54.

Sreya Yogendra Urs, 'ITI Draws Up a Survival Strategy', *Business World*, May 3-16, 1995, p 63

S S Motial, 'Redefining the Role of Public Sector Undertakings The Case of ITI', *Management Review*, 9.4 (October-December 1997), pp 29-35

The information on Namtech comes from a tour of facilities and an extended interview with Padman G Nambiar, managing director of Namtech Systems on December 5, 1994. Meanwhile, K P P Nambiar was pursuing his own business ventures, including a memorandum of understanding with the government of Kerala to establish a 500-megawatt power project for Rs 1,500 crore, through a new company, Kannur Power Project (KPP), in co-operation with Tata Consulting Engineers (*Economic Times*, April 5, 1995, p 13)

Sources for this section include the following Infosys publications. *Infosys Technologies Limited Annual Report 1994-95*; *Infosys Technologies Limited Annual Report 1996-97*; 'The Mobius Handshake: Software Solutions that Endure', 'Offshore Software Development Centers: A Boon for the Customer'; 'Client/Server Applications: The Infosys Expertise'; 'Into the Year 2000... Without a Hitch'; 'Websetu Suite of Products'. Additional information comes from the Infosys home page on the World Wide Web (www inf com) and from an interview with N R Narayana Murthy, chairman and managing director, Infosys Technologies, on July 24, 1997.

The package was implemented by the Global Trust Bank, ICICI Bank, State Bank of Mysore, and the Canara Bank in 1993 in its first totally automated branch in Bangalore. See Asha Rai, 'Infosys Technologies to Focus on Object-Oriented Systems for Growth', *Economic Times*, January 19, 1995.

These included the Services Management Concept (SMC) using distributed databases; SPEEDI sales force automation tool; SALES-COM sales compensation software; XPD2 system for ordering, shipping, and billing; ADAPT for equities trading; NICE for provision of a Windows interface for point-of-sale terminals; and WORKFLOW for workflow automation.

15 K C Krishnadas, 'Infosys Finds Future in Value Addition', *Economic Times*, August 27, 1994; 'Infosys Plans Strategies for Future Operations', *Economic Times*, May 12, 1995.

16 K C Krishnadas, 'Infosys to Pull out of Joint Venture in US', *Economic Times*, May 9, 1995.

17 'Infosys to Be Nordstrom's Off-shore Software Development Partner', *Economic Times*, February 11, 1995.

18 Information for this section comes from interviews with N V Satyanarayana, managing director of Informatics, on August 19, 1994 and July 25, 1997, and a visit to the Bangalore offices of Informatics on October 29, 1995.

19 'At the Helm: Helping Corporate Heads Hit the Right Note', *Times of India*, September 9, 1989.

20 Srinivasa Prasad, 'Information Shops Keyed Up', *India Today*, April 30, 1986.

21 This project revealed interesting views of India's position and Bangalore's position in India. Out of 1,60,000 companies listed, Indian companies amounted to 18,707, including 6,448 exporters. A citywide survey of exporters carried out by Informatics revealed 2,391 in Delhi, 1,453 in Bombay, and 116 in Bangalore ('DIALOG Database Provide [sic] Information on Indian Companies', *NISSAT Newsletter*, July-September 1991).

22 Dialog, based in Palo Alto, California, took over Datastar in March 1993. The latter began in Switzerland in 1981 and offered more than 250 databases, especially strong in European trade and industry, biomedicine, pharmaceuticals (*U & I: A Newsletter from Informatics*, 1: July 7, 1994).

23 N Seshagiri, I K Ravichandra Rao and N V Satyanarayana (ed), *Database Production and Distribution: Resources, Technology, and Management*, Tata McGraw Hill, New Delhi, 1993.

24 M M S Karki, 'New DST Projects on Databases', *SISCOM*, 10:6-7 (June-July 1990).

25 'Tendering Global Access', *Business World*, February 27, 1991; 'Informatics' Database Concept', *Dataquest*, May 1991; 'Foreign market intelligence from Informatics', *The Hindu*, July 25, 1991; 'Informatics edges out DBS in race for Decta tie-up', *Indian Express* Bombay, November 1, 1991.

26 *U&I: Informatics News*, 3:1 (January 1996).

27 V M Jaikumar, 'Starting a fresh dialog', *Economic Times*, May 29, 1991

28 'Informatics (India) ties up with Faxon of US', *Financial Express*, September 26, 1993; 'Informatics Teams Up with Faxon', *The Hindu*, October 2, 1993; 'Piecing Together the Best In Information Products Worldwide', Faxon Informatics, Bangalore, 1993

29 'Now Access On-Line Global Databases', *Computers Today*, September 1989; V M Jaikumar, 'Starting a Fresh Dialog', *Economic Times*, May 29, 1991.

30 'We Access Databases', *Business World*, July 4-17, 1990.

31 'Data-Base search centre opened', *Indian Express*, September 23, 1989.

32 N Raghavan, 'We're Too Obsessed with Information Technology', *Deccan Herald*, January 13, 1992; Ibrahim Ahmad, 'Databases: A New Opportunity', *Dataquest*, August 1993; S Jayaraman, 'Facts at Fingertips', *The City Tab*, June 10-16, 1990.

33 'Databases on a Silver Platter', *Computers Today*, September 1988. During this period Informatics was also exploring the idea of producing CDs in their own facilities in order to capture and market Indian data. For this purpose the office in Bangalore was using a PC with scanner and a mastering machine (imported for Rs 2 lakh) to digitise business directories and newspapers.

34 The CD business regularly led to conflict with Indian government policy. When Informatics first brokered provision of CDs from overseas, the products were sent directly to consumers who had to pay customs duty. Officials were questioning whether Informatics was breaking customs laws by doing this, forcing Satya to spend a day's travelling to and from Delhi. For years Satya pressed for the inclusion of CDs in the Open Licence Scheme for import instead of classifying them as restricted items

35 Until 1997 VSNL operated as an Internet service provider with its own pricing system, but over a two-year period had attracted only 30,000 customers in India. VSNL also retained sole rights to grant licences to independent Internet service providers for Rs 10 lakh annually, but the department of telecommunications also required a licence fee for Rs 25 lakh. Under these conditions, which provided minimal bandwidth for an up-front expenditure of about $1,00,000, it was practically impossible for private providers to operate, and most Indian home pages were located on computers outside India.(*U&I: Informatics News*, 4:2-5 February-May 1997).

36 The information for this section comes from 'High-end Technologies, for High-End People', Bangalore: Texas Instruments, 1994; 'Texas Instruments (India) Private Limited Fact Sheet' (1994); and an interview with human relations officer Kumar at the Bangalore office on October 28, 1994.

37 Information for this section comes from several interviews with John Pinnis, managing director, in November 1994, and with Denis McGee, managing director, June 10, 1997. 'BANC: Global Banking Software', Bangalore: Index Computing, 1994, *Annual Report 1991-92*, Bangalore: Index Computing, 1992

38 'ANZ Banking Group sets up software unit in City', *Deccan Herald*, December 6, 1989, 'Index Computing inaugurated', *Economic Times*, December 6, 1989

39 'Index Computing goes on line with worldwide data network', *Economic Times*, December 8, 1990.

40 See also discussions of this viewpoint in 'Bangalore boom goes bust with power cuts', *Times of India*, Bombay, November 13, 1995, 'Bangalore: Going Bust.' *Outlook*, November 22, 1995, pp 51-55.

41 See A Ravindra, *Metropolitan Bangalore A Management Perspective*, Times Research Foundation, Calcutta, 1995, *Urban Land Policy. A Metropolitan Perspective*, Concept, New Delhi, 1996.

42 Bangalore Development Authority, *Comprehensive Development Plan Report*, Bangalore: Bangalore Development Authority, 1984; *Bangalore Development Authority, Comprehensive Development Plan (Revised) Bangalore - Report*, Bangalore Development Authority Bangalore, 1995

43 Bangalore Metropolitan Region Development Authority, *Structure Plan for Bangalore Metropolitan Region*, BMRDA, Bangalore, 1995

44 Samuel Paul, '*A Report Card on Public Services in Indian Cities. A View from Below*', PAC Research Paper No 1, Public Affairs Centre, Bangalore, 1995.

45 Imtiaz A Shariff, 'BDA changes strategy and goes high-rise', *Economic Times*, June 4, 1995.

Suicide Deaths and Quality of Indian Cotton

Perspectives from History of Technology and Khadi Movement

C Shambu Prasad

The suicide deaths of farmers is a failure of agricultural science and the historical nature of the crisis needs to be appreciated. This paper seeks to retrace the route by which the present connections between Indian cotton and the mechanised textile industry were first established, a direction that has led to the present crisis on the fields of the cotton farmers. It also explores the alternatives in the khadi movement which with the aim of reintroducing spinning to the masses had to look at varieties of cotton suited for home-based production and evolve tools for use in the movement.

THE large-scale suicide of over 300 cotton farmers in Andhra Pradesh this agricultural season point to a crisis in the sustainability of cotton farming. One needs to go beyond analyzed causes like the failure of extension mechanisms, the unavailability of easy credit and the specific conditions of Andhra Pradesh, to understand the reasons for cotton becoming a highly risky and unsustainable crop. A longer-term view of the situation has to appreciate the historical nature of present day cotton farming and the concomitant loss of autonomy of farmers over what they are growing. The recent deaths of cotton farmers in Vidarbha, the shift to traditional varieties in north India, and the earlier event of suicides of farmers in Guntur and Prakasam districts in 1986-87, together with the present plight of the Andhra farmers, all point to a larger crisis in cotton farming that is systemic and not isolated.[1]

Despite repeated failures the cotton crop today requires high levels of pesticides and irrigated water. Although recent studies on the farmers suicides have pointed to the dependence of farmers on pesticide dealers and the increasing expenditure on irrigation, they have assumed these as inevitable for the crop.[2] The suicides point to a need for a cotton crop that would minimise the risk to the farmer and ensure sustainability for both the grower and the soil. There is therefore a need to reopen the debate between American and 'desi' varieties of cotton in the light of the well-known sturdy and pest resistant nature of the desi varieties. The agricultural establishment today grudgingly accepts the sturdiness of indigenous varieties, as is evident from the recent move to grow traditional varieties along the Indo-Pak border to prevent pests from entering India. This action however falls short of questioning the farming practices within India, where hybrid and American varieties dominate.[3] This paper looks at the history of cotton farming in India to examine the reasons for the neglect of desi varieties of cotton and thereby attempts to challenge its 'inferior' status.

Spinning in India is concentrated in a few centres like Coimbatore, Mumbai and Ahmedabad and the cotton trade has been following the pattern of trade laid down in the 18th and 19th centuries. The international trade determines prices and varieties grown, the benefits of which rarely accrue to farmers. Better returns for the farmer is possible if there exist decentralised cotton spinning technologies for value addition at the village or small towns. Alternative routes of production that could, by linking household textile production, local yarn spinning and the growing of cotton in small farms, perhaps provide the key for sustainable cotton farming. The needs of the mills today are incompatible with the nature of production on small farms. This paper seeks to retrace the route by which the present connections between Indian cotton and the mechanised textile industry were first established, a direction that has led to the present crisis on the fields of the cotton farmer. It also explores alternatives in the khadi movement.

There are three parts to this paper. In part I, we look at how the nature of cotton changed, with the change in the use from a raw material for a technology that could adapt to the widely differing qualities of local cotton, to one that had to service the machinery of the English industry and its production system, and how in this process Indian cotton earned the name of 'inferior' cotton. The reasons for the 'inferiority' of Indian cotton are then identified. In part II, the question of quality is explored in greater detail. We cite several instances from the history of cotton growing in India to challenge the notions of the poor quality of Indian cotton. We question the universality of the term, and hope to show that it has diverse meanings for machine made and hand made production, or export-trader based production and decentralised operations for local use.

In part III, we look at the khadi movement during India's freedom struggle, as a contemporary and alternative technological response to the developments in the modern textile industry. The khadi movement had consciously rejected some of the parameters of modern textile technology and thus provides an excellent case where some of the dissenting views on quality of Indian cotton in the accounts that were mentioned in parts II and I were actually applied in practice. The movement, through its scientists like Maganlal Gandhi and Dadabhai Naik, not only posited different definitions of quality more suited to the specificity's of Indian manufacture, but showed how a different science was possible where the field was on par with, even substituting, the laboratory, and where experience and memories counted as much as experimental facts.

I

The history of cotton growing in India since 1790, when Bourbon, the first exotic variety was introduced, can be seen as essentially one of the replacement of indigenous varieties of cotton, which had been carefully bred over centuries to provide the world's best cloths, by American varieties, to suit the emerging mill production of textiles in Lancashire. Consequent to the poor understanding of the difference of the two types of cotton, the indigenous was branded 'inferior'. While the 'deindustrialisation' caused due to colonial rule has been well researched, there is little understanding of the technical dimensions of this process. The cultural specificity of technological choices become clear if one examines the history of cotton growing in modern India and analyse how a technology that evolved over generations of practice was branded 'inferior' and replaced by another whose

technological merit remained unquestioned.

Cotton in India, unlike in other parts of the world, came into general use as clothing for rich and poor at an early stage in history. Cotton cloth reached a stage of perfection that made Indian textiles known all over the world and the textile industry gave employment to vast numbers of people at each stage of production. Different varieties were grown in different parts of the country, each being suited to the local soil, water and climate. While the cotton of Gujarat had long staples, the Dacca cotton was short-stapled, and yet it produced the finest fabric ever made. Since the cotton plant was so intimately related to the lives and occupations of so many people, a great deal of care had been given to their particular qualities and characteristics. Years of careful seed selection resulted in the improvement of the variety for the particular characteristics that were required. Length of staple, which today is the most important factor in deciding 'quality', was not important, in fact was even a hindrance when cotton was carded with a bow with longer staple cottons creating problems in processing by wrapping around the bow.

Europeans, in contrast, got involved in cotton as traders of cloth in the 17th and 18th centuries. They dressed in wool and linen, both of which can be converted from fibre to fabric by fairly simple processes. Their knowledge of cotton processing and its various techniques was limited. They were thus more in need of an 'industrial revolution'. Britain that was in the forefront of the industrial revolution initially got its cotton from Levant and West Indies for the most part of the 18th century. There was a spurt in cotton imports of Britain from 1780 onwards due to supplies from America and India, with America constituting the lion's share of Britain's imports of cotton thereafter. America became the biggest supplier of cotton to Britain from the 1800s and this continued till the 1850s when supplies were discontinued briefly due to the American civil war.

Cotton was not native to America. It was after nearly 150 years of constant trials and selection that cotton found its roots in American soil. Once it became acclimatised in the southern states there was a revolutionary change in America's fortunes. Initial expansion of cotton cultivation in the US began in 1786 with the introduction of Sea Island cotton into Georgia from the West Indies. By 1792, Sea Island cotton filled all the coastal areas of South Carolina and Georgia.[4]

Along with the possibilities of large quantities of cotton was the invention of machinery for cotton processing. Arkwright's spinning frame in 1769 increased the spinning potential of small manufactures. In the US the invention of the Whitney gin, in 1793, solved an important bottleneck in the speedy separation of fibre from seed. Of interest though is the fact that all the machinery was developed with just the American cotton. Length of staple thus became an important criterion for reasons of convenience of operation by machine and had little to do with the quality of fibre.

The over reliance on American cotton was of concern to traders in the 19th century and the manufacturers of Lancashire turned to the fields of India to increase supplies. The traders were not sufficiently aware of the situation in the fields of India and of the cultivation practices of Indian cotton, and presumed that they could replicate American conditions in India. But there was a huge difference between the virgin soils of the North American continent, and the soils of India, which differed widely, from place to place, needing regular manuring to maintain their fertility. Indian cottons were bred to withstand the vagaries of the variable Indian climate and cultivation practices were honed to minimise the cotton plants' vulnerability to pests. The traders were oblivious to these niceties; they wanted quantity production conveniently delivered at central points, to be conveyed overseas as efficiently as possible. For this purpose, the Indian varieties and trade practices were unsuited and so were branded 'inferior', and a systematic process of change initiated to mould them to the new demands. It was the trader's initiative to introduce new technologies, the ginning mills and baling machines.[5] The traders felt that large-scale import of American seed for trials in India and improvement in irrigation would help improve supplies from India. They also wanted the government to invest in other public works like railways and water carriage facilities to assist speedy transportation of cotton.

The government in its policy followed the demands of the traders and attempted to improve the position of cotton supplies by: (a) introduction of exotic seeds that would give high yields; (b) establishment of government farms to 'prove' superiority of exotic varieties and cultivation practices; (c) despatch of planters from America to introduce better cultivation practices; (d) introduction of machines for cleaning and pressing of cotton; and (e) Investment in public works for transportation of cotton to the ports and irrigation for increasing the yields.

Several reports were made on the subject of cotton growing in India to increasing supplies from India and removing constraints. Most were from government officials within specific areas such as the reports on the three presidencies, or on the Central Provinces and Berar, a major cotton growing area, where a cotton commissioner was appointed by the Manchester Chamber of Commerce. There were also reports and letters from traders in Britain, and cultivators – both Indian and British, as well as opinions of botanists. These sources have been used together for this section on history of cotton growing. We now look at some of the impediments identified that came in the way to see how many of these reflected on the quality of Indian cotton.

Supplies from India

Despite active governmental intervention, supplies did not increase as per expectations of the trade circles causing a lot of anxiety. Traders' reports and the lobbies were quick to identify this with poor infrastructure, namely, irrigation and transport. Indian cotton took the same time to reach the ports from the interiors as American cotton took to reach Lancashire.[6] They lobbied for railways for speedy transport and introduction of machines for ginning and baling. The railways would also reduce the adulteration of cotton in their opinion. The systematic adulteration of cotton at all stages on its route to the port with mud, sand, stones and water caused the cotton with dirt that as was as high as 25 per cent.[7] These reports did not look closely at the internal structure of cotton growing and textile processing.

Cultivators, both Indian and foreign, who looked at it closely however arrived at different sets of reasons. Primary among them were the poverty of the cultivator and the repressive rates of taxation. The high land tax came in the way of cotton growing, which in places of Gujarat were as high as 50 per cent of the produce.[8] Shamrow, a cotton planter from Dhoolia, found little reason for the ryot to pay heed to the crop that he had no say on. The cotton was left unattended in case the government 'kist' was not paid and deteriorated in quality produce.[9] Botanists who had experience of Indian agriculture and soils, also concurred with this view. In an evidence to the House of Commons Committee they had stated that the inferiority of Indian cotton to American cotton, was almost entirely owing to the neglect

of the cultivators. They did not see any inherent defect with Indian cotton in relation to the American.[10] In a few places where the ryot had more freedom his profits were better. Of the 13 districts on the Madras coast, only Visakhapatnam and Ganjam districts showed good profits, the reason being that the land there were under native chiefs.[11]

The poverty of the cultivator was in no small measure abetted by taxation that affected all aspects of indigenous cloth manufacture. This was in keeping with Britain's policy of converting India into a source of raw material and a market for finished products. The repressive regime of taxation made processing of Indian cotton prohibitive. Indigenous processing techniques, which were crucial, for the maintenance of quality of cotton came under strain and were eventually replaced by the faster, though qualitywise dubious, machines from the west. Brown, a planter who spent several years in the Madras presidency, describes it poignantly thus:

> The story of cotton in India is not half told: how it was systematically depressed from the earliest date that American cotton came into competition with it, about the year 1786, how for 40 to 50 years after, half of the crop was taken in kind in revenue, the other half by the sovereign merchant at a price always below market price of the day, which was habitually kept low for the purpose, how the cotton farmer's bullocks were taxed; the 'charkha' taxed, the bow taxed, and the loom taxed; how inland custom-houses were posted in and around every village, on passing which cotton, on its way to the coast for sale, was stopped, and like every other produce taxed afresh; how it paid export duty both in a raw state, and in every shape of yarn or thread, cloth or handkerchief, in which it was possible to manufacture it.

Brown commented that it was only in 1862, for the first time in 64 years that the annual tax on the loom was repealed.[12]

The cultivators felt that due to lack of incentives and the change in production system the cotton quality also suffered through poor picking and cleaning. The demands of the export market, however, did not allow for different pickings and all picking was done only once. In the absence of incentives for the ryot to improve the crop, it was often picked late leading to a fall in quality.[13] The care that went into the various processing stages for the indigenous industry were not complied with when there was a need to serve an external market. The traditional bow rendered the cotton as free from impurities as the most complicated machinery in England. As there were no incentive for gathering clean cotton the cotton that reached Britain was not bowed and was dirty.[14]

We thus see that in contrast to the traders' viewpoints that left the questions of prevailing trade practices unquestioned and instead blamed Indian cotton and cultivation techniques, the cultivators and botanists were of the opinion that no change was possible without improving the position of the cultivator and reducing taxes on the Indian processing implements. Another reason for poor supplies to Britain from India was the existence of extensive and strong local markets. In Punjab, even as late as 1884, when machine made goods had made inroads into the local market, 84 per cent of the cotton yield in the province was locally consumed.[15] Correspondingly the demand for American cotton amongst the indigenous manufacturers was poor. Colonel Skinner, a successful planter in Bengal had to abandon cultivation of American cotton because the produce did not fetch more in the Calcutta market than native cotton.[16]

None of the constraints outlined above point to any fault with the Indian cotton. It was to this that James Dunsmore, a retired cotton merchant, tried drawing the attention of the government. He wrote a series of letters between 1823 and 1827, on the issue of Indian cotton to the court of directors and brought to the attention of the government the essential difference between the Indian and American varieties on the question of quality, a difference that trade circles were unaware of. He contended that the superiority of Indian fabrics was as much due to the cotton as from the prevailing view that placed it on the skill of the Indian weaver, a view later confirmed by Hamilton in his study on the Dacca muslin. He argued that the soil and climate of most parts of British India gave a superiority to the quality of Indian cotton that no cotton wool of other countries could equal.

He remarked insightfully that the spinning machinery had been invented by people who had only seen American cotton, and so it was not suited to Indian varieties and wondered why the manufacturers using Indian cotton wool should not have discovered that its quality was both distinct and superior to their earlier ones. Dunsmore observed that "the manufacturers have no views beyond immediate gain, and in general want no change in the material because it would occasion a heavy outlay in new machinery". Dunsmore pleaded with the government to intervene and correct its error in policy but his letters remained unacknowledged.[17]

Cultivators who spent several years in India in cotton growing echoed Dunsmore's feelings on Indian cotton. These voices of dissent were ignored in government policy that favoured exotic seeds. We now look at the success of exotic seeds and experimental farms.

Exotic seeds and government farms with American cultivation practices did not work out in India. In 1816, the Bombay government in a letter to the court of directors, reported that the crop of Bourbon cotton had failed on the same spot where the indigenous plant produced plentifully. By 1837 the farm at Akra was considered a failure by the government's own assessment.[18] Fischer reporting on these experiments at Madras presidency considered "the American plant a delicate and unprofitable one" and not as productive as the common country or indigenous cotton. Gray, a planter in Madras, remarked that "The indigenous plant of India will not thrive well on any land except denominated cotton soil, while on the same soil the plants of the western world invariably fail".[19]

The cultivators were more forthright in criticising the efforts. Shamrow pointed out that while the government and commercial agents reaped all the benefits, the farmer got little in return for his enhanced trouble and expense. In his scathing comments on the experimental farms Shamrow remarked that the government "lavishly wasted vast sums of money (on expensive model farms) upon the sheer chimerical suggestions of would-be amateur experimentalist, and ignorant imbeciles...They (the experiments) were for the satisfaction of government, only, so that my countrymen remain, as before, unenlightened."[20]

Wight commented in detail about the work of the American planters, two of whom were sent to Coimbatore. The experiment, which began in 1840, went on for 13 years. He observed that in three years American planters had completely exhausted the fertility of the soil by cropping it with cotton year after year, making it unworthy of gathering in the fourth and fifth years. At the end of the fifth year, the planters retired from the field altogether, confessing candidly that they could not compete with the Coimbatore farmers. The Coimbatore farmers at the end of their 13th year of trial, produced from American seed a cotton crop as good and as abundant as was produced by planters in the first year and at half the cost.[21] The experiments had proved that Indian farmers were in no need of tuition from

Americans. However, in the absence of a guaranteed price, they were reluctant to take up the cultivation.

Opinion against exotic seeds was common by the 1860s. However, when Rivett-Carnac was appointed the cotton commissioner of Berar and Central Provinces in 1864, his main task was still to introduce foreign staples. In experiments at Nagpore, Carnac found that none of the plants of the Egyptian or fresh New Orleans seed could weather the heavy monsoon, whereas the indigenous could. Having realised the futility of efforts with exotic seeds he went about improving the indigenous cotton. He popularised the Hingunghat variety amongst farmers and merchants and conducted exhibitions in the cotton heartland to show the possibilities of improving Indian cotton. There were over 300 specimens of cotton exhibited from all parts of India and the world amongst which the Khandesh Hingunghat cotton was declared best ahead of the sawginned Dharwar cotton of American seed.[22]

Degeneration and Neglect of Indian Cotton

With the decline of household spinning in India, both the growers and weavers of cotton became the clients of the intermediary spinning mills. The import of machine-made yarn into India broke the connection between the cultivation of cotton, the spinning, and the weaving. Cotton which had largely been grown for local use, began to be grown specifically for export, and numerous textile producing centres decayed. The export market completely transformed cotton cultivation in India by setting up new criteria of quality for cotton It was now for the needs of the machine rather than for the cloth that could be made from it, that the characteristics were examined. Though desi varieties were well-known to produce the finest cloth, they were unsuited to the new textile machinery invented in England. Hamilton commenting on the cotton of the Dacca muslin observed that despite the greater fineness of cotton produced near Dacca, the American varieties have a longer filament and are thus more fitted for European machinery.

The damaging effects on cotton cultivation through promotion of research for the sake of trade was recognised by the well-informed George Watt, the botanical advisor to the government, who observed that due to the prevailing trading policies the progression of improvement of the indigenous staple was deliberately stultified and the labours of centuries ruthlessly thrown away. The existing trade, he felt was aimed against all the good features of the indigenous fibre. "The retrograde traffic is directed towards attainment of high yield of a worthless staple".[23]

The change in cultivation practices brought about by the colonial government led to the deterioration and loss of diversity of some of the best native species. The cotton that made the famed Dacca muslin had already disappeared. Traditional seed selection, manuring and cultivation practices of desi cotton farming died out, and traditional long-stapled varieties like the perennials of Gujarat and Kathiawar, were replaced by inferior ones. Bani, the breeding stock from which the famed Hingunghat originated, was replaced by Jari or Varadi, high yielding but low grade varieties that could grow even on inferior lands. Middleton in his *Handbook on Cotton in the Bengal Presidency* considered the popularisation of Jari and Varadi a calamity and a dangerous rival to the finer varieties. These varieties when brought to a new locality had robust growths, matured early, and were prolific. Once established, however, they degenerated.[24]

Watt had estimated that by a proper selection of seed and its cultivation, the cotton crop could be improved by 50 per cent. This had been suggested by other botanists: In 1886, Trevor Clarke and Jones, the superintendent for farms in western India highlighted the importance of the 'pedigree' system for careful selection of the seed. Colonel Showers had earlier in 1865 made several recommendations for the improvement of the indigenous plant.[25] Contrary to informed opinion in scientific circles on improvement of quality through changes in agricultural practices and introduction of quality indigenous seeds, the government sought to improve the quality of cotton mainly through legislation like the adulteration law of 1929 with a penalty of two years rigorous imprisonment for adulteration, that became more stringent with the Adulteration Act of 1863.[26]

By the time the government had realised the need to improve Indian cotton much damage had been done. Mollison, the inspector general appointed to improve Indian cotton, reported, in 1903, little practical results in improving the cultivation of Indian cotton. The reason being that the existing knowledge on indigenous varieties was poor and incomplete. He recommended that a survey be conducted of the existing cottons of India based on the suggestions of George Watt and that seed farms be established all over the country. Seventy-seven varieties were examined as a result at the three farms in the presidencies and their characteristics observed over a period of time. The results showed that the indigenous varieties had suffered deterioration mainly because of continued use of the same strain over generations.[27]

The scientific interest in the early part of the century was however not pursued in the field. The unhealthy practices of cultivation and trade continued unchecked. Though there was an increase in acreage between 1899 and 1939 from 13.8 million acres to 24.2 million acres, the quality of cotton grown was poor. The textile industry was undergoing rapid change. Britain lost its supremacy in textiles. Between 1885 and 1891, Continental Europe imported more cotton from India than Britain. Japan and the Indian mills were also serious competitors to the produce of Indian cotton. The Indian mills were yet to establish themselves and were concentrating on coarse manufacture and were not particular about the quality of cotton.

One would have expected a change in trend after India's independence and that the unfinished agenda of improvement of Indian cotton taken up vigorously. On the contrary, in a misplaced national zeal for self-sufficiency in long staple varieties, a crisis caused in part by partition which separated cotton growing areas from Indian mills, post-independence policies were shaped as a result directed towards import substitution of long staples. The focus was on high yielding varieties in irrigated areas in rich alluvial soils with large inputs of fertilisers and pesticides. Consequently there has been a shift towards hybrids and hirsutums because the desi (indigenous) varieties were unsuited to increased yields through artificial inputs. In 1947, 97 per cent of production was from indigenous varieties of the arboreum and herbaceum varieties. This decreased to 37 per cent in 1990, while that of hybrids and hirsutums went up from 3 per cent to 63 per cent.[28]

These changes were not due to market demands but due to a deliberate policy by the government that favoured certain varieties. A study team on cotton constituted by the National Commission on Agriculture envisaged a gradual increase in lower medium count but no increase in production in coarse counts for 25 years. It is thus little wonder that the price of lower counts of cotton have witnessed the steepest increase in price in recent years much to the distress of millions of handloom weavers making cloth for everyday use in local markets.[29]

The research conducted since independence has been on the same principles and

following the same direction as that established first by the East India Company and continued by the colonial government. Both policy and research favour the cotton merchants and big mill owners, at the cost of the small farmer and the weaver, or even the user of the end product, the cloth. The cotton, which now gets a high price, is the variety suited to the machine, not that which gives good cloth. Once it reaches the spinning mill it is made into yarn on the same machines that were developed from the early ones and intended for long staple cotton. There has been no research into different machines suited to desi cottons.

The present suicides of cotton farmers are directly linked to the policy of the government to favour those varieties that were amenable to huge inputs of irrigation, fertiliser and pesticides. It is becoming increasingly clear that such policies are counter-productive and unless there is a fundamental questioning of the basis of these like the inferiority of Indian cotton, these trends are unlikely to be reversed. A techno-historical audit of cotton technology can help us examine these axioms and replace them with others consonant with sustainable cotton farming. In the following section we critically examine one such axiom, namely, that longer staple length implies good quality cotton, an axiom on which Indian cotton has been branded inferior.

II

Textile Technology and Quality of Indian Cotton

Textile science today equates length of staple as determining the quality of cotton. Such a quality consideration fails in the case of the Dacca muslin, which produced the finest cloth in the world from the shortest staple. The Ponduru spinners of Srikakulam to this day are able to spin yarn as fine as 100 counts and above from cotton that is of short staple. These unexplained 'anomalies' in textile science raise some questions. Was the shortness of staple a limitation for mill machinery to operate? If so, what were the pre-spinning operations that were responsible for the high quality of yarn of Indian fabric of the past? Are they being served by present-day machinery? Isn't there a need for different quality markers for hand made and machine made goods? To answer these questions we look at some evidence from textile history on the quality of Indian cotton. This will help us examine if there is an incompatibility with Indian cotton and mill technology today and between American cotton and Indian hand techniques.

That Indian cotton could produce high quality yarn was a fact not unknown to the British. The cloth manufactured from the thread of Nagpore cotton was reported to last long, and to bear washing well. Hingunghat cotton was celebrated for its cleanness, strength, length, brightness, evenness and silkiness.[30] George Watt commenting on the peculiarity of the Dacca muslin cotton believed that the manufacturers of machinery had a lot to learn from the cotton and spinning techniques employed. He attributed the peculiar excellence of the Dacca muslin to its ability not to swell on bleaching.[31]

Several studies were made on Indian cotton in the 19th century in Britain and they give us some idea about the particular characteristics of Indian cotton. Clare's study comparing the threads made from Indian and American cotton through a microscope revealed that yarn made out of Indian cotton was much finer than the American. "It required, at least, four such threads of hand spun British India cotton twisted together to make one thread equal to the finest machine spun cotton in this country". He observed that the presence of moisture while spinning was responsible for the differences in appearances between Indian cotton and others. The hand-spun fibres had better adhesion and were thereby stronger and finer than machine made yarn. Briggs, commenting on Clare's and Wilson's studies, remarked that the "facts brought to light by means of these microscopic observations afford an idea of the delicacy of Indian cotton beyond anything of which we could have any conception". However he was quick to add, in keeping with the thinking of the times, that independent of fineness of staple, length of staple was of the highest importance in trade circles.[32]

Indian cotton today is used only for spinning lower counts so much so that desi cotton has become synonymous with coarse cloth. This was not the case before the advent of modern machinery. It is on record that yarn up to count 400 was produced. In 1868, when British goods and yarn had made sufficient inroads into the local markets and the spinning industry had almost died out in most parts of India, Rivett-Carnac was still able to demonstrate yarn of count 244 spun by the Dhers in one of his cotton exhibitions.[33] Indian cotton could also take dyes better. A calico printer of fine Swiss cloth realised that his colours were brighter when he used east Indian fabrics than British. Dunsmore attributed this to the presence of essential oils in Indian cotton that the American cotton did not have. Tests with indigo indicated that Indian yarn took colour better.[34]

During the 1860s when the British authorities were concerned about the lack of demand for British goods in the Indian market, they commissioned a survey on the slackness of demand for European goods. The survey report revealed that "Indian cloths contained more cotton and less sizing material than their imported substitutes, and were, therefore preferred. The native article was more durable, thicker, warmer and better suited to the wants of the people in the area."[35] Indian cotton has a larger diameter to compensate for the shortness of staple. The greater elasticity of Indian cotton provided for a cavity for easy passage of air making cloth from Indian cotton more absorbent.

Despite these attributes one of the reasons for the British disfavouring Indian cotton was because the cotton that arrived in Liverpool from India came in a highly contaminated state. When this cotton was processed in Britain injury to the staple was high. Whitney's saw gin was used for ginning and was seen as an improvement over the roller gin because of speed of operation. It was on account of the saw gin that length of staple became important. The longer the staple the more was the chance that even if it broke in processing the remaining pieces would still be long enough to engage in the machine. In contrast, the superior qualities of Indian cotton – fineness, silkiness, softness, durability and absorbency – are enhanced by low speed operations. Arkwright, the inventor of the first spinning machine, however knew only of long-stapled hirsutum of America. It is from this device that all modern spinning machinery is derived. 'Quality' in cotton fibre has thereby become dictated by the limitations of the spinning machine. As modern machines work at higher and higher speeds they need longer and stronger fibres, but the action of the machine itself weakens the cotton. All these qualities are sacrificed to the needs of a particular design of the spinning machine.[36]

The incompatibility of Indian cotton with machine processing in Britain becomes clear in the cotton reports of 1834. Several tests were performed on Indian cotton and Indian cotton was injured in almost all the cleaning operations. A closer look at the tests show that there was least injury to the staple when the foot roller was used, more injury when the charkha (hand gin) was used and maximum injury when the saw gin was used. When the

speed of the saw gin was reduced from 210 rpm to 90 rpm, the injury to staple was considerably reduced. This points to the fact that it was possible to devise machinery to run at lower speeds to suit Indian cotton. However, there was no attempt made in this direction.[37] In India modern ginning affected traditional cotton growing practices. These gins mixed different cotton varieties, good and bad seeds, serving as a disincentive for the farmer to grow good cotton as his best seeds were mixed up with inferior ones and he got an uneven seed mix in return. Watt pointed out that as a result, the Indian stock of cotton got degraded or equalised. He remarked that "the specialisation of centuries of natural selection was being rapidly effaced by this new phase of commercial production".[38]

The need for a different kind of machinery to suit the specificity of Indian staple received little attention. There was no substitute for the Whitney gin in India as late as 1860. It was only during the cotton famine that the court of directors declared an award of 100 pounds through the East India Association to stimulate mechanics to produce a suitable machine for Indian cotton. Of the few that finally worked, the Perker's gin was the most promising and initial tests indicated that it cleared five times more cotton than the native charkha without injuring the staple. It is not clear as to what happened to this machine. But the lack of reference to it in later texts indicate that the effort was discontinued.[39]

We thus notice that Indian cotton had several special attributes. It was more absorbent, more durable, took dye better, was capable of extreme fineness, had a lustre and was soft. On many parameters Indian cotton was more than comparable to the best cottons in the global market. Many of these attributes were enhanced by low speed processing, spinning, and weaving. The deterioration of quality in Indian cotton is thus also linked to the replacement of these techniques by faster machine made processes.

The attempt here is not to belittle any innovations that occurred in the modern textile sector but to point out that innovations are necessarily context specific. The kind of 'industrial revolution' that the indigenous industry would have undergone would have been of a vastly different nature. The machines and the modes of production would have perhaps been scaled down to suit the decentralised nature of production and the specific characteristics of Indian cotton. Quality would then have become intrinsic to the system instead of being imposed from outside. Quality in the Indian context would necessarily have looked into the quality of the linkages between the various parts of the whole rather than emphasising increases in productivity of individual parts of the industry.

The industrial revival of India that Gandhi sought for through the khadi movement in the 1920s had consciously rejected some of the established axioms of the textile industry. In introducing khadi, Gandhi and his followers were also attempting to establish a different textile science by placing faith in the axioms of indigenous cloth manufacture. The response of the khadi movement to colonial science and technology was not just a cultural response but also a technological response to the quality aspects of Indian cotton. The khadi movement sought to work out in the field the dissenting scientific agenda on the quality of Indian cotton outlined above. It is to such an indigenous industrial revolution that we focus our attention to in part III.

III

Science in Khadi Movement

Khadi (hand-spun, hand-woven cloth) needs to be resurrected today from its cliched usage of a symbol that got India its freedom. In the specific case of cotton technology khadi also has in it the seed of an alternative technological response to universalistic modern western science. By insisting on hand-spun yarn in decentralised manufacture Gandhi introduced a new dimension to the swadeshi movement. Swadeshi was no mere boycott of mill yarn but had to focus itself on providing a technology to rework a production system of decentralised cloth manufacture that had gone out of use. It meant replacing the inefficient processing techniques and wasteful transportation of cotton by techniques that could be done at the farm and cottage levels, and finally to varieties of cotton that would suit decentralised manufacture. Just as Indian varieties of cotton were unsuited to modern textile mills and caused injury of staple, American varieties of cotton were unsuited to the indigenous cottage mode of manufacture. The seeds of these varieties were too soft and would get crushed in the hand gins. It was thus not possible to conceive of an Indian swadeshi khadi movement with American cotton.

The khadi movement that started with the aim of reintroducing spinning to the masses had to look at the varieties of cotton suited for home-based production. The movement had its own laboratory, the Satyagraha Ashram, where tests on all aspects of cloth manufacture were conducted. Heading the technical department of the All India Khadi Board (later the All India Spinners Association) was Maganlal Gandhi who played a big role in providing the necessary technical inputs to the demand for khadi cloth created by the non-cooperation movement and the swadeshi vows. Maganlal and his co-workers had to set new parameters of quality cloth production that was to be experimented and validated at hundreds of production centres through out the country. They had to research, innovate, test and try out different types of tools for use in the movement. Experiments on growing of cotton varieties were carried out at the Ashram simultaneously with improved gins, carding bows, charkhas and methods of testing yarn.

The popular political journal *Young India* reported the results of the experiments on the cultivation of cotton through Maganlal's column, 'Khadi Notes'. Maganlal was not biased in favour of indigenous cotton varieties. He was attempting to grow high quality cotton for use in decentralised manufacture. Initially, the focus was more on care in the growing of cotton and proper manuring even through composting human excreta. His experiments and experiences soon led him to recommend growing hardy and resistant cotton varieties and also tree cotton in the backyards of peasants' homes. Maganlal followed up his insights on perennial cotton with the varieties of tree cotton that could be grown.[40] The Ashram began co-ordinating the supply of good quality seeds separated by the hand gin. The column soon became a forum to report the diverse varieties of cotton from places as far as Bengal and Karnataka. Science and khadi were very much part of the political agenda of the Congress and Congress workers were urged to bring all varieties of cotton grown in their region with particulars of soil, climate, rainfall, etc, for the annual khadi exhibitions during the Congress Plenaries.[41]

In his book *Charkha Sastra* (translated in English from Gujarati in 1924) Maganlal Gandhi mentions in detail the ways of examining good cotton and compares Indian cotton and hand processing with machine processes. Maganlal realised the important connection between hand spinning and growing of cotton and remarked that the extinction of the fine art of spinning "spelt the death of fine cotton growing in India". In acknowledging that the fineness of American cotton of 20th century was through "gradual improvement brought about by careful and scien-

tific cultivation" he was implicitly setting the research agenda for proper cultivation of cotton for India to recover her glory of the past. In the section 'Examination of Cotton' we find an elaboration of a different science that on the one hand acknowledges the effort of the scientific advances of the west, but on the other, argues for a different application of this science in another cultural and geographic context.[42]

Maganlal goes about his scientific experiments by first validating, through experience of use in the field, the Indian hand processing techniques. He affirms faith in the tools by arguing that the proper use of these could lead to good yarn.

> The yarn spun out of these slivers (of small carding bows) is so clean and strong that it surpasses superior qualities of even mill yarn. Cotton receives such a rough handling during the process of cleansing adopted in the mills, that it is found by scientific calculation to be losing 80 per cent of its vitality. If strong staple cotton is drawn out of the pods on the plants without allowing any dry leaves to intermix with it and is carefully ginned with a hand ginning machine and similarly carded, it would also yield very good yarn.

Maganlal then makes an important shift in the way this science could be validated by insisting that it is right at the farmer's fields, and not the laboratory, where the cotton is best examined. He says,

> It is not so easy to determine the quality of the cotton when it is ginned as when it is still adhering to the seed...The habit of observation is a most valuable acquirement of man as necessary for matters worldly as well as spiritual, and the examination of cotton contributes to its development in no small measure.

What is of interest here is the possibility of a science where universality is not in its repeatability in specific conditions but in the sense that every man could be a scientist without the need for expensive laboratories. A farmer examining cotton with care in his field was practising science on similar terms as a laboratory scientist or technologist.

'Examination of Cotton' reads like any laboratory manual.

> Take a small quantity of cotton. Grasp half of it in each hand and then divide it into two parts by pulling away the hands. If the sound (of separation) is dry and gritty, it means the cotton is strong and good. If low, it is the contrary. Sound varies directly according to quality.

Maganlal was quick to remark however that this seemingly simple test required practice that would make it an art.

> To be able to detect the differences in this sound requires almost the same capacity as is required for distinguishing the finest variations in a musical note.

He writes similarly on strength tests.

> To test strength one end is held by the fingers and then stretched. Their strength is seen by the resistance offered to strain. A long practice is necessary to learn to recognise their relative strength by this process. An aspirant for proficiency in spinning ought to be able to recognise the quality of cotton.

Maganlal in an innovative shift connects these processes with education and the political context of the times by suggesting that village schools be the 'model farms'.

> In villages a small cotton farm can be attached to each national school to facilitate the learning of this art. If the teacher has a taste for gardening, by his experiments he can improve the cotton cultivation of his village. What is done at enormous cost at the government farms can be done at a much smaller expense by our national schools. By paying taxes cotton cultivators and merchants are indirectly bearing the burden of the enormous expense of such farms. They could be paying a direct tax to the national schools of their own villages contribute to improve the art of spinning and be able in the near future to enjoy the sweet fruits of national welfare.[43]

At the more practical level he recommended steps for better quality of cotton and yarn that included field picking of cotton instead of pod picking, drying before ginning to prevent crushing of seeds and formation of weak fibres, and thrashing with a hooked stick to reduce ginning time. Drying he said was essential as improper drying can lead to seeds getting crushed. For best results he suggested that spinners take cotton direct from the fields, failing which they use hand ginned cotton and in the worst case machine ginned but unabled cotton. Baling according to him would make the thrashing insufficient and necessitate additional scrubbing making him to remark that "machine made slivers even if made from good cotton is inferior to hand made slivers as the vitality of cotton fibres is destroyed by 80 per cent in passing through various machines".[44]

Maganlal perhaps did more than any of the government scientists in the programme in improving Indian cotton varieties and reversing the trend in favour of American varieties for global trade. The Ashram had set the parameters for research in the movement by encouraging people to grow their own cotton even if it was just in their backyards. The Ashram also set the standards, by example, of the quality of yarns for hand spinning, and thereby, the methods of processing and care in cultivation of cotton. The khadi movement tried establishing its own norms of quality which while on the one hand was open to the question of diversity, on the other, allowed for the possibility of constant improvement through continued experimentation. Quality was not forsaken for greater production. In his notes Maganlal advised workers that the manufacture of strong and good khadi was more essential than increase in the quantity of production. He warned spinners against spinning yarn of high count but weak yarn. He would rather have the spinners spin lower count yarn superior to the mills. In Maganlal one finds a hard headed scientist for whom the fact that India possessed traditional knowledge of high calibre was not reason for elation, but rather, the fact of its extinction a case for serious research "to go deeper into these things and not assume it to be easy and simple". He urged Congress workers to involve themselves deeply into the art of cloth manufacture and take interest in all the processes, not just spinning.[45] Enthused by the atmosphere created by Maganlal and Gandhi, there were workers like Laxmidas Purushottam who took on experiments in the Ashram to "demonstrate that given good cotton and good carding, it was possible to draw fine thread that would beat the strongest mill yarn of the same count".[46] The continued production of khadi cloth started providing new insights and facts on indigenous processing techniques making Gandhi remark that, "machine ginned and machine pressed cotton loses its vitality and is more difficult to treat with the hand bow than hand ginned cotton".[47]

The Ashram was not averse to using modern textile testing apparatus if it suited their purpose.[48] What is of particular interest here is the process of scientific research that leads to different results based on fundamentally different axioms, in this case local production for use instead of production for export. Maganlal was no Luddite fighting American varieties of cotton. We find in his model of research a lot of importance given to field experiences. In his notes he does no more than report these experiences and the connections between cotton variety and the kinds of processing. The khadi movement thus shows a different relation between the centre of research and the place of application – the laboratory and the field. Research at the centre did not make for a universal validity of truth claims to be applied at the field, but on the contrary, the field worker had to do his own research and validate it locally. Conversely, the

'laboratory' (Satyagraha Ashram) was also to be involved in production making it sensitive to every crisis in the field. This is in contrast to the model of agricultural science prevalent today where despite large numbers of suicide deaths of farmers, the scientific establishment seeks to explain the crisis merely as failures of extension mechanisms or ignorance of the farmers. It does not see it as a crisis in agricultural science.

It is quite probable that the experiences and experiments of Maganlal could have, if continued and collated, provided fresh insights and newer theories on textile manufacture. However, the demands of the movement and his untimely death in 1928 ended a significant chapter in the technical history of the movement. Krishnadas Gandhi, the secretary of the All India Spinners Association (AISA), was later to remark in 1949 that no systematic efforts to research on cotton growing were taken up after Maganlal's death. Maganlal had by then established the qualities of home-based processing. The AISA planned a khadi museum in his memory, which would house specimens of the finest yarn, the various implements of manufacture of khadi from different parts of the country and a plot where experiments on cotton growing would continue. The AISA basing itself on his experiments and experiences in the field could by then confidently proclaim the superiority of decentralised manufacture and had established that "home-grown cotton which is well picked and which does not need to undergo the devitalising process of pressing enables the spinner to draw a stronger thread".[49] However it was not until Richard Gregg brought out his scholarly book on khadi in 1928 titled, *Economics of Khaddar* that these insights from the field were placed in the larger context of the debate between hand-based and machine-based manufactures.

Gregg and Khadi Science

Gregg, an American lawyer with experience in industrial labour problems, spent two years in the villages studying the movement and put together the insights mentioned above by connecting them with some scientific results from the modern textile processes. He embarked on a systematic analysis of cotton technology to place in perspective the possibility of fine and durable cloth through hand production.

Gregg argued that as no two fibres of cotton were wholly alike modern spinning practices required more elaborate processing of the fibre prior to spinning. Hand operation of yarn, on the other hand, allowed for the "sensitive touch and sight and discriminating judgment and skill of the worker to instantly change and adapt itself and the working of implements to the variations in the fibre." Gregg throws more light on the loss of vitality that Gandhi referred to by pointing to the inherently violent and inefficient methods in mill spinning. "Cotton for mill spinning needs to be cleaned, mixed, beaten, and drawn many, many times. The necessity for greater output from the machines results in all these processes being done at high beater and roller speeds in power ginning, enormous pressures in baling cotton and further violent, high speed beating in the opening or blowing process, high speed machine scutching and carding. All these bruise, scrape, strain, cut and injure much of the fibre, and waste much of it, and decrease the elasticity, strength and 'vitality' of what survives. The corresponding hand processes", Gregg observed, "were vastly more slow and gentle, and tended far more to preserve the qualities of the fibre."

Gregg pointed out that durability was not just through uniformity of fibre, but also of strength, pliability and elasticity. What Gregg alludes to is the fact that what the Indian mode of production lacked in at a particular stage or attribute in comparison to mill processes, was compensated for in a later stage or by other attributes. Comparisons at each stage on parameters set up by modern spinning processes would disfavour Indian cotton and processing techniques. However, if a comparison was made of the cloth as a whole then Indian hand spun cloth was more durable. Thus a relatively weaker yarn that would make weaving impossible in mill weaving would be possible by the handloom. What individual fibres in Indian cotton lacked in strength was compensated through greater twist provided in spinning. Greater friction between fibres in hand spinning resulted in little loss in overall strength of the yarn.

Gregg pointed out other advantages of charkha yarn over mill yarn. The individual fibres were stronger and more elastic, the twist more uniform, no electricity developed in the hand process and the individual fibres were better locked. The larger periods of storage for ripening and drying in hand processes gave more twist to the individual fibres and greater strength. The exposure of raw cotton to the sun increased the elasticity of the seeds and helped prevent their being crushed in the gin. Gregg gives us further proof to show how the demands of trade worked against the qualities of the Indian fibre and how increased speed of operation was at the cost of quality. The hurry to send the cotton to the ports from the inland production centres before the onset of monsoon prevented Indian cotton in the 19th century from attaining its maturity and true strength. If Maganlal had set the stage for research on hand made processes, Gregg provided the theory and scientific understanding for the Charkha Sangh's claims on quality.[50]

Naik and the Kapas Samiti of Charkha Sangh

The khadi movement was unable to work out all these possibilities though it had faith in them. The need for systematic work on cotton varieties was taken up only in the late 1940s with the setting up of a 'kapas samiti' ('cotton committee') under the auspices of AISA in 1949. Dadabhai Naik, who was the head of this committee was perhaps the last dissenter to argue for the quality aspects of Indian cotton. Much of Maganlal's experiences were based on Gujarat, which had traditional long staple cotton. Naik's experiences in Madhya Pradesh made him to question more frontally the mistaken notion of longer staple leading to more durable cloth. He argued that government policy favoured the mills through legislation and pricing policies disfavouring short staple varieties. The government scientists claimed that tree cottons attracted pests and legislated against it asking farmers to burn the plants after harvest. The pest problems however did not reduce but some indigenous tree cottons like the Karunganni never survived.

Given the total neglect of research by research laboratories regarding varieties suited to khadi, the AISA decided to embark on an ambitious research programme on cotton. This programme recognised that diversity of varieties was possible and could only be preserved through larger participation of people in the scientific quest. The research agenda of the AISA was to progress through open sharing of information and a call was made for participation by farmers and enthusiasts to build a knowledge base of the varieties of Indian cotton through large-scale experimentation across the country at various farms and regions. The committee listed the parameters for research, which emphasised pure line selection of local varieties of local cotton over the hybrids, and durability and maturity of fibres over staple length. Primary research was to be done at the farmers' fields and there was scope for final testing at the government laboratories, though with an altered perspective. Naik insisted that the laboratories would have to look at the cloth as a whole and not just the fibre or yarn strength. Naik went further and suggested a 'wear test' (emphasising

durability) instead of the conventional 'tear test' which was based on tensile strength.[51]

Krishnadas Gandhi, the then secretary of AISA, made an attempt to share these insights with the Indian Central Cotton Committee (ICCC) to get them involved in research into indigenous cotton varieties. He placed before it the field experiences of the movement, namely, that durable cloth of the last 20-25 years were not from the prevalent cotton varieties. He pointed to the difficulties spinners faced in obtaining pure strains of rozia that gave durable cloth due to programmes that favoured the higher yielding jarila in the cotton tracts of Madhya Pradesh. Gandhi requested ICCC for varieties suited to each region. Placing their own experiences regarding desi cotton varieties, he questioned the ICCC on parameters such as tensile strength and staple length wondering if they were the only factors in the making of durable cloth.[52] This open invitation by the khadi movement to ICCC does not seem to have met with any meaningful response or rethinking by the scientific establishment. The findings of the khadi movement were relegated to ICCC's section on perennial cottons without creating any change in its main agenda. Naik was invited for a seminar on perennial cotton three years later and the cotton establishment continued its research agenda oblivious to the scientific questions raised.

At the seminar Naik was critical of the policy for finer cloth that necessitated import of cotton or cloth. He stated that the durability of the cloth made out of long staple cotton was suspect. "It is a half truth that the long staple cotton gives us a more durable yarn. The cleanness and strength of cloth is not dependent on the length of the staple as much as the percentage of maturity of the pods. Varieties with long staple have a lesser percentage of mature pods. ... India has always known to produce medium and short staple cotton. It is from these that the fine and strong muslin cloths was made and are being made. The Mochri and Gajjar kokti of Bihar, Kondapatti of Andhra and Bani of Madhya Pradesh are examples of these. So too the Coconadas and Nadams."[53]

The slow degeneration of the khadi movement after independence through its bureaucratisation made Dadabhai Naik the last known dissenter arguingfor indigenous varieties Naik put together his decade of research in a book titled *Kapas* in which he forcefully argues the case for indigenous varieties.[54] It is only in recent years that some scientists in the cotton establishment have started questioning policies that have disfavoured indigenous varieties.[55]

We have in this study attempted to link the khadi movement with the dissenting views in the history of textile technology. This helps us draw a different direction in the history of technology by charting out a genealogy of dissent, focusing on the roads not taken, and thereby understand to the biases that favoured a particular choice of technology. It is only by appreciating these fundamental changes in textile history that the present crisis in cotton farming can be set right. The clamour for greater yields of cotton without looking at the issues of sustainability and quality is likely to create more situations for suicides and starvation deaths. This presents a great challenge to researchers not only amongst cotton scientists but also in the textile industry and the khadi establishment.

The suicide deaths of farmers is a failure of agricultural science that the scientists can come out of only if they appreciate the historical nature of this crisis. Rather than look for collaborations with scientists' abroad in transgenic cotton and in growing organic cotton, the scientists would do well to listen to the long list of scientists and dissenters who spoke on and worked towards improving Indian cotton. The faith in Indian cotton varieties needs to be much more than peripheral attempts along the Indo-Pak border to ward off pests. Much more needs to be done within India to deal with the over use of pesticides and to reestablish the quality of Indian cotton of ancient times. It is only by being self critical of its role in society and being open to learn from traditions outside its own that the scientific establishment can be free from the danger of repeating the follies of history.

Notes

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1 Farmers in Haryana and Punjab have started shifting to other crops and to traditional varieties of cotton forsaking higher yields for greater pest resistance. Area under cotton this season was down 25 per cent and area under American varieties reduced to a half. See 'Cotton crop badly affected in Haryana', *The Hindu*, May 29, 1998.

2 See Revathi, E 'Farmers' Suicides: Missing Issues'. *EPW*, May 16, 1998, p 1207, for the case for neglect of irrigation in Telengana, and G Parthasarathy and Shameem's study 'Suicides of Cotton Farmers in AP: An Exploratory Study', *EPW*, March 26, 1998, which had highlighted the power of the pesticide money lender in the district.

3 The Indian Council for Agricultural Research (ICAR) has proposed the creation of crop disease resistant buffer zone of traditional cotton varieties along the Indo-Pak border to combat the dreaded leaf-curl disease of cotton. The plan suggests planting only desi cotton for 20 km along the border. See 'Buffer zone as antidote to cotton crop disease mooted', *Business Standard*, December 15, 1997.

4 See Olmstead, Frederic Law (1861), *The Cotton Kingdom: A Traveler's Observation on Cotton and Slavery in the American Slave States*, Modern Library Edition, New York, republished 1969.

5 See Laxman Satya (1997), *Cotton and Famine in Berar*, Manohar Publishers, New Delhi, 166-73.

6 Freight comparison between Indian cotton and American showed that cost of freight was about 6 per cent of the value of cotton in America while in India it amounted to 125 per cent. See Briggs, John, 'The Cotton Trade of India: Past and Present Conditions and Future Prospects', paper read before the Royal Asiatic Society, November 16, 1839, pp 36-37. Also Brice A C (1863), *Indian Cotton Supply: The Only Effectual and Permanent Measure for Relief to Lancashire*, pp 51-52.

7 Baynes, Alderman (1857), *Two Lectures on the Cotton Trade*, Blackburn, 15.

8 'Testimony of an Eye-witness, an English Cotton Merchant, addressed to the President of the Chamber of Commerce, Manchester, December, 16, 1838'. Quoted in Briggs

9 Shamrow, Ramchunder B (1853), *Notes on Cotton Culture in Western India*, Bombay, 1-16.

10 'The replies by W B Bruce of Calpee on 'Queries on the Culture of Cotton in Bundhelkand', proposed by G F Hodgkinson', quoted in Briggs, 61 See also Briggs, 54, for the botanists' views

11 Ibid, 65

12 Letters by F C Brown to John Bright, *Supply of Cotton from India*, letter no 2 to J D Sim, Secretary to Government Revenue Department, Madras, August 10, 1862 Letter to P Grant, 15-16

13 Shamrow, ibid.

14 See 'Cotton Cleaning in the Guzerat', published on October 5, 1839 in the *Bombay Times* and *Journal of Cotton* Quoted in Briggs, 72-75.

15 *Monograph on Cotton Manufacture in the Punjab*, 1885, 2.

16 Brice, 62

17 'The Letters of James Dunsmore' (1995), *Textiles Working Group Newsletter*, 8, PPST Foundation, Madras

18 'Letter to the Court of Director, dated April 17, 1816, by the Bombay Government'. Also 'Court of Director in London, to Governor General, Revenue Department, no 3 of 1837' in Briggs, 17 and 28.

19 Ibid, 19 and 44

20 Shamrow, 15-18

21 Brown to Grant, 12-14.

22 Rivett-Carnac, *Report of the Cotton Department for the Year 1867-68*, Cotton Commissioner for the Central Provinces and Berars, 1869.

23 Watt, 199-200.

24 The jari, a cross of the bani with the Garo Hills cotton was India's most prolific but most inferior short staple plant. Watt, *Wild and Cultivated Cottons*, 97-133.

25 Letter to Bazley on 'The Cotton Question', by Lt Col Showers, London (1865), 30-31. Also Rivett-Carnac, 43.

26 Dantwala, M L (1958), *One Hundred Years of Cotton*, Orient Longman, Bombay, 43-49.

27 'Letter from the Government of India to St George Frederick, Magistrate, Secretary of

State for India, no 60, Department of Revenue and Agriculture – Economic Products, Calcutta, dated December 31, 1903'.

28 Rao N G P (1991), 'Advancing Dryland Agriculture: Plant Breeding Accomplishments and Perspectives', *Indian Journal of Genetics*, 51 (2), 162-65.

29 The following were the projections of requirements over the years by the National Commission on Agriculture.

(in mn bales)

Variety	1973-74	2000
Extra long staple	6	20
Long	15	42
Superior medium	30	60
Lower medium	12	20
Coarse	5	5

in Santhanam, V (1981), *Cotton*, Indian Council for Agricultural Research Low Priced Book Series no 1, New Delhi.

30 Carnac, 136-37.

31 Watt, *Wild and Cultivated Cottons*, ibid.

32 Briggs, 48-52.

33 Rivett Carnac, 35-36.

34 Dunsmore, letters 3 and 5.

35 Borpujari, Jitendra Gopal (1973), 'Indian Cottons and the Cotton Famine 1860-65', *Indian Economic and Social History Review*, 10 (1), 37-49.

36 Uzramma, 'Cotton: An Introduction' (1995), *Textiles Working Group Newsletter*, 8, PPST Foundation, Madras.

37 Briggs, 21-22.

38 Watt, George (1908), *The Commercial Products of India*, John Murray, London, 593-94.

39 Brice, 46. Also Dantwala, 37-38.

40 Khadi Notes: 'Some Useful Varieties of Tree Cotton', *Young India*, July 5, 1923.

41 See Khadi Notes: 'Tree Cotton', *Young India*, July 26, 1923. Also Khadi Notes, 'Raw Cotton', *Young India*, November 15, 1923.

42 Maganlal Gandhi's *Charkha Sastra*, All India Khaddar Information Bureau, Ahmedabad, 1924.

43 Ibid, 28-34.

44 Ibid, 36-41.

45 Khadi Notes, *Young India*, August, 16, 1923.

46 'Room for Improvement', *Young India*, April 29, 1926. It is however not clear as to how successful Purushottam was in his experiments.

47 'Hand-spinning in Mysore', *Young India*, September 23, 1926.

48 Maganlal reporting on the spinning tests at the Ashram remarked that 'our method differs from this (modern testing), in that as we cannot afford to waste hundreds of yards at every test, we have not accepted the minimum of weight adopted by the laboratory as a reliable spinning test...' Maganlal Gandhi, 'Spinning Tests at Satyagraha Ashram', *Young India*, August 19, 1926.

49 'Maganlal Gandhi Memorial', *Young India*, May 17, 1928.

50 Gregg, Richard (1928), *Economics of Khaddar*, especially chapter on Cotton Technology, Natesan and Company, Madras, pp 87-96.

51 *Kapas ki Samasya : Khadi ki Drishti Se* (in Hindi) (1950), Publication no 1 of the 'Cotton Committee', AISA, Wardha.

52 Ibid.

53 Naik, Dadabhai (1952), *Vruksh kapas ki Upaj* in Proceedings of the Symposium on Perennial Cottons: Fifth Conference on Cotton Growing in India, ICCC, Bombay.

54 Naik, Dadabhai (1961), *Kapas*, Akhil Bharat Sarva Seva Sangh, Varanasi.

55 Rao N G P (1991), op cit.

Philosophical Foundations of a General Theory of Numbers

Chhatrapati Singh

This paper considers how Indian mathematicians have traditionally cognised numbers and their operations, and what bearing it has on problems faced by modern number theories. The discussion is not merely an exposition of the traditional Indian view. The Indian conceptions have the potentiality of generating alternative perspectives which may be conducive to providing solutions to modern problems or in striking our new paths. It is these alternatives that this paper seeks to explore. It considers not just algorithm of numbers but their philosophical foundations. Since algorithms and axioms are finally based on philosophical ground beliefs, it is only by analysis of these beliefs that clarity can be achieved for alternative conceptions.

Before discussing the Indian views and their consequences, it first states the general problems about numbers posed by the western tradition for which solutions have been sought and discusses the attempted solutions to the important problems. It is only in the light of this that the Indian alternative can be properly appreciated.

I
General Problems

THE numbers involved in enumerating – 1,2,3, etc, are taken to be of the simplest kind. Since late classical Greek times these have been called 'natural' numbers, thereby being contrasted with the 'artificial' kinds of numbers, such as rational numbers (all numbers expressible as fractions), real numbers (all numbers that measure length and areas – for example, the ratio of hypotenuse to side on an isosceles right triangle, $\sqrt{2}$, although real is not rational), complex numbers (those having 'imaginary' components based on $\sqrt{-1}$) and transfinite numbers (uncountably large numbers). Theory, dealing with natural numbers alone is elementary number theory; whereas theory of real numbers is known as analysis. I shall be using the term number theory generally, to include all types of numbers, unless otherwise specified.

There are two distinct types of foundational issues involved in any number theory: (a) what ground beliefs (as axioms, theorems, principles, etc) must one accept for the relationships that hold between different types of numbers; and (b) what basic beliefs must one accept for the relationships that hold between these different types of numbers and reality. The first concerns issues about internal relationship between numbers and the second that of external relationships between numbers and the world. The first belongs to mathematical logic, and the second to philosophy of mathematics. These two issues require different types of solutions, but number theorists often mix and sometimes confuse them. This happens because, as we shall see, one's views of internal relations, i e, in mathematical logic, is not independent of one's view of external relationships, i e, in philosophy of mathematics.

The general problem about internal relations concerns the derivation of all types of numbers from a single prototype, always the natural type. The desire for such a derivation is grounded in the fact that if successful, a deductive internal relationship would have been shown to exist amongst different types of numbers. The establishment of deductivity has its psychological roots in the desire to remove arbitrariness and discontinuity in the existence of numbers, and its epistemological roots in the desire to show what is possible as following from what is known to be real. A similar further feat is then desirable on the class of numbers that has been taken to be the prototype, the natural numbers. These have to be shown to be derivable from a set of basic axioms. The motivation once again is same – if all theorems can be derived from the axioms, an internal relation of deductivity has been established within that class of numbers. The basic epistemological requirement can be expressed in Leibnizian terms: there must be necessary and sufficient reason for the existence of anything.

There are some outstanding problems concerning internal relations for which no solutions have been found so far. One concerns finding the algorithm from which the occurrence of the prime numbers in the natural numbers series can be deductively deduced. Another concerns showing deductively why every even number is the sum of two prime numbers – the Goldbach conjecture. And yet another, Fermat's last theorem about why there is no natural number satisfying the equation $x^n + y^n = z^n$, where n is a natural number greater than 2.

Solutions to the problems about external relations, however, are much more baffling. The first general problem is: what do numbers represent in relation to the external world or human consciousness? The usual answers, such as that they represent classes or sets, are intelligible with reference to natural numbers, that they run into serious difficulties with real (incommensurate) and imaginary or transfinite numbers are considered.

The second general problem concerns explaining the reasons for the occurrence of similar or same periodicity in the number series and series of disparate entities in the world. For example, the series of tones in the musical scale has almost the same periodicity as that of prime numbers. Similarly, the harmonic series in progression of numbers is named after the series of musical notes which are harmonious in progression. One may also note that the progression of numbers of protons in the nucleus repeats its properties after every seven protons. Exactly similar is the case in music, after the progression of every seven whole tones the eighth tone repeats the properties of the first. Then there are 'invariable constants' in physics, whose values turn out to be the same in all operations and frame of reference, such as Dirac's number, or the speed of light or Avagadro's number. One may dismiss such observations as contingent coincidences, but they may not be so. There may be a deeper reason why the periodicity in matter and music are similar, or why some values are invariable. Insofar as the human mind seeks sufficient reason for every phenomenon, the basic problem about explaining the relationship between numbers and the reality with which they coincide remains. Let us turn now to review the important solutions that have been

provided for these problems. I shall discuss solutions to problems concerning internal and external relations separately.

II
Modern Solutions

(a) Internal Relations

Philosophical puzzlements about various kinds of numbers was greatly reduced by the works of Richard Dedekind (1888) and other 19th century mathematicians who developed a unified theory of numbers. They showed how each of the artificial kind of numbers, together with the operations (such as addition and multiplication) performable on numbers of that kind, can be defined in terms of the natural numbers and the operations performable on them. Moreover, they showed that this can be done in such a way that the laws that govern the artificial numbers can be deduced from the laws of natural numbers. In short, they were able to construct artificial numbers from natural numbers or reduce the former to the latter. This established an internal relationship of deductivity between numbers. There are alternative schemes of definitions that make this possible; one approach is as follows: Rational numbers can be defined as a certain type of sets of ordered pairs of natural numbers, the real numbers as a certain kind of set of rational numbers, the signed (positive and negative) real numbers as a certain kind of sets of real numbers, and the complex numbers as ordered pairs of signed real numbers. By using George Cantor's theory of infinite sets this scheme can be extended to yield a hierarchy of larger and larger infinite numbers. The resulting unified theory enables us to regard the various kinds of numbers as belonging to a single family, all emerging from one parent kind and governed by the same principles. The problem then remains of showing the generative principles of natural numbers only. The accepted set of axioms for generation of natural numbers are those presented by Peano (1889). His postulates run as follows:

(P1) 0 is a natural number.

(P2) If x is a natural number, there is another natural number denoted by x' (and called a successor of x).

(P3) $0 \neq x' = y'$, then $x' = y'$.

(P4) If $x' = y'$, then $x = y$.

(P5) (principle of induction):

If Q is a property which may or may not hold of natural numbers, and if (a) 0 has the property Q, and (b) whenever a natural number x has the property Q, then x' has the property Q.

There are numerous more refined symbolic representations of these basic axioms which attempt to delimit the meaning of the primitives 'successor' and 'property'. In their *Principia*, Russell and Whitehead (1910-1913) attempted to deduce the above axioms from basic principles of logic so that axioms and theorems of arithmetic may be shown to be totally derivable from basic logical principles. Such a reduction is called a logistic thesis for arithmetic.

Assuming that the Dedekind-Peano scheme and Frege-Russell logistic interpretation of it is correct in some ways, does it really amount to a general theory of numbers as Dedekind claimed? This is far from the truth, despite ubiquitous beliefs to the contrary. First, this approach ignores the problems about the external relations of numbers to the world, in the wider sense explained earlier. That is, besides being unable to give a satisfactory answer about what numbers represent, the theory fails to explain the reasons for periodicity or the lack of it as amongst prime numbers. Second, the very basis on which internal relations are attempted to be explained are themselves questionable. It invokes the notion of the 'pair', or 'order' and of 'set'. Within this theory these notions lie on the boundary which joins issues of external relations to those of internal relations. The notion of a 'pair' is itself a notion of a number, because its comprehension involves understanding what is meant by two; that is, one cannot claim to have cognised a 'pair' and not understood what is meant by two. This assumption is therefore question begging. Employing the notion of sets, and attempting to reduce number theory to set theory has its own problems. For first, by now mathematicians have shown that various schemes of definitions are available for characterising set-theoretic entities having the desired structural properties. We have no reason for regarding one of these as the correct or preferred scheme of definitions for numbers and other schemes as false. Second, in response to paradoxes within set theory – such as Russell's paradox,[1] several distinctly different forms of set theory have been evolved, each having some advantage and some disadvantage, but none being free of arbitrary limitations. This undermines the view that with the help of set-theory we can discover and describe the structure of a realm of abstract reality. Further, it is now known that natural numbers cannot have decision procedure consisting of mechanical routine steps as a general test of the truth of statements expressible in the notation of the number theory. This fact is corollary to Kurt Godel's (1931) proof that there can be no consistent set of axioms for natural numbers from which every truth expressible in the notation of the theory could be deduced. Another fundamental discovery is the Lowenheim-Skilem theorem which states that if a set of quantificational schemata are consistent they all come out true together under some interpretation in the universe of natural numbers [Thoralf 1934]. This implies that the logical structure of any theory (its truth functions and quantifications) is insufficient to distinguish the objects of the theory from natural numbers; they could as well have been words or musical notes. Logistic schematisation, including axiomatisation, by itself is, therefore, insufficient to prove that the rules reveal the deep nature of numbers and not of other entities. This realisation, as we shall subsequently see, has significant relations to the Indian perceptions.

(b) Critique of Sufficiency of Internal Relations

Despite the differences between the numerous set-theoretic and logistic approaches to problems concerning internal relations of types of numbers and those inherent in natural numbers itself, there are some common threads running through all these diverse attempts. It is important to note these because they are some of the basic tenets which distinguish these lines of western thoughts about numbers from the Indian view. These tenets are:

(a) The belief that the progression 1,2,3, etc, of integers is in fact the natural kind, i e, these are the most elementary types of numbers which must form the basis for all other types of numbers; it must be noted that within the schema this is dogma, however, intuitively certain one may feel about it. There is nothing in mathematics to warrant the belief that what we call 'complex' or 'artificial' numbers are not indeed the natural kind, in the sense that they most truly reflect, or are related to, the way the world is naturally ordered. That the world is not naturally ordered in the progression 1,2,2,...The particulars are just there.

(b) The belief that progression of numbers is ordered n natural succession of unity, so that the successor of n must be n+1. This basic assumption of Dedekind-Peano, Russell and others, is a dogma too. It may be true by definition but not necessarily a feature of how progression happens in reality. It is quite possible that real progressions are incommensurate, and therefore the progression of a value, which may be designated as a number, is an incommensurate value, the next number.

The assumption that 'natural' progressions are in unities is a mental construct. Standing as much in need of justification are hypothetical: axioms of number theory always assert the existence of something. The axioms invariably run: 'There is an x such that x has the property...'. Once the axioms are expressed in this way the question naturally arises: what is the nature of the thing whose existence is being asserted? Or perhaps, is it the case that one has first presumed that numbers must exist as something and in some way, and then gone on to construct the axioms? This is not unlikely. But first let us see what sorts of solutions have been proposed to unravel the nature of the existence of numbers.

One broad category or philosophical views comprise those according to which the laws of number theory are somehow literally true. They attempt to assert that things deserving the name of numbers do exist and are in no sense fictional, and that such things are amongst whatever belongs to the "ultimate furniture of the world". Literalistic views can be divided broadly into three kinds: nominalistic, conceptualistic and platonistic. I shall consider only these three views in some detail here because it is these that have gone into the various formulations of axioms in the number theory, such as of Peano and Russell.

Nominalism is the view that there are no abstract entities. A crude version of formalistic nominalism would identify numbers with signs on paper, blackboard or wherever they occur. More serious formalism would assert that only such signs exist and that there is nothing else of numbers besides them. A psychologistic nominalism, on the other hand, would identify numbers with particular ideas occurring in people's heads. Gottlieb Frege (1962) criticised such nominalistic positions by pointing out that there are larger numbers which have never been written down or thought about. These would not exist in this view. Also, different languages have different signs and words for numbers. If their existence were identified with these signs or words each number would have a simultaneous multiple existence and its uniqueness of meaning would be lost. W V Quine and Nelson Goodman (1947) have attempted to provide a more sophisticated version of nominalism. However, no series of actual concrete items in the real world seems capable of being known to constitute a progression in the full sense required by such number theories. Moreover, this view also overlooks real and transcendental numbers which can neither be completely written down nor thought of. For this reason nominalism fails to provide an explanation for the existence of numbers.

Conceptualism may be roughly characterised as the view that abstract entities exist but only in so far as they are creatures of human thought. As a literalistic view of numbers conceptualism may be regarded as holding that numbers literally exist as timeless abstract things yet are mental constructions which have no being independent of the mind. Kant (1764; 1781) is a representative of this view. He connected numbers with time (a 'pure intuition', 'the form of inner sense') and believed that knowledge of numbers rests on the mind's capacity to repeat the act of counting, time after time.[2] In recent time L E J Brouwer (1912) has also defended a similar view. This form of intuitionism faces problems similar to nominalism. First, there are larger numbers which have never been counted, therefore their status becomes problematic. Second, there are real numbers which cannot be counted hence their status too becomes dubious. However, the more serious problem with intuitionistic conceptualism is its difficulty in explaining how mental constructs apply to external phenomena, including those where periodicity and progression are involved. For example, does the mind construct the nation of the progressions between musical notes or does it discover them as property of sound? It is more commonsensical to hold the latter view. When such conceptualism is pushed to its logical consequences it must lead to idealism, such as of the Hegelian kind, where the real becomes the rational and the external-internal distinction does not hold. The problems about numbers would, however, still not be solved, although the problem of its application would. For example, it would be a great puzzle how the mind can claim the existence of all numbers when it has not constructed them, or how it can deny it when there is nothing else besides mind. Problems about numbers which cannot be counted will also remain.

Platonism is a realistic view which holds that numbers neither exist as signs nor as mental constructs but have an independent existence in a separate realm. It is the mind's task to discover the properties of this realm. Recent set-theoretic and logistic theories of numbers, such as of Dedekind, Frege and Russell, have tended to be platonic. Such a strategy is more an attempt at explaining away the problem about numbers than at explaining them. For, in effect, what it does is to shift the problem about the status of numbers to problems about a whole realm of mathematical entities which include numbers. One has then to inquire about the ontological status of this whole realm and its relationship to the actual world. Explaining the reasons for plurality of realms has its own metaphysical problems, but in this case the difficulties are additional. Because what is supposed to exist in such a realm are universals, not particulars, or 'forms' in Plato's terms. Now whereas with respect to figures and shapes the notion of an ideal or universal form of geometrical entities is intelligible – in the sense that in imagination one may attempt to visualise the form of a perfect circle and blame the imperfection of one's cognition on the limited capacity of the mind, this type of intelligibility is not available when one attempts to visualise or cognise the form of a universal or perfect two. Any two seems to be just as any other two, unlike triangles or circles which have degrees of perfection. Extending platonic realism beyond geometry creates more confusion than clarity, besides compelling one to give spatial interpretations to numbers in which their 'forms' are sought.

None of the main literalistic theories of numbers is satisfactory. The fact that Peano, Frege, Russell and others have tended towards Platonism, and that the basic assumptions mentioned earlier have been employed, makes it necessary to inquire into the Greek foundations from which they derive their life.

III
Greek Foundations

In Greece mathematics developed out of the necessity to measure land. This necessity arose from the manner in which real estate was divided amongst individuals. Regulation of property through law, which found better expression in the Roman law, was thus directly related with the development of geometry, which by and by became the paradigm science.

In India family and clan structures did not necessitate division of land holdings. Property was held in common by the family or the whole clan or tribe. Communal rights in land involved the notion of 'kshetra' or field within which individuals could enact (live) their lives. Thus, the science of possible actions within a field drew greater attention than geometry. Considerations of possible actions made predictability the central goal of science, and not measurement of exactitudes as it happened in Greece. The fact that only an area which is exact, distinct and measurable can exist as someone's property in law or custom, brought about a deep rooted

association between the notion of existence and exactitude, distinctness and commensurability, in the Greek mind. Individualism at the economic and legal levels is thus not unrelated to the epistemological and ontological assumptions which the Greeks applied to mathematics.

For Greek mathematicians, thus, whatever was exact and distinct existed and vice versa. Euclid's assumptions, therefore, are all existential postulates, they all assert the existence of something, and of relations between them. The belief that whatever exists is clear and distinct subsequently become a basic tenet of western mathematics, its clearest exposition being the Cartesian one. This also made the notion of the copula 'is' or 'to be', the central notion around which identity relations could be asserted as basic mathematical propositions. In short Cartesianism and Platonism have formed the foundational background for mathematics in the west.

With the rise of different types of geometries in this century the Euclidean postulates of existence and hence Platonism, had to be dropped for this part of mathematics. But not so for number theory. Peano's, Dedekind's, Russell's and other scheme, as we have seen, begin with existential postulates. They also attempt to reduce incommensurate complex or real numbers to exact and distinct natural numbers whose existence is certain. This is true of both set-theoretic and logistic interpretation of numbers.

Cantor (1932) characterised a set as "any collection of M definite well-distinguished objects of our intuition or thought which are called the 'elements' of M, into a whole". Notice the Cartesianism in this definition. It has formed the basis of most subsequent set-theoretic explanations. It is virtually impossible to explain Cantor's idea of a set without using words of the same general type, only vaguer, such as 'collection', 'multitude', etc. The notion of a set is an existential primitive in this scheme.

The move from set-theoretic explanations to logicism is through Frege (1962 Vol I: 36ff). Instead of 'set' Frege used the term 'extension of a concept'. The extension of a concept is simply an object associated with the concept in such a way that if two concepts apply to the same object they have the same extension. Frege's usage is based on the tendency to regard the predicates of a language as standing in quantifiable places and to derive from the general terms abstract singular terms, which are usually explained as referring to properties of attributes. Since identity relations, in which general quantifiers quantify variables, can be expressed symbolically as logical formulae, Frege's scheme makes way for the reductions of arithmetic to logic, Frege's ideas were, in effect, to define the cardinal numbers as the equivalence classes or relation in which there was one-to-one correspondence between the numbers and the extension of the concept. This definition requires a powerful use of the notion of extension, which in the final analysis are sets, since Frege regarded numbers as not features of individual things but pertaining to sets. We have already seen the problems with set-theoretic explanations.

The alternative to Frege's scheme, the Hilbert programme, also rests on Platonism. Hilbert (1928) sought to establish classical platonistic mathematics on a firm foundation by formalising it and providing the result of this formulation as internally consistent for all theorems of arithmetic. Godel's proof showed Hilbert's programme to be impossible. In recent times mathematicians have attempted to analyse numbers on the basis of recursive function theory and model theory. Their theory uses constructivist methods, but their philosophical foundations are unclear. We shall consider them in some detail after discussing the Indian perception of numbers. The Indian perceptions too, as we shall see, leads towards constructivism, but for altogether different reasons.

IV
Indian Approach

The orientation of Indian mathematics was towards finding basic algorithms on the basis of which predictions could be made. A basic reason for this was that astronomy in India had close affinities with religion. All Vedic rituals were, and still are, performed strictly in accordance with the position of the stars and the members of the solar system. The necessity to predict their exact position thus became a matter of utmost importance.

Such a social requirement necessitated the development of algebra, and not merely arithmetic and geometry. The evolution of algorithmic rules through application of which the values of unknown variables could be determined was a natural consequence of the desire to extrapolate from the known to the unknown. The notion of a field, kshetra, in which the individual variables could play their specific roles was already available to the Indians on account of their social and legal arrangements. Algebra was therefore conceived as 'bija-ganita', as a science of planting individual unknown bija (seeds) in kshetra and then finding out how this bija varied or grew within this field. Such an orientation is evident in the earliest *Sulbasutras* (texts on menustral geometry) and *Vedanga Jyotisa* (astrological work). The notions of kshetra, karma (action) and phala (results) which go together had their basic metaphysical roots in 'samkhya' philosophy, as one can find in the *Samkhyakarika* as well as in the Gita which was influenced by it.

Such an orientation has some important consequences. On the one side it avoids the dogmas of Platonism and Cartesianism, and on the other, it offers a different perspective on intuitionism. I shall discuss the two aspects separately.

Whereas the Platonism of Greek mathematics has accepted numbers as entities and its geometrical Cartesianism made the Pythagoreans seek geometrical shapes as property of numbers – such as square numbers, pentagonal numbers and triangular numbers, the Indians were not stifled by accepting numbers, as entities. *Anuyogadvara Sutra* (100 BC) classifies numbers into three types: (1) 'samkhyata' (those cardinal numbers which can be ordered by ordinal numbers), (2) 'asamkhyata' (those which cannot be so ordered, e g, incommensurate numbers), and (3) 'ananta' (those which cannot be ordered, at all, e g, infinities.) This general division, with further sub-classifications, is pervasive in later works. *Apstamba sulbasutra* (3.8) classifies numbers as 'nitya' (commensurate) and 'anity' (incommensurate). Algorithms to determine the value of 'anitya karanis' (surds) were developed in great detail. More refined methods are to be found in *Aryabhatiya*. In Bhaskara-II's commentary on *Aryabhatiya* specially in the chapter 'Goladhyaya', as well as in 'Suryasiddhanta' and in *Katyayana sulbasutra*, rules to determine the values of incommensurate numbers find clear specifications. Similarly, fractions and negative numbers did not pose any puzzlement for Indian mathematicians. *Apstamba sulbasutra* classifies all fractional numbers as 'bhaga' and develops rules for operations on them. The important fact to note is that Indian mathematicians did not perceive the field of numbers as disconnected or asymmetric, unlike the Greeks who found it heterogeneous. The reason behind perception of numbers belonging to a homogenous field is that they cognised numbers not as entities, but purely as phala (result) of mathematical operations in the field of samkhya. In ancient Indian texts samkhya did not denote number (as

it does in Hindi now). It was a generic term denoting any quantifiable or determinable substratus (kshetra) from within which, amongst other things, numbers could be generated. The meaning of 'samkhya' in the name of the text *Samkhyakarika* makes this evident. This book is not about numbers, but about determinable and discernible results in the development of the indeterminate substratum ('padartha'). In his chapter of 'Bija-Ganita' in *Aryabhatiya* (1.1) Bhaskara-II states:

Utpadakam Yatpravadanti Budherdhistam satpurusena samkhya. Kritsanasya lokaeya tadek bijam byaktimisam ganitam cha bande.

(I salute that which Samkhya perceives as endowed with the qualities of personhood and the producer of intellect, and which is the seed of not only the manifest world but also unmanifested mathematics.)

In a science not bound by platonistic assumptions about necessary existence of entities or by Cartesian assumptions about necessary relations between commensurability and existence, explorations would naturally proceed towards the study of operations by which any kind of number can be generated within a variable or invariable field, whether or not they exist or be exact. Greater emphasis, therefore, is to be found on operations in Indian mathematics. In Sridhara's *Patiganita* (199 AD), a text has significant influence on all later texts, we find the names of various mathematical operations summarised as the very beginning of the work. Sridhara enumerates 20 types of operations that can be performed to generate numbers, and nine types of operations performed for groups or types of numbers [Sridhara *Patiganita* 900 AD, p 2]. Much has been said on the development of the decimal system and the number zero in India. But what is important is that '0' was never conceived as a number earlier, it was conceived purely as an operation. Its initial sign, a dot (a 'bindu'), has deep metaphysical significance in Tantra, a school of philosophy closely related to Samkhya. Thus, for example, just as the point in 1.2 in the decimal system does not denote a number but the fact that the 10th part of two is co-joined with unity, '0' in 102 in Aryabhat's system would signify the operation of co-joining 2 with 100. A debate whether zero is a natural type, of the western type, could never arise in Indian mathematics In *Bijaganita*, Bhaskara-II tells us:

Atra rupanam Vayyvaktanam chadyaksharasyas palakshanartha lekhyani vani rinagatani tani urdhavavinduni cha.

(Here, when the values of variables are unknown, express them as letters, such as 'ka', 'na', etc., but when they are negative signify the operation with a bindu (zero) above the variables, such as ka, na, etc.)

The emphasis on the fundamentality of operations not only overcome the problem of incommensurate numbers but also allowed a liberal attitude in which the principle of excluded middle did not become a binding axiom. This avoided the problems of Cartesianism in which truth and falsity are connected with existence and finally exact determination. Since operations and their products are correct or incorrect, approximate or exact, the question whether or not the principle of excluded middle applies to the realm of numbers would exhibit a misunderstanding from within the Indian perspective. The question would be a categorical mistake and not just semantic. The right type of question would ask: the acceptance of what type of operational rules then become a matter for theory of justification, 'nyayasastra', part of which is the theory of proof, 'pramanasastra', and not a matter for theory of truth. The criteria for the correctness or incorrectness of rules would be grounded in their power to determine reality (and consequently predict) as well as in their power to construct. This type of constructivism is pragmatic in approach. If the rules fail to predict or construct they would be incorrect, not false. The inconstructibility of a numerical value does not necessarily reflect on the nature of the value in this scheme, it may reflect on the inadequacy of the operational rules. The incommensurability of real numbers, or the negative or fractional values of others, hence, did not bother Indian mathematicians since such values were constructable by operations.

The employment of the criteria of determinability and constructability in mathematics has drawn the attentions of many researcher to the use of similar criteria in linguistics and other traditional Indian sciences. Navjyoti Singh (1984), for example, has emphasised the homology that exists between Indian linguistics and mathematics. That Indian linguistics and mathematics are homologous in fundamental aspects is undoubtedly true. But the reasons for this similarity does not seem to lie merely in the influence that one science had on the other. A deeper observation reveals that even in Indian musicology, where the properties of incommensurate 'srutis' (the smallest difference in pitch) are studied, similar criteria of determinability, constructibility, and operational feasibility have been employed. Similarly, Indian logic did not contend itself with finding the meta-rules governing the truth or falsity of propositions. It sought the foundations of probabilistic and multivalued logics. The reason for the homologous foundations of these varied sciences must, therefore, be deeper than the mere mutual influence.

The reasons seem to me to be metaphysical. This paper is not the occasion to discuss them in detail. However, the bare essential points need to be noted, since these beliefs have determined the development of not only the sciences and arts but also the socio-economic lifestyle.

The Greeks, and subsequently the Judeo-Christian beliefs perceived the world as ontologically distinct from god and also as a finished work of his. The Indians perceived the world as ontologically continuous with god (brahman) and not as a finished product but as a continuously transforming determination of his being in becoming. This is the most fundamental line of thought which divides the Judeo-Christian-Islamic world view from the Indian one, reflected in Hinduism, Buddhism, Jainism, Sikhism and all other systems of belief emerging from India. Since the products of god were ontologically finished or complete the Greeks were uncomfortable with incommensurate numbers or entities. The Indians on the other hand, naturally expected and accepted incompleteness and indeterminability. The nature of brahman or the 'padartha' being indeterminate, incommensurability was expected in mathematics, linguistics and music. Likewise, while the Greeks divided the simplest elements of phenomena into existing and complete atoms or monads, the Indians accepted not fully independently existing 'anus', atoms. The force of these basic beliefs is pervasive. While the ideal of Greek art, and western art for long, was recreation or representation of the existent, the aim of Indian art has been to create the ideal and thus through the process of becoming, bringing into existence something which was not perceived or conceived in existence before.

These remarks are meant only to underline the reasons for the homology that one finds in the development of various sciences in India, without any claims to finality. However, before we can begin to draw lessons for mathematics from this homology, it will be necessary to first briefly recapitulate it, so that we know exactly wherein the homology manifests itself.

The notion that there are kshetras (fields) in which the 'kshetrgyan' (operators)

function, is not applicable to mathematics alone. It is a generic epistemic notion which can be interpreted for any type of particulars. Thus we find its application in modern physics in expressions such as 'unified field theory'. What is the meaning of 'field' here? What does it refer to? Whatever it refers to, it is in a similar sense that the term has been used in Samkhya philosophy. In quantification and determination of the field Indian mathematicians found that operations yielded commensurate and incommensurate values which were signified by numbers. In communication and transfer of information within the field it was discovered that operations (meta-rules) yielded determinate results, such as propositions or statements, as well as indeterminate results, such as 'dhatus', the simplest elements of propositions. As concerns music within the field, it was discovered that there were determinable srutis, 'swaras', as well as indeterminate 'srutis', on which operations had to be performed to yield 'ragas'. It must be noted that these discoveries were not a priori, but empirical. The numerous phonetic elements with which texts of Sanskrit grammar, such as *Laghusiddhantakaumudi*, begins were discovered after close scrutiny of language. Similarly, the *Natyasastra* describes experiments with numerous 'vinas' (stringed instrument) with diverse lengths of strings to determine the smallest difference in pitch and thus to determine the srutis.

In linguistics the most significant development arose from the realisation that momentary syllablisation of sounds have the property of adding into phonetically and semantically meaningful utterances. The natural question to arise was: what are the simplest phonetic and semantic elements, and how does the process of addition of (the being of) these simplest elements take place to become meaningful propositions? The 'siksa' and 'pratisakhya' class of literature deal with the theoretical aspects of utterances. As concern semantics, the central problem, such as in Bharathrhari's *Vakyapadya*, is not how propositions become true, but how a series of sound patterns add up in time to become meaningful. The situation in music is similar: how do the simplest elements of sound, srutis, add up in time to produce 'rasa' (emotions)? *Rg Pratisakhya* (600-400 BC) deals elaborately with the meta-rules, 'paribhasa', of how utterances are joined together to yield meaningful results.[2] Bharatmuni's *Natyasastra* and Sarangdeva's *Sangitaratnakar*, among other musicological texts, deal elaborately with the question what sort of meta-rules are appropriate to join srutis together so as to yield melodies. In 'Pindotapatiprakarana' (2.2) chapter of *Sangitaratnakara* Sarangdeva sees a direct relation between the semantic meta-rules of language and music. In musical terminology the 'field' is referred to as 'nada-brahman'; Sarangdeva states in this section that language and music are the results of the operations of different operational meta-rules on the same 'nada-brahman', hence their foundations must be similar. It is also important to notice the parallels between the classifications of meta-rules for language and those in law, which although apparently disparate, are fundamentally similar because in law too rules apply to determine actions in an indeterminate social field. *Rg Pratisakhya* has three classes of meta-rules ('paribhasasutras') applicable to language, (a) 'samanya-sutra' (universal rules), (b) 'apavada-sutra' (rules for exceptions), and (c) 'nipatana-sutra' (counter-rules). The *Dharmasastra* texts (jurisprudential codes) make exactly similar classification of meta-rules into: 'samanya dharma', 'apavada dharma' and 'nipatana dharma' [For a discussion of different types of dharmas see P V Kane 1941]. These coincidences are not accidental, but reveal a deeper unity in beliefs.

The most significant thesis concerning the simplest element of propositions that pervades Indian linguistics is the one assigned to Bhardwaja: the thesis that the root or stem of a proposition is the verb, not the logical subject, the noun. Saktayana developed the idea that all words, including nouns, have verbal roots (700-500 BC). The 'Nirukta' (etymological tradition) that followed Saktayana, notable amongst which is 'Yaska nirukta', developed this thesis in various directions. The most significant breakthrough came through Panini's 'Astadhyayi' (600-400 BC), which took a whole sentence and not a word as the simplest unit in language. Panini developed his 'karaka' theory of language in which he attempted to set forth the rules which relate the variable that can stand for a noun with the variable that can stand for a verb. The deep structure provided by Panini's grammar provides the possibility of semantic interpretations and of recursive meta-rules, unlike the Chomskian scheme which remains at the level of syntax. The emphasis again is on the operational rules which can generate meaningful sentences rather than on characterising accomplished existential propositions.

The parallels between the approach in mathematics and in other sciences can be multiplied. What is important to note are the following methodological similarities:

(a) In the various sciences operational rules rather than existential propositions have been the matter of primary concern.

(b) Unlike the Greek tradition where mathematical propositions have an exceptionally higher ontological status, almost amounting to eternal truths, the status of such propositions in the Indian perspective was the same as the status of higher propositions about language or music; it faced the same problems as any other recursive set of rules would.

(c) Since recursive meta-rules can be applied to any field in which determination and operational construction is feasible, the syntax of the meta-rules by itself cannot decide to what sorts of particulars they can apply. In other words, the Indian theoreticians were already intuitively aware of the Lowenheim-Skolem theorem; they did not have the apparatus or the need to prove it; they were already practising what would be true as consequences of this theorem, namely, not confusing axiomatisation and deducibility with mathematics, and specially numbers

(d) The most significant methodological insight was that the property of co-joining or addition of the successors was not the property on any one specific series but the property of any field in which the values of undetermined variables could be determined by operations. In the field of 'nada', thus incommensurate srutis progressed in succession in time in such a way that they added up to commensurate musical notes and melodies, whose modalities could be ascertained by recursive operational rules to yield ragas. In the same field, with a different set of rules modalities for patterns of communication could be brought about, in which the succession of atomic utterances added up to yield words and sentences in time. The property of additivity, which in the field in which matter is considered is called 'gravity' is thus not the property of matter alone, it is the property of all determinable and discernible elements in the field, whether conceived as material or non-material. Just as elements of 'matter' add up to produce new forms, elements of sound add up to produce new melodies or statements as we produce them or when they get produced. With respect to different considerations about the field, there are different ways of expressing the process of additivity. With respect to human beings we say: they are naturally gregarious, leave some individuals together and they will soon form a society. With respect to matter if we wish to explain this process

of additivity by saying that there is a force of gravity pulling things together, we have not said anything more than that things are naturally endowed with the property that they will add up together. Whether Newton's principle of gravitation is a synthetic proposition of observation or an analytic a priori proposition of definition still remains to be decided within philosophy of science. Indian musicians defined the smallest bit of sound as the least difference in frequency perceptible by the human ear. Mention of the smallest bit of sound may seem abstract as compared to smallest bit of matter. But we must keep in mind that the description of matter in modern physics makes it just as intangible as sound. Now we are even talking of smallest bit of information in Information Theory. If this is intelligible surely the smallest bit of any other phenomena is too.

Let us turn now to see what these various observations from within the Indian perspective have for modern theory of numbers.

V
Consequences of Indian Approach

The thesis that I have built up on the basis of the Indian approach has the following significant consequences:

(1) Peano's first axiom that '0' is a natural number has to be dropped. There is no basis for this. '0' can be conceived as an operation.

(2) Peano's second axiom that every natural number has a successor has to be radically modified. Both Russell's interpretation of it that the successor of n is n+1, and Frege's version that there is one to one correspondence between the successors and the extension of the concept, are arbitrary. This can be assumed to be so by definition but to assume that this reflects how things are in reality would be a mistake.

(3) The existential assumption in Peano's second axiom that numbers exist is unnecessary. It is sufficient if they can be constructed as results of mathematical operations, whether or not the result actually represents something in existence. To show that it does so, additional semantic assumptions would have to be introduced.

(4) With the modification of first, second and third assumptions Peano's third and fourth axioms also become unnecessary.

(5) The principle of mathematical induction, Peano's fifth axiom, goes along with the successor axiom. In itself the axiom does not tell us what 'property' is being attributed to members. But if it is so interpreted the successor of n must have property of being n+1, problems similar to the second axiom would arise.

What I am suggesting in short is that number theory can rid itself of the problems it presently faces only by making a radical change like classical geometry to non-Euclidean geometry. Whereas geometry has made this leap, number theory still works with the classical Greek assumptions of existence and exactness. That is, while geometry has discarded Platonism and Cartesianism modern number theory is still hampered by it. However, this can be done only if one moves from cognising numbers from the Greek way to the Indian way. The Indian perception does not demand existential presuppositions. I also believe that the problems in modern number theory, such as Golbach's theorem and Fermat's last theorem, can be solved only after number theory becomes 'non-Euclidean' in the sense that it does not assume Platonism and assert or claim knowledge of the reality, but only of operations performable on it.

The philosophical foundations for a general theory of numbers would have the following characteristics:

(1) First it would have to define the basic operator and show that all other operations are reducible to the basic operation. For example, when additivity is taken to be the basic operation, multiplication is shown to be the summation of additions, division as the multiplication by the inverse, and so on. There are various schemes of doing this.

(2) It would then be required to apply this scheme to the number domains, that is, to the field in which the operations yield numbers. Such a requirement can be satisfied by the following basic axioms for number theory which utilises the notions of additivity and successor but avoids any existential claim:

(a) The successor of an infinitesimal numerical value is another such value. (Infinitesimal numerical value is the smallest magnitude, just as points are in geometry; such values would be the smallest result that mathematical operations can yield.)

(b) The successors have the property of additivity, i e, the principle of addition applies to them. (Note that the Peano-Russell scheme uses this principle, signified by the sign '+', but does not state that an additional assumption is being made here.)

(c) Successive addition of infinitesimal values can result in either accomplished or unaccomplished numbers (numerical values). A number is said to be accomplished when it can be divided only by itself or unity, i e, the addition of even one further infinitesimal value will make it divisible by a value other than itself. One may call them stable and unstable numbers, or any other terminology to signify this property.

The above axioms are sufficient for the purposes of number theory. The accom-

plished numbers are the prime numbers, and rightly called so. Mathematical operations of addition and subtraction (or other operations) can yield the full 1,2,3,... integer series, which have hitherto been called natural numbers. In this scheme the prime numbers are constructs from them. Once the 1,2,3...series is generated one can apply Dedekind's or some other such similar operational scheme to generate all other types of numbers.

Being so used to viewing 1,2,3,...series as the 'neutral' series one may find it difficult to accept my suggestion that the disconnected prime number series is the basic series. But this is a matter of education, or rather miseducation. We have been repeatedly told that the progression of n+1 is natural, there is nothing in nature to suggest this. We have already noted the Greek and Cartesian basis of this misconception.

Once we understand that the prime number series represent the series of accomplished numbers the problem of internal and external relations of numbers, mentioned earlier, is easily solved. The reprogression of the elements (of matter as well as of musical notes, besides other elements) turns out to be in terms of prime numbers because they represent accomplished or stable states of additivity. We must keep in mind that numbers are not entities, but results of operations on a variable field which could be interpreted for any particulars. To ask why stable additions (accomplished states) of infinitesimal elements of objects have values represented by prime numbers, is to go beyond mathematics. The solutions must be sought in physics or metaphysics. Mathematics limits itself to uninterpreted rules and meta-rules that may apply to any field, the accomplished state of any element is represented here only as a result of operations which yield values not divisible by any value.

If the virtue of this foundational scheme is to be judged, it can be judged from the fact that a problem such as the Goldbach's theorem is hardly a matter of much surprise here, it follows trivially from the basic axioms.

As noted, all unaccomplished numbers are nothing but the products of operations on prime numbers, that is, they can be generated by mathematical operations on prime numbers. Unaccomplished numbers include all odd and even numbers (which are not prime numbers) in the 1,2,3,... series. All unaccomplished (even) numbers, therefore, are the products of accomplished (prime) numbers. Since addition is the simplest mathematical operation and other operations can be reduced to it, all even numbers can be represented as sums of prime numbers. The 'first principle of arithmetic': that all numbers can be resolved into their simplest factors which are prime numbers, also follows from this. They can be so resolved because in the first place they were nothing but products of prime numbers.

This section will conclude by noting two important points. Although the Indian approach is a constructivist approach, it does not face the problems which Kant's constructivism faces. Since numbers are not conceived as entities the problem about their existential status does not arise. The question: do infinitely large numbers exist, would be interpreted as: do operations exist by which infinitely large numbers can be generated? The answer would be; yes.

Secondly, thinkers have often asserted that if one drops the principle of excluded middle what happens to classical mathematics, does it go over-board? [See for example Baker 1964]. Within this approach the answer would be, no. Peano's axioms which assume the principle of excluded middle would be a special case (interpretation) of the general axioms of number theory, just as Euclidean geometry is a special case of non-Euclidean geometry, or Newtonian physics of relativistic physics. It would be a special case because, besides restricting the domain of application (in which counting can be done by applying integers) it assumes a successor relationship also for the requirement of counting, not for characterising nature or the whole of reality. In other words, the Peano-Russellian scheme derives and applies to the necessity of counting, just as physical (Euclidean geometry) has its basis in the necessity of measuring.

Notes

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1 Most sets are not members of themselves; the set of cats, for example, is not a member of itself, because the set of cats is not a cat. However, there may be sets which do belong to themselves, e g, the set of all sets. Now, consider the set A of all those sets X such that X is not a member of X. Clearly, by definition, A is a member of A if and only if A is not a member of A. Thus, A is both a member and a non-member of A. This is a statement of Russell's paradox. For a discussion of this problem see Kurt Godel (1944).

2 See *Rg Pratisakhya* sections: 1.53, 4.1, 4.2, 4.34, 5.17 as well as 1.54 and 2.70.

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French Jesuit Scientists in India

Historical Astronomy in the Discourse on India, 1670-1770

Dhruv Raina

The intellectual activity finally culminating in the grand theoretical syntheses of the celestial sciences towards the end of the 18th century followed a century's toil undertaken by Jesuit scientists and traveller's posted outside Europe. This essay briefly addressed the endeavour of the French Jesuits who landed in India during the late 17th and first half of the 18th centuries. The Jesuit scientists of the period were inaugurators of a discourse on India and Indian historical astronomy marked by ambiguity, where fascination and dismissal so together; where the enchantment with the new world and its distinct knowledge forms provide the occasion for enriching the self in cognitive and cultural terms, and through an act of distantiation, of redefining the self as superior.

A true man of the church, he intended to prove that the Bible had not lied, but also a man of science, he wanted to make the Sacred Text agree with the results of the research of his own time. And to this end he had collected fossils, explored the lands of the Orient to discover something on the peak of Mount Ararat, and made very careful calculations of the putative dimensions of the Ark.

–Umberto Eco, *The Island of the Day Before*.

THE 18th century legacy of the history of science for long ensured that the role of the Jesuits in the advance of modern science was underplayed. This lack of attention was partially the product of an ideological fixation concerning the antagonism between science and religion. In fact, late 19th and early 20th century historiography had been habituated to the idea that science and religion were pathologically opposed to each other. The overplayed Galileo episode has for sometime been interpreted by historians of science as being a specific manifestation of the relation between the views of some natural philosophers and the interests of religious institutions [Wallace 1984]. Furthermore, throughout the medieval ages into the age of modernity institutions of Christian religion had evolved with traditional bodies of natural knowledge [Shapin 1996: 136]. The *ecumenical Merton thesis* has done a great deal to deflect our simplistic fixation with the conflictual model. According to this thesis, where "science prospered in early modern times, it derived important support and reinforcement from organised religion" [Heilbron 1989: 11]. A variety of astronomy that emerged in Jesuit institutions in Italy in the 17th century gradually blossomed into an active tradition of Jesuit science in France in the 18th century. This tradition has been little researched [Harris 1989: 41]; despite the fact that the Jesuit writings on the sciences constitute a fairly substantial corpus.

Between the years 1600 and 1773, the year when the Society of Jesus was suppressed, Jesuit scientists had authored more than 4,000 published works, about 600 journal articles appeared after 1,700, and about 1,000 manuscripts were available. The society's known publications include 6,000 scientific works covering areas such as Aristotelian natural philosophy, medicine, philosophy, astronomy and mathematics [Harris: 41]. The scientific writing of the Jesuits fall into six broad categories. Off the six, three of immediate concern to us include textbooks and treatises on Euclidean geometry and mixed mathematics, treaties, opuscules and journal articles on observational astronomy, and academic publications on experimental and natural philosophy [Harris: 42]. About 40 per cent of the Jesuit literary output from the foreign apostolates dealt with astronomy. These included important eclipse observations, other celestial events such as the transit of Venus, and the correction of longitudes of important places.[1] These efforts furthered the determination of the shape of the earth [Harris: 56], and in a less direct way provided the grounding for the finalisation of celestial mechanics, that more or less closed the era of Laplacian physics by the 1830s [Pyenson 1993: 4].

Amongst the French members of the Society of Jesus were many astronomers.[2] These contributions included the determination of latitudes and longitudes for all of China, the observation of solar and lunar eclipses as well as of eclipses of Jupiter's satellites, the passage of Mercury through the solar disc – to mention a few. These Jesuit astronomers also initiated studies on ancient Chinese records and observations, in order to analyse Chinese chronology. In fact, it was a similar interest that led them onto the study of Chinese, Indian and Egyptian history [Han 1995: 491]. These astronomical observations in Chinese were often used to determine the accuracy of Chinese history, and hence these Jesuit scientists were the progenitors of Chinese *historical astronomy* [Han: 492].

The historian of science, S N Sen, remarked in an important paper, that unlike the case of China, the Jesuits in India made little contribution to the growth of modern science [Sen 1988: 114]. However, some of Sen's own research into the history of astronomy requires a revision of the hypothesis. The Jesuit project in India was certainly not on as grand a scale as it was in China. Nevertheless, despite internal dissension within the Jesuit order, witnessed both in India and China, the Jesuits inaugurated the historical inquiry into ancient Indian astronomy (as they did in China) by providing both the impetus and material for French savants and astronomers to develop their *histoires de l'astronomie*. Furthermore, the efforts of French Jesuit astronomers in India and China mutually complemented each other. The institutional and administrative organisation of Jesuit science was ensured through the disciplinary structures of the Society of Jesus that reinforced a 'high level of group coherence and loyalty' [Harris 1989: 39]. Jesuit superiors stationed at foreign apostolates were thus required to send detailed reports and edifying news, in the hope of winning over new apostates, to Rome and western European metropolises [Harris: 57].

Three different interests, Jami points out, converged in the formation of the French Jesuit missions, and subsequently deciding their research agenda. In the first instance the director of the Paris observatory in the 1670s Gian-Domenico Cassini (1624-1712) submitted a proposal

to the minister Colbert to send Jesuits to China to make some astronomical observations, and to advance their knowledge of latitudes, longitudes and magnetic declinations. Secondly, the French king was compelled by French Jesuit interests to augment support for Catholic missions abroad, since it was binding upon the "Church's eldest daughter", to do so. The third, was part of a larger proposal to send French embassies to Asian courts [Jami 1995: 495]. One of the missions that was sent to Thailand finally landed up in Pondicherry.

A leading French astronomer stationed in China was Pere Antoine Gaubil (1689-1759), whose astronomical researches had exercised influence on the French astronomer, theorist and mathematical physicist, Pierre Simon Laplace (1749-1827). Gaubil researched into traditional Chinese astronomy, and proposed that the changing obliquity of the ecliptic should be adopted from Chinese astronomical sources. As indicated earlier, Gaubil was instrumental in creating a formation that one could call 'historical astronomy' – for convenience we shall take the term to designate the project of probing historical records for celestial events that could retrospectively result in the revision or validation of contemporary astronomical practice. This is evidenced in some of his important books such as 'Histoire abregee de l'astronomie chinoise', Paris, 1729; 'Histoire de l'Astronomie chinoise' that first appeared in volume 31 of the *Lettres edifiantes*; and *Traite de la chronologie chinoise* – while this manuscript was sent to Paris in 1749, it was Laplace who discovered a copy in the library of the Bureau des Longitudés [Dieny 1995: 503].

Pere Gaubil was in constant touch with the French Jesuit astronomer and cartographer Pere Claude Stanisla Boudier (1687-1757) stationed at Chandernagor in India. Boudier's reputation as an astronomer earned him an invitation to Jai Singh's court in 1734. During his journey to and sojourn at Jaipur, he, like his counterparts in China determined the longitude of 63 Indian cities, in addition to measuring the meridional altitudes of a few stars. [Ansari 1985: 372]. In addition, he observed the first satellite of Jupiter on April 2, 1734 at Fatehpur, and again at Jaipur on August 15 of the same year. He also observed the solar eclipse of May 3, 1734 at Delhi and had earlier reported the lunar eclipse of December 1, 1732. Pere Gaubil however considered that Pere Boudier's estimates of the diameter of the sun were on the higher side. It appears, that just as the French Jesuits provided the last accurate figures of the longitudes of the leading Chinese cities, Boudier did the same for Delhi and Agra [Ansari 1985: 372].

The historian of astronomy, Ansari tries to draw a parallel between the perseverance of the Jesuits in India and China. He is right in observing the neglect of scientific textual scholarship of the Jesuits in India; but then the phase of European textual scholarship in and on the sciences of India really commenced much after the Society of Jesus had been suppressed.[4] Regarding the place of Jesuit scientists in the court of the Chinese emperor and that of the Moghuls, Ansari's remarks are less conclusive. But the third point that the French Jesuits in India, unlike their Chinese counterparts were not good scientists and were not in contact with the best scientists in Europe is at best an overstatement [Ansari 1985: 374-75]. It is true that not all the Jesuit astronomers in India were in touch with the leading French astronomers located at Paris. It is nevertheless incontestably true that their reports and records became the source material for three subsequent generations of French astronomers: Le Gentil, Bailly, Laplace and Delambre. This in any case does not detract from the point that the Jesuits did not bring the Copernican revolution to the east, that its impact on Indian astronomy was minimal [Sharma 1982: 351]. We now come to the specific context of the French Jesuits who came to India, their writing, who they were and what source material they provided on the ancient astronomy of India.

Founding of Three French Jesuit Missions

The tenure of the European Jesuits in India dates back to the 16th century. But our purpose is not an essay that constructs the entire Jesuit corpus as one homogeneous text. On the contrary, internal political and doctrinal differences emerged within the Jesuit order as a consequence, not only of different intellectual traditions and social orderings, but more importantly of the rivalry between different European states.[5] In this particular case, we shall not discuss the programme of the Portuguese Jesuits in Goa in the 16th century.[6] The focus of our attention are the French Jesuits who arrived in India towards the end of the 17th and the early decades of the 18th centuries.

The counter reformation provided the backdrop for the first Portuguese Jesuits who arrived in Goa in the first half of the 16th century; and were propelled by the forceful colonising and evangelising impulse, manifest in rituals of 'slash and burn' evangelisation [Zupanov 1993: 136]. Another interpretive tradition found its expression in the evangelical efforts of the Italian Jesuit, Roberto Nobili, founder of the Madurai Mission. This strategy, Zupanov calls the 'adaptationist method of conversion' – *accomodatio* – was developed by Italian missionaries for Asian countries [Zupanov 1993: 124], and possibly came out of the Collegio Romano where this art of Jesuit conversion was rehearsed. This method was premised upon a humanist theological universalism [Zupanov 1993: 123], that was quite a variance with that of the Portuguese order. This strategy of *accomodatio* was in measure adopted by the French Jesuits who came to India and founded the Missions at Pondicherry, Mysore and Chandernagore. With the democratisation of knowledge that marked 17th century Europe, the lower literate social orders from whose ranks some of the Jesuits came, were also engaged in the colonial enterprise. These figures came around to considering themselves "superior to any learned Brahman", and found the "colonial setting fertile ground for this kind of psychological...official promotion" [Zupanov 1993: 143].

In the late 17th century, there were two distinct phases marking the relationship between French traveller's and Jesuits with princes of several Indian states. The first was a period of 20 years, from 1666 to 1686. The French saw the geographical expanse of the Indian subcontinent as politically divided in two: the Mongol ruled India of the north that was more or less independent from 'l'Inde pathane' and 'l'Inde carnatic'. As far as the French were concerned this period coincided with that of the relative prosperity of the Compagnie royale francaise, which indicated that the French had the necessary resources for the creation and extension of their commercial interests [Duarte 1932: 195]. Their first explorations were purely of a territorial nature, and the political leader adopted a policy of reconciliation [Duarte 1932: 196]. This was reflected even in the Jesuit programme of evangelisation.

The second period also extended over 20 years: from 1686-1706. Difficulties began appearing in 1677 and climaxed in 1679. By 1706 the Compagnie des Indes Orientales had all but disappeared, and was reconstituted in 1719. But this time it did not survive through its own efforts, having sold its monopoly to private societies. During this period French policy was limited to prudently and surreptitiously increasing the number of their posts, while awaiting favourable times [Duarte 1932: 196

The death of Saint Francis Xavier appeared to have marked the deceleration of the Portuguese proselytising fury in India. It was for Pere Roberto de Nobili to show that the contempt of the indigenous population towards the missionaries was the cause of the decline of missionary effort. He then set about reversing the trend. It was for him to inform Rome that: "We imagine that these people are ignorant, but I assure you that they are not. I am actually reading one of their books in which I learn philosophy anew almost in the same terms as I studied it at Rome, though of course, their philosophy is fundamentally different from ours" [quoted in Zupanov 1993: 126]. This hermeneutic discernment sought to propose that Hindu customs and rites could not only be incorporated into Christianity, but justified within Christian theology [Zupanov 1993: 127]. Zupanov conjectures that Nobili's aristocratic background possibly accounted for his extra-sensitivity "in detecting and acknowledging...non-European analogues". This proto-emic approach of seeing the world through the eyes of the other may have licensed "both epistemic condescension and intellectual curiosity" [Zupanov 1993: 143].

Geodesy and Chronology in *Lettres* of Jesuits

The French Jesuits arrived in their evangelical role on the Coromandel coast; the French king having sent these missionaries versed in the sciences of Europe to India. Peres Tachard, Fontenay, Bouvet, Gerbillon, Le Comte and Visdelou were the first French missionaries to arrive in India. As the 18th century commenced there were three large French missions located in southern India: the Madurai missions founded by Nobili in 1608; the Mysore mission that was first run by the Dominicans and later by the Franciscans. Neither of them left traces of their work, and it was left to the French Jesuits to refound the mission [Bamboat 1933: 85]. The third was the Carnatic mission that commenced at Pondicherry and was founded by members of the Society of Jesus who landed at Pondicherry after they were expelled during the course of a revolution in Thailand. The most notable of these Jesuits were Peres Tachard, Mauduit[8] and Bouchet [Bamboat 1933: 85].

Pere Tachard was among the first French missionaries of the Society of Jesus to choose India as the "theater for their apostolic work", having been sent by Louis XIV to Thailand in 1685. He learnt the language of the country and in 1686 accompanied the French ambassador to Thailand to meet Louis XIV and the Sovereign Pontiff. He returned to Thailand in 1687, but two years later following a coup against the king and his minister, he retired to Pondicherry with other missionaries and remained there till 1693. When Pondicherry fell to the Dutch, he was arrested and sent to Europe. He returned to Surat in India in 1696 and later founded a small seminary at Chandernagor [Bamboat 1933: 89]. He went on to found the Carnatic mission and sent Jesuits to the hinterland of the province. He had a reputation for making accurate astronomical observations that are contained in his diary and letters; in addition to which there are important remarks on the geography of the region [Bamboat 1933: 90-91].

In fact, in the year 1687 he visited Louis XIV in Paris with the French ambassador to Siam, M de la Loubere, and carried a Sanskrit manuscript from Thailand. This manuscript contained rules for the computation of the longitudes of the sun and the moon. In its own time, it was to exercise the scientific skills of Gian-Dominique Cassini, then heading the Paris observatory, before he could translate the computational rules contained therein into the language of modern astronomy [Sen 1985: 49]. Cassini's computations were presented in the *Memoires* of French Royal Academy. Based on the ratio of omitted lunar days to the total number of days, that Cassini took to be 11/703, he calculated the synodic month to be 29 days, 12 hours 44 minutes and 2.39 seconds. Having established that 228 solar months were equivalent to 235 lunar months, Cassini showed that the metonic cycles were known to the Indians who had generated these astronomical rules [Sen 1985: 50]. The sun underwent 800 revolutions over a computed period of 2,92,207 days, and Cassini estimated the length of the sidereal year to be 365 days, 6 hours, 12 minutes and 36 seconds. Since this figure agreed with the value obtained in the *Paulisa Siddhanta* of Varahamihira, it was much later argued that these computational rules were derived from the latter text [Sen 1985: 50].

Pere Papin was one of the first missionaries in India and was appointed Superior in Bengal in 1711. His letters and writings provide important information on the industry and medical practices of the region.[9] Like Pere Tachard, Pere Bouchet was a member of the expedition to Thailand in 1687. But the revolution of 1688 brought him to the province of Malabar. He was later sent to the Madurai mission. [Bamboat 1933: 93]. Bouchet opened up a discussion on metempsychosis and, shall we say, comparative philosophy. His detailed letter to M Huet, the former Bishop of Avranches [*Lettres*, 1810, Tome 12: 136-93], discussed the points of convergence of Pythagorean and Indian metempsychosis. As a Catholic, he was naturally perplexed by the doctrine of transmigration of the soul, and so embarked on a comparative discussion on the doctrine of the soul amongst the Indians, Pythagoreans, the Platonists and the Christians, and naturally sets up a distance between the former three and the latter [*Lettres* 1810, Tome 12: 145-53]. But what is most significant, is the preoccupation with, on the one hand eschatology, and on the other Indian cosmology, the theory of the beginning and the end of the world, the Indian book of genesis [*Lettres* 1810, Tome 12: 155]. This interest persists into the secular history of astronomy produced by non-Jesuit French savants, and is possibly the signature of the 18th century fascination with the origin of the universe, the commencement of terrestrial time. In astronomical terms, this preoccupation moves along a fluid boundary between the scriptural and the scientific, and is reflected in the second preoccupation of the 18th century mind that is articulated even within the archive of French Jesuit science, and this has to do with chronology.

This engagement with chronology is not to be disassociated from traditional cosmology. For if chronology dealt with the unfolding of time, it temporally situated the unfurling of human history. For those nurtured in Catholic doctrine, human time, like history, began after the Deluge. Consequently, the search for analogues of the Noahic Deluge figures in their reading of other scriptural traditions, as if the Deluge was a mythopoeic universal that informed our meditations on celestial time [*Lettres* 1810, Tome 12: 157]. In terms of the scientific interpretation of the Bible, as the history of science moved towards becoming a secular discipline, the Dispersion of Nations and the Deluge were to be dated. Hence these preoccupations were not specific to Antoine Gaubil for whom answering these questions required the study of the history of astronomy in China [Dieny 1995: 504], but of the Jesuits in India and the mental landscape of the 18th century scientific imagination, rooted both in history and the Bible.

Expedition of Peres Pons and Boudier to Jaipur

Pere Pons arrived in India in 1726 and after spending a few years in Thanjavur was appointed superior of the French Mission in Bengal. Other than compiling a Sanskrit grammar, and a treatise on

Sanskrit poetics that was sent to Europe, he visited Delhi and Jaipur with Pere Boudier, mentioned earlier, to make some astronomical observations [Bamboat 1933: 95]. We find an account of this in a note entitled 'Observations: Geographic Expedition Undertaken in 1734 by Jesuit Fathers During Their Voyage from Chandernagor to Delhi to Jaipur' in the *Lettres Edifiantes* [*Lettres*, 1810, 15: 269-91]. In fact, this is a report on the very observations mentioned earlier in our discussion on Gaubil. The report begins by pointing out that the raja of Amber, Sawai Jai Singh, a savant in astronomy, for whom the Jesuits had undertaken this expedition, had a number of astronomers working for him [*Lettres* 1810, 15: 269]. Jai Singh had requested the superior general of the church at Chandernagore, Boudier, to send Jesuit fathers stationed at Chandernagore to make some observations; and so Pres Pons and Boudier set out for Delhi and Jaipur

The motivations behind this expedition have been recorded by Eric Forbes [Forbes 1982].[10] Jai Singh's first contact with European astronomy appeared to reinforce his conviction that his large masonry observatories yielded more accurate results than iron astrolabes and sextants. He failed initially to appreciate the point that the source of his error was a faulty theoretical basis for computing lunar and planetary motions adopted by La Hire. In his letter to Pere Boudier, Jai Singh informed the former that he recognised this failing on mastering La Hire's book, and then wished to investigate whether other tables existed, and if so its underlying theoretical principles [Forbes 1982: 238]. And while Boudier was a "skilled telescopic observer", he was not equipped to answer Jai Singh's queries [Forbes 1982: 238]. Peres Boudier and Pons agreed to undertake the 1,000 mile journey to Jaipur on January 6, 1734 in the hope that they could establish a Christian mission at Jaipur. They reached Jaipur nine months later, but were forced to return shortly on account of ill health. When they were not making their observations, Forbes writes, they spent their time trying to convince the local brahmin's of "Indian astronomy's indebtedness to ancient Greek culture" [Forbes 1982: 240].

The document in the *Lettres* reports their observations of latitudes and longitudes of about 60 Indian towns and cities, the course of rivers they encountered during the course of their journey, the occultation of the Jovian satellites, and finally their observation regarding two eclipses that occurred in 1734. Appendix I provides a list of the latitudes and longitudes of some of the cities and towns obtained by them. However, there is an error of 35" in his latitude measurements of the observatory sites at Jaipur and Delhi [Sharma 1982: 347].

Throughout the 18th century one of the crucial obstacles for reconstructing the geography of India was the paucity of data on geographical latitudes and longitudes. The condition was further exacerbated by the non-standardisation of the Indian mile *vis-a-vis* the European mile, given the fact that the Indian mile varied from region to region of the country [Sen 1982: 1]. The Jesuits set about mapping this terrain. The method employed for determining these parameters required that the latitude and longitude of Chandernagor be known through a large number of astronomical observations. The route followed was carefully mapped as they travelled from one station to a neighbouring one. All along, the time was scrupulously noted with a time piece on hand, that was calibrated for the Paris meridian. The time spent was then compared with the speed of the vehicle. In addition, the detours along the route were carefully marked, and the speed of the air noted, a compass provided the directional readings [*Lettres* 1810, 15: 273]. This procedure was repeated all the way from Chandernagor to Kassimbazar to Patna to Agra to Delhi till they reached Jaipur. From Patna to Agra they could not use the compass since they were travelling by cart. Their observations had thus to be supplemented by surveying the course of the sun. Furthermore, throughout the voyage, as is done on sea, they had to correct their estimates by obtaining the latitudes of several locations [*Lettres* 1810, 15: 274]. No observations were made between Chandernagor and Kassimbazar since they covered this distance by the waterway, and the meandering path of the Ganges would have required that they spend a great deal of time to obtain a just estimate. In addition, they spent some time covering the distance at night [*Lettres* 1810, 15: 274. On examining a number of naval maps, they found that Calcutta was marked more towards the east than Chandernagor, while in fact it was more to the west. Boudier and Pons found it surprising that the pilots sailing on the Ganges from one town to the next had not corrected this error. In addition, the report contains observations of the meridional heights of stars in 1734 taken from several towns [*Lettres* 1810, 15: 280-83].

At Kassimbazar, the French Jesuits carried out observations to calculate longitudes in 1734. These observations related to the immersion of the first satellite of Jupiter on January 30 at 15 hours, 41, On the same day, the passage of Beta Polaris was noted at 14 hours, 2 minutes and a fraction of a second [*Lettres* 1810, 15: 284-85]. At that moment a second star passed the vertical of the North Star at 16 hours 21 minutes and 30 seconds. From the passage of these two stars across the vertical of the North Star the time of the immersion of the satellite was obtained. During this period the time elapsed was 2 minutes and 50 seconds, and the hour of immersion was corrected to 15 hours 38 minutes and 30 seconds. At Fatehpour the immersion of the first satellite on April 2 commenced at 13 hours 45 minutes and a fraction of a second. On the same day, the height of the tail of Leo towards the west was 46 degrees 9 minutes at 13 hours 50 minutes and a fraction of a second, and the height of the brightest star in Aquila towards the east, was 19 degrees 1 minute 30 seconds at 13 hours 57 minutes and about 10 seconds [*Lettres* 1810, 15: 285]. From the height of the two stars it was concluded that the time elapsed was 1 minute 26 seconds, the corrected hour of immersion was 13 hours 43 minutes and 34 seconds. Based on Pere Gaubil's observation of the time of immersion in Beijing on the April 11, 1734 [*Lettres* 1810, 15: 285], the difference between the meridian at Paris and Fatehpur was calculated at 5 hours and 13 minutes. This could be calculated differently. At a known time the interval between the immersion on April 2 and 11, was 8 degrees 20 hours and 25 minutes, that could be subtracted from the time of observation at Beijing On April 2, 16 hours 6 minutes and 57 seconds was the time of immersion at Beijing. But at Fatehpur it was observed at 13 hours 43 minutes 34 seconds. This gives a difference of 2 hours 23 minutes and 23 seconds, that must be subtracted from the longitude of Beijing, which was 7 hours 36 minutes. The difference between the meridians at Paris and Fatehpur was 5 hours 12 minutes 37 seconds or 5 hours 13 minutes [*Lettres* 1810, 15: 286] A similar exercise was carried out in the case of Agra [*Lettres* 1810, 15: 287]. Gaubil responded to the longitude measurements based on the observations of the occultation of the Jovian satellites, pointing out the error's in Boudier's calculations and that Boudier was unaware of stellar aberration [Gaubil, cited in Sharma, 1982: 347].

However, in the case of Delhi a solar eclipse that occurred on May 3, 1734 was used to obtain the longitude. The eclipse commenced at 3 hours 57 minutes and 1 seconds, but it was difficult to decide the

end of the eclipse since the sky was cloudy. The corrected time for the eclipse was 3 hours 59 minutes and 59 seconds and finished at 5 hours 58 minutes and 3 seconds [*Lettres* 1810, 15: 268]. In a letter Pere Gaubil had mentioned that the Swedish astronomer Celsius had observed the end of this eclipse at Rome at 11 hours 52 minutes and 1 second. Using the method developed by La Hire, the eclipse commenced at Delhi, when the time in Rome was 11 hours 40 minutes and 5 seconds in the morning, and finished at 1 hour 39 minutes 40 seconds in the afternoon. This gives the difference between the meridians at Rome and Delhi as 4 hours 19 minutes and 4 seconds for the commencement of the eclipse and 4 hours 18 minutes and 18 seconds for the end of the eclipse. These differ by 46 seconds, half of which is 23 seconds. Adding this to the smaller of the two figures, we get the mean difference of 4 hours 18 minutes and 41 seconds, to which we add the difference between the meridians of Rome and Paris, which is 41 minutes and 20 seconds. Thus the difference between the meridians of Paris and Delhi is 5 hours and 1 second [*Lettres* 1810, 15: 288].

On December 1, 1732 there was a total immersion of the moon at 22 'gharis' (the Indian unit ghari= 24 minutes, and each ghari=60 'palas') 7 'pols' after sun set was observed at Jaipur. The emersion commenced at 26 gharis 13 pols and a half after sun set. Thus the middle of the eclipse was at 9 hours 41 minutes 24 seconds after the sun set. In their calculation the brahmins had not taken account of the effects of refraction, and the fact that the sun set at 5 hours 12 minutes 48 seconds, consequently the middle of the eclipse was at 14 hours 54 minutes 12 seconds [*Lettres* 1810, 15: 289]. According to Cassini's observation at the Paris Observatory, the middle of the eclipse was 9 hours 58 minutes 38 seconds. Hence, the difference between the meridians of Paris and Jaipur was 4 hours 55 minutes 34 seconds [*Lettres* 1810, 15: 290]. While Gaubil had made his observations of the satellite of Jupiter using a 20-foot focal length telescope, the Jesuits during their expedition used one that was a refracting telescope of focal length 17-feet [*Lettres* 1810, 15: 290].

Perusing these records, we recognise firstly the importance and authority of Gaubil among the Jesuit astronomers in India, for he appeared to be providing them the numbers that they considered standard, and thus aided their calibration. It was Gaubil who forwarded their results to Cassini, and thus the latter was the final authority certifying the results of the expedition. Secondly, the study of the motion of the stars and the planets, enabled the savants, through the Jesuits to map the co-ordinates of the globe, symbolically weaving Paris, Rome, Delhi, Jaipur and Beijing into the new fabric of modern science of which the Jesuits were the prominent cultural vectors, and subsequently the agents of cultural imperialism.

The Duchamp manuscripts

In order to reassert the point regarding Gaubil as an authoritative figure within the realm of Jesuit science we must briefly discuss two other Jesuit scientists in India, Pere Patouillet and Pere Xavier Duchamp. Two of three important sources for the history of astronomy in India appearing in Jean-Sylvain Bailly's *Traite de l'astronomie indienne at Orientale* [Bailly 1787] and Delambre's history of astronomy [Delambre 1817 and 1819], were based on Jesuit reports of Sanskrit manuscripts. One of them was sent by Pere Patouillet from India to the astronomer Joseph de Lisle in 1750. This was a copy of the *Pancanga Siromani*. The manuscript may have come from Masoulipatnam or Narsapur, but Bailly felt that it came from Benaras that has the same meridian as Narasimhapur, whose provenance was questionable [Sen 1985: 50]. The manuscript of Duchamp, or the Xavier manuscript as Sen refers to it, could be a copy of a treatise on Hindu astronomy authored by Duchamp, that he had mailed to Gaubil then in Beijing [Sharma 1982: 348]. Copies of some of Duchamp's manuscripts are extant at the archives francaises de la Compagnie de Jesus at Vanves, Paris [Duchamp]. Most of these are not Sanskrit manuscripts, but accounts of Indian astronomical practices, calculations of eclipses based on the explication of the procedure followed by Tamil astronomers at Pondicherry, and contain a glossary of astronomical terms employed in Sanskrit and Tamil. Both Patouillet's manuscript and the Duchamp manuscript were the focus of much discussion with the astronomers Bailly, Laplace and Delambre. Pere Duchamp's manuscript suggests that within the Indian astronomical tradition there existed many methods for calculating the equations of the sun, moon and the planets. At the time, the manuscript was prepared, Pere Duchamp had not deciphered the steps in the operation employed to calculate the time for the commencement and the duration of eclipses. The procedures he documents have to do with those operations that were employed to calculate past eclipses. To validate his reconstruction of the computations of the brahmins, Duchamp requested the help of a brahmin astronomer, and used his method as an exemplar in order to illustrate the procedure employed [Duchamp: folio 000002]. It is during this ethnographic phase of French Indology, that the *Surya Siddhanta* begins to be canonised as the Indian *Almagest*. It is very likely that Duchamp was unable to decipher the Siddhantic rules for calculating eclipses. The method he encountered was probably the 'vaikiam'. Since Duchamp was unable to discover the textual source of the method he concluded that the method itself was forgotten amongst the practitioners of Indian astronomy and astrology. This textual dissonance is reflected in his explanation that is articulated from his location both in terms of cultural superiority, as well as the Jesuit construction of the brahmins as adversarial authorities. The brahmins would not have shared their knowledge of their method or divulged its source for they would have lost a livelihood had they done so. Secondly, Duchamp felt that they would have lost a sense of correctness of their science. This criticism drew upon the quintessentially renaissance premise regarding the virtues of the democratisation of knowledge.

The letters of the Jesuits [*Lettres* 1810] are not only important from the point of view of literature, but provide us of the first accounts of a country derived from a textual knowledge of Sanskrit. It was Nobili who had created an interpretive tradition that privileged the written text as being the voice of a civilisation [Zupanov: 126]. A number of Sanskrit texts were sent to the Bibliotheque royale in Paris; but these were largely texts of scriptural value. In this fascination with textually inscribed knowledge, Duchamp saw the brahmins as the only literate interlocutors in India, who no longer appreciated their rich textual legacy; and hence even they were in a sense illiterate.[12] The positioning of such interpretations within the discourse of India gave credence to the idea of the wisdom of an ancient people which had been disfigured. The theory of the lost ancient peoples was to serve, within appropriate contexts, as a device for maintaining their constructions of non-western peoples, that could in turn legitimate imperial control and programmes.

As far as astronomy proper was concerned the Indians had forgotten the theoretical context of their astronomy (read textual) and knew only how to calculate, and even these calculations of meridians, by now a Jesuit specialty, and eclipses were not accurate [Duchamp]. Consequently, Duchamp indicates that the native

astronomers had predicted that the eclipse of July 29, 1730 would be partial and the disk would be of the order of 3/4, when it was actually 4/12. Furthermore, given the Jesuit interest in chronology, Duchamp was unable to find the formula to convert the Indian calendars to the western one. Nevertheless, he specifies that the sources from Thailand would provide important material and throw some light on the equation of the centre [Duchamp: folio 000154]. However, in a letter to Souciet dated January 3, 1733, Duchamp retracted some of his remarks concerning the correctness of some of the Indian astronomical procedures, especially those related to the calculation of latitudes [Duchamp 1733].

Pere Calmette collaborated with the Carnatic mission for 15 years and studied the sciences and monuments of India, and discovered the similarity between the Indian and European zodiac, which in turn reminded him of Greece [Bamboat 1933:98].

However, we should note that when it came to the astronomical sciences, the Jesuits based their reconstruction on the recounting of astronomical practices, the era of textual reconstruction was a century away. In this, the contrast with China is substantial. Furthermore, the Jesuit scientists of the late 17th and early 18th centuries were inaugurators of a discourse on India and Indian historical astronomy marked by ambiguity, where fascination and dismissal go together; where the enchantment with the new world and its distinct knowledge forms provide the occasion for enriching the self in cognitive and cultural terms, and through a simultaneous act of distantiation, of redefining the self as superior. The terms of this engagement were defined by the contemporaneous preoccupations of late 17th and early 18th century Europe and France in this case. Despite the overwhelming dimensions of this intellectual landscape that provided Jesuit science with its crucial identity, Indian voices gradually imposed what Zupanov calls "their own horizon of interpretation" [Zupanov 1993:143]. But it is this new self-assurance in the idea and culture of Europe that possibly prompted Bamboat's remarks that the 17th century voyagers couldn't appreciate the beauty and depth of the literature and sciences of India [Bamboat 1933:146].

Cognitive and Cultural Horizon of the *Lettres*

The *Lettres* were first published in 1704 and its audience was the church of France, clerics and devotees [Murr 1983: 238]. The collection of letters sought to inform this devout readership of the work of the foreign missions and the difficulties that afflicted them. It also served three other strategies on the political, economic and apologist planes. In political terms, the *Lettres* constantly provided evidence of missionary activity in the service of the glory of the king of France [Murr:238]. The economic strategy was designed to attract resources for missionary activity abroad. Thus the *Lettres* served as publicity material to attract funds for the Society [Murr: 239]. As apology, the *Lettres* served as an instrument of religious propaganda, to point out to Catholic devotees that god was always amongst them and constantly intervened to assist those who served with religious zeal. But a more significant task was to combat libertines, atheists, skeptics and the attacks mounted by the philosophes. The letter of Pere Bouchet to M Huet, former Bishop of Avranches is an exemplar of this genre of philosophical and religious combat [*Lettres* 1810, Tome 12: 136-93]. Here, the author very subtly sets up a distance between Catholic doctrine and the views of the Pythagoreans and their Indian counterparts. The scientific agenda of the Jesuits never prevailed upon the strategic intentions. If in the course of their explorations they came across an Indian work that provided a more accurate, authentic account, Murr argues, they would certainly not have communicated it to Europe unless they felt that the cause of their religion would gain something; for the underlying belief was that the civil customs and religious beliefs of the Indians were undesirable for Christians in France. Thus Murr goes on to write that scientific finality was subordinated to pastoral finality [Murr 1983: 240]. Letters mailed from India by the Jesuits that travestied this official image of the country were either unscrupulously torn, edited, censored or modified by the editors of the *Lettres* [Murr 1983: 240]. Furthermore, as far as the transmission of scientific knowledge was concerned, we see no mention of Copernicus, Kepler or Galileo in their letters. In fact, during their expedition to Jaipur, it is not clear whether Peres Boudier and Pons even appraised Jai Singh of the Copernican system.[13]

There was a change in publication practices of Jesuit astronomers in India and China at the turn of the 17th and early years of the 18th century. The astronomical observations made by the Jesuits were regularly mailed back to Paris by the Jesuit-mathematicians of the king till the end of the 17th century. With the commencement of the 18th century the Jesuits preferred their own works on astronomy, or published their observations from their foreign missions in journals such as *Journal de Trevoux* [Murr: 243], that was established in 1701 and continued publication till 1767. Amongst a range of doctrinal debates and polemics the journal served as a forum for the publication of the scientific researches of the Jesuits. This possibly explains Heilbron's observation that after 1700 Jesuit scientists authored about 600 articles in scientific journals [Heilbron 1989: 41]. It is only in the second half of the 18th century after the Society of Jesus was suppressed, and the *Lettres* were terminated, that the Academie des Sciences became interested in anthropological terms in producing a positive discourse on India, devoid of partisan influences [Murr 1983: 243].

The information on India and the image of India appearing in the *Lettres*, Murr suggests, are enveloped in a rhetoric where the relations of alterity between the French and the brahmins simultaneously develop along three levels. The first is a radical alterity, where India is presented as an elsewhere [Murr 1986: 15]. Throughout the first half of the 18th century, the Jesuits reaffirmed that paganism was a form of madness and the unhappy Indians were prey to the delirium of a mythology as monstrous as that of the Greeks and Romans. Thus the translation of beliefs, superstitions and ritual practices were constantly aimed at presenting elsewhere as an elsewhere that was radical and close to an inverted image of here. It was an ideological and fantasmatic elsewhere signifying that the church was the fount of enlightenment, truth and reason [Murr 1986: 15-16]. The second is *similitude*: India is presented as an other here. At the same time, as the Indians were presented as anti-Christians, they were considered as similar to the Europeans. Like the philosophes, the Jesuits affirmed that human nature was identical and that exotic particularities were inessential. But this founding idea of human nature was not based on some rational anthropology, but was theological since rationality was constantly subject to the dictates of dogma [Murr 1986: 17]. The third sense was an *exemplar*: India is presented as a Utopia. There were to two types of Utopia, the first was Christian and the second 'system de police ideal' – the social order [Murr 1986: 19]. In the case of the Christian Utopia, the original purity of the missionaries conferred on them a legitimacy that *sui generis* they believed endowed authority on the first apostles and apologists in the apostolic work and from whom they adopted a model of autonomy in judgment *vis-a-vis* the Vatican. In the second type

of utopia, the social order of the Indians was presented in certain letters as an ideal model, where all social life was subordinated to the sacred order, the clergy was the fount of temporal power and that all social order was scrupulously observed and social pressure conserved values. This was the dream system of the Jesuits where natural life was mediated by social life, subsumed in turn by the reality of the sacred order [Murr 1986: 21-22].

Interpreting Bible and Mapping Earth

Amongst the French Jesuits who came to India were a number of Jesuit astronomers. While their task in India was primarily related to conversions, these Jesuit scientists played the important role of surveyors of this new domain. Even within their role as evangelists, they were predisposed to *accomodatio* as a missionary strategy, that had been perfected by Nobili and embraced by the Jesuits of the Madurai, Carnatic and Mysore missions. Furthermore, Nobili's strategy included adopting local cultural practices, and more importantly consisted in recognising the brahmins as the savants on the Indian subcontinent. The brahmins were thus projected simultaneously as adversaries, whose cultural practices were to be emulated in India by the Jesuits in order to further the cause of the French king and more importantly, the church. On the other hand, the brahmins were also considered the repositories of the cultural and intellectual treasures of India, and it was through them that Europe would be enlightened about this ancient land.

Hence, in the letters these Jesuits wrote home, we find a panel of images of India, most of which persisted throughout the French enlightenment, as well provided the founding tropes of Orientalism. However, these letters were also the source of much scientific information on the geography, botanical resources and medical practices of India – material for the historian of science. This material has not been meticulously investigated by historians of science, for reasons that partially have to do with self-imposed obstacles within the historiography of sciences. The scientific investigations of the Jesuits have for long been neglected. In addition, to the material appearing in the *Lettres* the Jesuits published their scientific findings in reports, in particular of astronomical observations, and scientific journals in the early decades of the 18th century.

While the era of textual studies on the history of astronomy of India did not commence till the birth of British Orientalism, the Jesuits provided an ethnographic account of the prevalent astronomical practices, and these accounts later went on to shape the subsequent reconstruction of Le Gentil, Jean-Sylvain Bailly and Laplace. Within the overarching frame of the *'discours sur l'Inde'*, the Jesuits simultaneously contributed to promoting an interest in the subject amongst practising astronomers from the age of the enlightenment. Beyond the fascination with this ancient knowledge, the Jesuit accounts were punctuated with markings of caution, that this ancient knowledge could not possibly have been generated amongst these fallen people, who had possibly disfigured a wisdom that had arrived from elsewhere. By the 1830s or thereabouts the idea that other civilisations could have had a 'science' as conceived by the Enlightenment came to be regarded with increasing scepticism. While India and Iran were possibly exceptions, the Orientalists had framed them as part of the Indo-European family. As Bernal succinctly puts it they filled the "niche of exotic ancestors" [Bernal 1987:236].

Jesuit interest in Indian astronomy had to do in turn with two raging Biblical themes: that of the commencement of the world and that of dating the deluge. Astronomy and the scientific interpretation of passages of the Bible would provide the hermeneutic to decode the precise history of these events. The skies, as in eras past offered the key to scriptural enlightenment. Jesuit interest in the astronomy and chronology of the Chinese and Indians was prompted by the need to explicate these events, in case other traditions had an answer to these quandaries or provided evidence tha[t] would validate the claims of the Europea[n] astronomers. The antiquity of India[n] civilisation provided the pretext fo[r] clarifying burning questions o[n] chronology. The debate was organise[d] around history, and the coherence of th[e] Judeo-Christian world founded on th[e] sacred chronology of the scriptures [Mur[r] 1983: 249]. Indian chronology, a[s] evidenced in the astronomical sources would provide the final validation that th[e] Indians could not have predated the delug[e] that was supposed to have transpired 3,50[0] years ago. Pere Bouchet and Pere Calmette cited earlier, in 1767 sent a chapter to th[e] Academie des Inscriptions et Belles Lettre[s] on *'Sciences de Brahmes, epoque d[u] Deluge'* [Murr 1983: 253]. Thi[s] preoccupation persisted in to the age o[f] the enlightenment. Dating the delug[e] served three ends. Firstly, it provided [a] secular, scientifically validated accoun[t] of certain primal episodes recounted i[n] the Bible. Secondly, it possibly certifie[d] that Judeo-Christian civilisation predate[d] its Indian counterpart. Finally, there wa[s] both the scientific and religious issue t[o] be settled, as to when the universe wa[s] created – a key anxiety for scientists an[d] Christians since the time of Newton[.] Newton during the later years of his lif[e] was ensconced in the world of alchemy[,] astrology and magic. But these wer[e] rather discredited predilections withi[n] a century of his death. This possibl[y] had to do with the triumph of capitalis[m] in England and Holland and statism i[n] France [Bernal 1987:169]. We are how[-]ever still located within the Jesui[t] world where these scriptural concern[s] were significant to the scientific prac[-]tices of the Jesuits – and this should no[t]

Appendix 1: Table of Latitude of the Following Places, and Their Longitude with Respect to the Royal Observatory of Paris

Name of town	Longitud	East	Latitude	North
Jaipur	73m	50'	26m	56'
Digh	75	22	27	25
Mathura	75	49	27	30
Agra	76	9	27	10
Delhi (Raja's observatory at the Mughal emperor's palace)	74	54'	28	37
Faridabad	75	8	28	41
Etawah	76	57	26	45
Fatehpur	78	30	25	56
Benaras	80	47	25	21
Jehanabad	81	40	25	10
Patna (with the Reverends of the Pères Capucins*)	83	15	25	38
Murshidabad	86	41	24	11
Chandernagor (the Church of the fortress)	86	5	22	51
Calcutta	86	2	22	33'
Balasore (the observation of the Jesuit Père Martin)	84	36	21	29

* Another Christian order from France.

Taken from the report of 1734 appearing as Observations in *Lettres*, 1810, Tome. 15, pp 271-273

surprise us. For in this 'deeply religious age', the book of nature was as much a source of the natural philosopher's knowledge as divine knowledge was of Scripture [Shapin 1996: 137]. While an independent existence was sought for natural philosophy, science could extend support to religious beliefs [Shapin 1996: 137].

The other dimension of the interest in the antiquity of Indian civilisation was to establish a certain direction of cultural diffusion. This direction would be essential to founding Europocentrism, and the idea that Greece was the epitome of European scientific culture. The historical device, that we encounter within the archive of Jesuit science, and that is frequently reiterated in the Enlightenment writing of historians of astronomy, is to draw upon various cultural analogies between the Occident and the Orient, and explain these analogies in terms of a cultural transmission from the west to the east [Murr 1983: 253].

This trend ran parallel with the suggestion of the Academie in 1744 to compose the history of India for itself. Outside the Jesuit circle, then the Academy sought to install Orientalism as contrary to Europocentrism. This complement to universal history, combined the hermeneutic method with comparative etymology to prove that Bacchus was none other than Osiris, who was none other than Esau, who was none other than Iswara in the Indian tradition. But this too was a superfluous alteration of the cosmogony of Moses [Murr 1983: 250]. It is not our purpose here to discuss the 18th century French Orientalists, but to highlight the key themes elaborated by the French Jesuits that shaped the subsequent historical discourse on the astronomy of India, occasioned by French astronomers of the Enlightenment decades. By the time the Jesuit order was suppressed in the third quarter of the 18th century, astronomy had moved into the hands of secular astronomers who embarked on expeditions overseas, to either India, China, South America. The perseverance of the Jesuits though never acknowledged, would echo in the Laplacian synthesis of celestial mechanics. And even though the images of India communicated by Jesuits would endure in the history of science, the labours of the British Orientalists would alter the terms of the discipline, such that Orientalism itself would become a discourse constitutive of the history of science in the 19th century.

Appendix 2: Glossary of Astronomical Terms in the Text

Celestial meridian: a great circle on the celestial sphere, passing through the two celestial poles on the observer's zenith.

Ecliptic: the apparent annual path of the sun among the stars; the intersection of the plane of the earth's orbit with the celestial sphere.

Emersion: the appearance of a celestial body after and eclipse or occultation.

Immersion: the disappearance of a celestial body either by passing behind another or passing into another's shadow.

Meridian altitude: the altitude of a celestial body when it is on the celestial meridian of the observer, bearing 000° or 180°.

Meridian passage: the passage of a celestial body across the observer's meridian.

Meridional: pertaining to longitudinal movements or directions that is northerly or southerly.

Meridional difference: the difference between the meridional parts of any two given parallel latitudes; this difference is found by subtraction if the two parallels are on the same side of the equator, and by addition if on opposite sides.

Metonic cycle: a time period of 235 lunar months, or 19 years 11 days; after this period the phases of the moon occur on the same days of the month.

Obliquity of the ecliptic: the acute angle between the plane of the ecliptic ande the place of the celestial equator, about 23°27'.

Sidereal month: the time period of one revolution of the moon about the earth relative to the stars, this period varies because of perturbations, but is less than 27 1/3 days.

Sidereal year: the time period relative to the stars of one revolution of the earth around the sun; it is about 365.2564 mean days

Synodic month: a month based on the moon's phases

Notes

[This paper is the preliminary portion of a larger study on India in the landscape of Enlightenment historiography of sciences. I take this opportunity to thank Jean-Marie Lafont of the Centre de Sciences Humaines, for introducing me to the Jesuit archive at Vanves, and helping me out with 18th century French, where the French-English dictionaries failed me, Catherine Jami of REHSEIS (CNRS), Paris, for her heip with the Duchamp manuscript, and her own insights on the science of the Jesuits; S Irfan Habib of NISTADS, New Delhi, for his ready discussion, Jacques Pouchepadass from EHEIAS, Paris, for acquainting me with the *Lettres Edifiantes* and the work of Sylvia Murr.]

1 An important work from the end of the 17th century published by the L'Imprimerie Royal in 1692 is *the Observations Physiques et Mathematiques pour servir a l'Histoire Naturelle Envoyees des Indes et de la Chine a l'Academie des Sciences a Paris.*

2 Joseph Needham has chronicled the contributions of the Jesuits in China to the emergence of French science [Needham 1959].

3 Historical astronomy is a term employed by Han, that we shall attempt to elaborate later in the essay.

4 One of the first astronomical texts produced in French based on a collection of Sanskrit astronomical manuscripts is that of Abbe Guerin that appeared in 1847, and he mention that he was aided in his efforts by member of the Asiatic Society, Calcutta.

5 For example, the arrival of the French "King' Mathematicians" in China precipitated an acut conflict between the French Jesuits and th already resident Portuguese Jesuits. Jami write "what in Europe was an attempt to brea Portugal's monopoly of the sponsorship o Asian missions on the one hand, and a conflic of power between Paris and the Vatican for th control of church institutions on the other, wa reflected in China by a split between Frencl and Portuguese...Jesuits" [Jami 1995:496].

6 For a study of the image of India in th accounts of the Portuguese Jesuits se [Bouchon 1988].

7 A 19th century account of the French mission in India is to be found in the well know [Launay 1898], and draws upon the archive of a number of missions.

8 A 19th century account of the French mission in India is to be found in the well know [Launay 1898], and draws upon the archive of a number of missions.

9 See the letter written by Pere Papin to Pe le Gobien, also of the Society of Jesus, fro 'Bengale' on the December 18, 1709 [*Lettre*. Tome 11: 202-209]. The letter is a descriptio of the textile and mechanical arts of Beng as well as contains a description of medic practices. This is followed by a second lette dated 1711 and sent from Chandernagor detailing the medical practices encounter in Bengal [*Lettres*, Tome 11, 209-215]. Th interesting feature about the letter is th comparative perspective adopted in narratin these practices

10 The paper by Forbes chronicles the era of th Portuguese Jesuit astronomers in India durin the 16th and 17th centuries.

11 Much later D'Anville recalculated the longi tude of Delhi with respect to the meridia of Ferro as 94° 54', while Boudier's valu was 74° 54' with respect to Paris. Similarl for Chandernagore D'Anville give Boudier's value with respect to Paris as 86 5' [Sen 1982: 7].

12 Much later, with the rise of British Orientalism Sanskrit was considered in an analogou relationship to the Indian vernaculars as Gree and Latin were to the European ones. Thus the focused their explorations on ancient Sanskr literary, philosophical and scientific work and their privileged interlocutors were the 'subcontinental counterparts', the brahmin who mastered Sanskrit [Raj 1996, 288].

13 Sharma mentions a letter from the Portugues Jesuit Figuerado that discusses Copernicu This letter appears in the 1781 edition of th *Lettres*, but is not found in the 1810 editio [Sharma 1982: 352]. This is interesting fo one of the leading Jesuit scientists of the 18t century Ruggiero Giuseppe Boscovich (1711 1787) played a significant role in revising th eclesiastical hostility to Copernicus astronomy.

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The Great Indian Novel

Reflections on the Lentin Report

Shiv Visvanathan

More than the novel or the pamphlet, it is the bureaucratic document, as expert's report or as a commission of enquiry, that has captured many of the great dramas of the 20th century. It is these reports that will survive as the archives of democracy in India. The Lentin Report on the deaths due to contaminated glycerine at the state run J J Hospital in Mumbai is such a document, a contender for the Great Indian Novel. The report examines four institutions, the hospital, the industry, the Food and Drug Administration and the politician, in painstaking detail showing how individual acts of corruption, each insulated in itself, together led to the tragedy. And, typically, its findings lie unattended till today.

I

THE facts are simple. Bhaktavar Lentin, a judge of the Bombay High Court, was appointed to head a Commission to investigate the death of 14 patients in January 1986 at the J J Hospital, Bombay. But facts as journalese are not enough. *The Lentin Report*[1] demands a deeper meditation. We have to understand why a monograph replete with technical details on everything from chemistry to promotions has become a contender for the Great Indian Novel. To understand this we have to begin by viewing the bureaucratic report as a literary form.

II

Literary genres like poor relatives can be subject to benign neglect. While the bureaucratic report is one of the great literary forms of the 20th century, it has not received its due from critics. Great critics from Lukacs and Bakhtin to Watt and Rene Girard have celebrated the novel, waxing eloquent about its varieties of time, its multiplicity of voices.[2] In a fundamental way the novel is a tribute to that great historical archetype – the bourgeois and his favourite site, the city.

The clerk as archetype has had his Kafka and his Balzac but the bureaucratic report has yet to find a critical genius, an equivalent of a George Steiner or a Hannah Arendt. This is crucial for more than the novel, or the pamphlet it is the bureaucratic document, as expert's report or as a Commission of Enquiry that has captured many of the great dramas of the 20th century. Whether it is the future as heuristic, the process of planning, the genocides of development, the multiculturalism called the UN, it is the report that has been iconic of these events.

The Bureaucratic Report performs a second and more parochial function in the Indian context. One genre of writing that India has virtually missed out on is the detective novel. The writings of Conan Doyle, Poe, and Georges Simenon are meditations on murder, crime, scandal. They see murder and crime as processes of disordering which the detective restores through the investigative act. For the detective, the equation is clear, Truth = Justice + Rationality. The detective novel operates at the level of the individual world. One looks for a motive, and a weapon. The structure of causation is direct. The plot is generally a series of dyadic encounters. The detective reserves the right to interrogate the various characters and through the interrogation he recreates the rationality of the modern world. The closest one gets to such a situation in India is in the encounters with the lawyer, the policeman and the doctor, the trio of professionals who thrive through interrogation. The nearest approximations to the detective story come through narratives around these three characters. Initially one was puzzled as to why detective fiction as a genre didn't thrive in India. But when one thought it through, one realised that the detective story exists in a transformed way as the Commission's report.

The Commission's Report is both a detective story and a sociologist's investigation. It interrogates both the individual and the system. Secondly, there is a quality of everydayness that the report has, a mundaneity which even the best of Simenon lacks. Crime in one is individual and even individualistic Corruption in the other focuses on the individual but also creates a chain of being. The report suggests that even evil is a collaborative act which participates in the division of labour.

The Report explores a second kind of murder, a crime, a scandal which implicates not one man but a network of people. Some may not even know each other but all are implicated in the crime. True, the act of death may have a presiding genius but he is only first among equals. What one has to confront is a network of acts, events, emotions, indifference, error, mistakes, cheating, incompetence, imposture and all woven together. Each might actually be an isolated act and eventually what connects them is only the narrative. It is the story that implicates all.

There is an imperiousness to these narratives but it is not the imperiousness of kings or of the cartesian detective. It is the imperiousness of democracy asking for an account, an accounting and an accountability. Number and narrative, numeracy and literacy weave together in these reports. This eponymy of the report is also crucial as importance of the eponymy of scientific discoveries. The labels, the *Kothari* Report, the *Lentin* Report, the *Shah* Commission give it a resonance, a stability, an equilibrium like Chandrasekhar's Limit or the Raman Effect. Like science textbooks there is a realism to these reports, an objectivity and as expert's documents they operate value neutrally. Yet the passion and rage that seeps through them is awesome. Where many of these documents fail is in their sense of ending, the act of closure. They elaborate the spectacle of crime and evil, the theatres of corruption and yet their prescriptions are done with callipers. It is as if the Commissions begin like clerks and experts, metamorphose into diagnosticians of the *polis* and return eventually to the boundedness and neutrality of expertise. The final move is an act of redistancing, a disengagement from the world they have been guiding us through.

Any report appears to have three aspects (1) the factual (2) the normative (3) the pedagogic. There is first the sense of realism, who did what, to whom, when and how? The who-done-it. Then a sense of order or the violation of it. Who broke the rules? Which one and how? Finally there is an act of persuasion, that the normative order still deserves support, still

deserves repair. In that sense every report is a morality play.

The Commissions of Enquiry have thus been pedagogic exercises involved in rituals of restoration. They seek as it were to restore the *nomos* and what makes them really powerful is the rhetoric of normativeness they use so unconsciously. They are obsessive about procedures but it is norms that they are really concerned about. More than the works of journalism or the political theory of academics, it is these reports that will survive as the archives of democracy in India.

These reports presuppose a reader but the overt hospitality, the seductive invitingness of the detective story is missing. They make no concessions to the reader. In fact they surround themselves with a thicket of technicalities, as an initiation rite for those who want to enter this world. But once one moves beyond this, these reports become a celebration of a civics, a *polis*, a moral world. In that sense they are stories that every child should read and every adult remember. From Santham to Chagla, from Shah to Lentin what we have are grand moralists in a world before postmodernism was born. In fact it is the world of crime and corruption that seems postmodern, polyvocal, inventive, chameleonic and to counter them one returns to an old fashioned rhetoric, and old vanguard celebrating their world, its values, their careers and especially their icons with love and integrity. They also seems to say 'We write, let the readers learn to read'. How does one read these texts?

Keith Tester in *The Inhuman Condition* provides a way open even to a general reader. He borrows Richard Rorty's contrast between inspired and methodical reading. He states:

> The methodical reader attempts to discover the definitive and absolute truth of a text (an attempt which is doomed to failure, every reader will discover his or her own truth). The methodical reader tends to place the text under a glass dome in a museum. But, by contrast, the inspired reader approaches the text as something which might change his or her life. An inspired reading identifies a text as a stimulus to creative thought and even action.[3]

In that sense *The Lentin Report* is a book you must read with your children, at least the older ones. Lentin's encounter with each character comes out as clearly as a photograph. Yet there is more. This is not a series of snapshots in an album of homicide. It demands that you talk to the book, engage with it. It is only the social act of hermeneutic, of reading and rereading and remembering that can redeem the senseless death of fourteen innocent patients.

III
Death in the Hospital

Commission Reports like constitutions usually have preambles. The preamble to the constitution enacts a covenant. It is the creation myth of a political society. But a Commission's Report unlike constitutions do not begin with creation myths. They begin with the moment of the fall, the scandal, the tragedy, the disaster as death, flood, riot, or accident. This serves as the trigger for the Commission which reconstructs these events and restores them to the norms. The Commission's story is the act of healing, a narrative needle stitching up the ruptures step by step. The introduction states

> In January 1986, tragedy struck the J J Hospital. Four departments were affected, Neurology, Neurosurgery, Nephrology and Ophthalmology.... It started with Bapu Thombre. He died on 21st January 1986. He was followed by 13 others. The last was Dawood Dholakia on February 7, 1986. They were all patients in the J J Hospital. They all died unnatural and untimely deaths. The ages ranged from 10 to 76. Two of them were well on their way to recovery. To the astonishment of the doctors, they too died. The common drug administered to all 14 was glycerine, otherwise a harmless drug in therapeutical doses used down the years by the medical profession the world over including the J J Hospital to combat oedema or swelling of the brain.
>
> But this glycerine was not harmless. It was lethal. It was contaminated with diethylene glycol, a deadly poison. As a result, all these patients developed aneuria leading to renal cortical necrosis. It was irreversible. Dialysis was of no avail. They did not ask to be born; they did not choose to die. They died. They died as they had lived, quietly and in poverty.
>
> Little could they know that by their deaths they would arouse an outcry of public indignation which would lay bare lack of probity in public life, malaise and corruption in places high and low indulged in contempt of the laws of God and man. All is over bar the shouting. It is time to pause and forage into the murky waters of lies, deceit, intrigue, ineptitude and corruption to salvage the truth which led to this ghastly and tragical episode.
>
> To that end, insofar as is relevant to this Inquiry, hereunder the set up of the J J Hospital and the sequence of events (p 1).

Justice Lentin's investigation unravels this event through a series of nested frames. First the chemical. Then the medical. Then the organisational. The last is a bit like the map in a detective novel; a prop, necessary in a symbolic sense but not for use. A vestige, a reminder of bigger wider explorations.

Glycerine is a standard drug recognised as such in the Indian pharmacopoeia. For years it has been used to relieve cranial pressure. The drug requires high standards of purity. It must be at least 98 per cent glycerine and not more than 2 per cent moisture.

The drug administered at J J Hospital was not glycerine but diethylene glycol which is drastic on the liver and lethal on the kidneys. Even dialysis is unable to reverse the effects. The doctors who administered the drug did so in good faith. The possibilities of renal failure were distant and the two reported cases (one in 1937 in the US and the other in 1969 in South Africa) were few and far between. In fact the doctors were not even aware of them. What was administered as a standard drug in all innocence resulted in 14 deaths. Yet, innocence, as Lentin discovers is a strange word. It is the white that hides enormous shades of grey. It is prim and official, to be worn like a mask to hide the secrets of the soul and it is with this perspective that Lentin studies the hospital.

Before we proceed we must emphasise something. Weaving through the tropicality of corruption that constitutes the core of the report, one forgets the victims. Here the victims are mere bodies. They died but there is no meditation on death. The report, like the detective novel, seeks to elude death by unravelling a homicide.

Lentin's foray into J J Hospital becomes an epitaph for a generation. J J Hospital could be urban India in its potential, its arbitrariness, its dankness, its cramped rooms, its seedy storage places, a factory demanding herculean hours from nurses who had to climb three to four floors half-a-dozen times during a shift because there were no lifts. It was still a great hospital but like most Indian institutions on the decline.

A hospital is a system of care and communication, and so the first question Lentin asks is: what happened when the doctors discovered they had administered a contaminated drug? The answer was disturbing. As Lentin notes, it "makes for startling reading" and he adds, "difficult though it may be... I shall endeavour to speak in measured terms and restrained vocabulary in deference to their noble profession".

The Dean, Dr Chandrikapure, admitted that he did nothing when he received a

Figure

Ganesh Chemicals	H M Chemicals	Kailash and Co	Alpana Pharma	CHEMMED	J J Hospital
Proprietors					
Jethalal Soni Proprietor	Mahender Doshi	Giridhar Kasat and Brothers	O P Ladda/ R L Karwa	Sipahimalani	

phonecall from the department of nephrology informing him that they suspected the administration of a contaminated drug to be the cause of the deaths, he admitted he did nothing. "It was his day off, so he did nothing (p 33). Despite the seriousness of the situation, the Dean did not visit the hospital on the lame excuse that there were competent people in the hospital to handle the situation. He did not even telephone the Head of Departments or any doctors to narrow down the suspect drug". For two vital days, "while the drug was still being administered the Dean enjoyed his holiday and did nothing. Rome burnt and Nero fiddled"

The story of the hospital superintendent is equally startling, even more bizarre. As Lentin remarked "His course of conduct like the Dean's borders on the grotesque" Like the Dean, Dr Deshmukh lived on campus but when informed of the deaths he stayed at home stating "that every death that takes place is no signal for him to rush to the hospital" and that "there was nothing he could have done about the deaths which had already taken place". Lentin reports that the next day was Republic Day. So dutifully the two doctors went for the flag hoisting. "Neither the Dean nor the Superintendent did anything to identify the drugs or withdraw them"

Their first act was belated routine circular on January 27 without any effort to follow up. The Dean explained to the Commission that he considered the death of five patients from drug reaction as statistically normal. He added "over five patients would be a serious problem" But then claimed later that "if a drug is contaminated, spurious, adulterated or otherwise substandard, he would consider even two cases of reaction to be a serious problem". He tried to explain away his role as merely clerical. Lentin adds that the doctor knew the medical store which was supplying drugs was open, yet did nothing (p 37).

It was not only the doctors who were negligent. Lentin discovers that the pharmacist too was guilty. Jamadagni, the pharmacist, was among the first to know about the gravity of the situation but did nothing. "It was Saturday the 22nd and yet on that date he shut shop as usual at 12 noon and went home. Even on the 27th when he got a notification that he should notify the wards and stop the use of 3 suspect drugs, Jamadagni did nothing'. Lentin remarks that on the morning of the 27th, he had issued "25 fresh bottles of glycerine" and yet even after receiving the circular, he did not recall the bottles. There is an even more bizarre fact. The haphazard and bizarre way in which the pharmacist maintained his records left an even more tantalising question unanswered. "To this day there is no complete account of the withdrawal of Batch 27 which can be accounted for". The commission discovers something even more startling. Reviewing the procedures for ordering drugs, Lentin realises that pharmacist had violated the rules of quota, and ordered excess bottles from the company Alpana Pharma. Lentin comments "Alpana Pharma was given the order far in excess of the requisite 11 per cent. If this had not been done, perhaps Batch 27 would not have been ordered by J J and lives in the hospital might have been saved, albeit lost elsewhere...".

The Commission then asks: "Why this warmheartedness on the part of Jamadagni toward Alpana Pharma? Was it love? No. Was it friendship? No. Was it ignorance? No. Was it a mistake? No. Was it stupidity? No. Was it the old adage – you tickle me, Toby, I tickle thee? Perhaps the question best answers itself" (p 76).

The Lentin Report smacks of literary allusions. In a strange way it is a very British document. In fact one sees an inversion. When one reads the great colonial reports, one sees an attempt to grasp the tropical, the oriental, the native, the exotic. With independence came a new genre of reports written by Indians and many of them were immaculately British in style. In fact, *The Lentin Report* could have been only written by someone raised on Dickens and Shakespeare. It is these literary giants who provide the archetypes, the metaphors with which Lentin approaches corruption.

It is in unravelling the procedures for the ordering and purchase of drugs that *The Lentin Report* begins a pilgrims progress, a bureaucratic equivalent of tinker, tailor, soldier, spy. Lentin traces a trajectory through doctors, compounder, nurse, businessman, clerk, politician, all the accoutrements of a city. The text has all the visuality of old daguerreotypes.

We encounter first the clerk. The clerk is a bizarre magical figure. It is in the world of rules that every clerk becomes a magician, determining what is real or not. The clerk is a figure that subverts the Weberian bureaucracy Max Weber wrote about the bureaucratic organisation as one most powerful of human creations In his ideal typical portrait he talked out its division of functions, its impersonality, the clarity, the hierarchy, the importance of written communication. The clerk subverts it all turning a transparent organisation into a magical and occult one. Weber would have wept at the Borgesian turn the clerk gave the bureaucracy.

In reviewing the procedures for purchase Lentin unravels this surreal world. The Commission discovers that ten meetings were held about tenders between July 11 and 25, 1984. The members present included representatives of the FDA, the directorate of industries and the professors of pharmacology at J J Hospital. The Commission notes:

> Decisions taken by the Committee members were not contemporaneously reduced to writing. That was done later and never signed on the same day.. No minutes of the meetings were kept, hence there is no written record to show what actually transpired . The comparative statements do not bear the dates of the decisions taken or even the dates the decisions were signed . . Meetings were on from 11 a m to 5 or 6 p m daily with the conventional breaks 50 items were discussed at each meeting, making an average of 8-10 minutes per item By the time the last item came, everyone was not unnaturally in a hurry to depart The procedure was that the items were called out serially, but only one comparative statement was placed before all the members; no copies made available for their benefit The comparative statement remained with the Director of Industries and was not circulated amongst the Committee Members, with the result that they had no means or manner of knowing or recalling beforehand the names of the tenderers or the viability or otherwise of the drug concerned. However files of the tenderers were kept ready for perusal of the members, in case they desired to see them. From the record it does not appear that any member expressed a desire in that direction.. . Everything hinged on a mere visual observation of the sample, the container and the label Decisions taken were not written down there and then – that was done the following day or a few days later. These decisions were thereafter sent in bulk to the members for their signatures. It is difficult to envisage how after a space of time, all the members

would remember all the decisions taken. The above aspects emerging from the evidence of these witness indicate the slap-happy and totally unsatisfactory procedure adopted at the Committee Meetings where medicines and drugs including life saving drugs were selected for being administered in government-run hospitals (p 80).

In tracing how Alpana Pharma received the contract despite giving a conditional tender, the Commission discovers the macabre role of the clerk Torvi, an industries department officer. Alpana Pharma was listed at serial no 5 for discussion. Enter Torvi and presto four contenders disappear from the list and become non-persons. All Torvi is required to do is mark NTS in the column next to the contenders. "In the remarks column, a brief noting was made if a tender was rejected, that noting whatever be the reason for rejection, was a mere NTS -- an abbreviations of not to specifications (which might mean anything) – but the actual reasons for the rejection were never stated". NTS was a magical wand in Torvi's hands (p 81).

Alpana Pharma was not even eligible to apply for the contract because it was only a repacking firm and neither an authorised distributor, agent or manufacturing company. It did not even have a mandatory research laboratory for testing drugs. The Commission observes,

Circumstantial evidence does indicate that Alpana Pharma had, as stated earlier, some protective and interested guardian angel in the Industries Department to look after its well-being. There is no reason why obvious deficiencies should have been allowed to pass muster or why they should have been allowed to be 'cured' at a later stage, to wit, the lack of income-tax clearance certificate. There is on record a certificate dated 1st August 1984 from the General Manager, District Industries Centre, Nanded. It is a strange certificate. It says that Alpana Pharma 'has gone into initial repacking of pharmaceutical products w e f 26th April 1984'. Apart from the fact that Alpana Pharma had not done anything of the kind, it is a matter of bewilderment how this certificate given in August 1984 should have found a place on the record of the Committee during its meeting in July 1984 when Alpana Pharma had already been selected for the contract. No explanation has been forthcoming for this amazing who-done-it... No doubt Alpana Pharma was a favoured 'customer' in the Industries Department. Why should this be so unless there was a strong motivation for someone in the Industries Department? Corruption is manifest... To that end the strongest motivation was on the part of the Industries Officer Torvi as is clear from his evidence Torvi scrutinised the tenders. Thereafter Torvi prepared the scrutiny sheet. The documents remained with Torvi. It was he who belatedly accepted in June 1984 Alpana Pharma's income-tax clearance and SSI registration certificates which Alpana Pharma was bound to file with the tender on 27 April 1984. No doubt, this was done by Torvi in order to make sure that Alpana Pharma's tender should not be invalidated at the threshold for the lack of these documents. Torvi also knew that a conditional tender had to be rejected. Even so he allowed Alpana Pharma's conditional tender to pass muster. In the Comparative Statement prepared by him he did say that the tender was conditional. That by itself does not indicate honesty of purpose on Torvi's part. He did so obviously to safeguard his own position, as a conditional tender was bound to come to light sooner or later (p 84).

The Commission asks "Pray, why would Torvi go out of his way to do all this. It is here that the entry for Rs 500 shown as "tender expenses CSPO" in Alpana Pharma's account book assumes significance. On the showing of Alpana Pharma's partner O P Ladda, this entry though made under date May 19, 1984 should have been made in April. That was the month when Alpana Pharma filed the tender. The "tender expenses CSPO" appears to be an euphemistic way of denoting a bribe. In April who could have been bribed? Some one who would not scuttle Alpana Pharma's tender at the very outset for its obvious and patent defect. Who could that someone be? Who other than the one person in whose hands lay the power to invalidate that tender? That person was officer Torvi."

The Commission then proceeds to unravel the parallel lives of Dr Kulkarni, professor of pharmacology at J J Hospital.

From 1972 until February 13, 1986 Dr Kulkarni was attached to the J J Hospital as Professor of Pharmacology except for a period of one year in 1976-77. From 1972 he was a member of the Drugs Selection Committee except in 1976-77 when he held an identical post at the B J Medical College, Poona. He was a full time Government employee. His last awn monthly salary was Rs 4800 inclusive of non-practice allowance of Rs 600. According to him, this was his only source of income coupled with remuneration for examining papers of Ph D, post graduate and other students... While he was Professor of Pharmacology, he started two units for doing research work in the J J Hospital, namely Unit I (Clinical Pharmacological Unit) in 1969 and Unit II (Dr R D Kulkarni Research Unit) in 1972-73. Dr Kulkarni was the Director of both units. The patron of Unit I was Hoechst Pharmaceuticals with an annual grant of Rs 1,00,000 to Rs 1,50,000 to cover expenses. The patron of Unit II was Himalaya Drug Company with an annual grant of Rs 1,00,000 to cover expenses. The expenditure of these units was budgeted. Unit I had an account with the Syndicate Bank in the name of 'Clinical Pharmacological Unit, Grant Medical'. This bank account was operated jointly by Dr Pinto Pereira of Hoechst Pharmaceuticals and Dr R D Kulkarni. Unit II had a savings account with the Maharashtra State Co-operative Bank, Opp J J Hospital in the name of 'R D Kulkarni Research Account' Indisputably these units were controlled by Dr Kulkarni as is manifest from the fact that after he left the J J Hospital in February 1986, both Hoechst and Himalaya terminated their agreements. For the purpose of the present inquiry, we are concerned with Dr Kulkarni's manipulations in the savings account of Unit II which was operated by him alone. As will appear presently, from this account large amounts aggregating to about Rs 2,00,000 were received every year and large withdrawals in cash or by cheque were made including certain withdrawals which on Dr Kulkarni's own admission were his personal with awals, having nothing to do with Unit II. No account books were maintained and no income-tax returns were filed.... In 1982, bio-availability data study work was done in Unit II by Dr Kulkarni for Artichem Laboratories, Pune. Since then he knows Artichem's partner Ramanlal Karwa. On 30 May, 1985 Artichem issued a cheque for Rs 18,000 in favour of R D Kulkarni Research Account. This amount was deposited by Dr Kulkarni in the savings account with the Maharashtra State Co-operative Bank. This amount is said to have been legal payment for certain bio-availability data study work done by Dr Kulkarni for Artichem in 1984. However as will be shown presently, it was nothing but a consideration given to Dr Kulkarni by Ramanlal Karwa to ensure the passing of Alpana Pharma's tender by the Drugs Selection Committee of which Dr Kulkarni was a member. That is how Unit II's savings account in the name of 'R D Kulkarni Research Account' solely operated and controlled by Dr Kulkarni comes into the picture... Dr Kulkarni pontificated that this savings account in the Maharashtra State Co-operative Bank was not his personal account and no personal expenses were met by him from that account. This will presently be shown to be utterly false. He knows a person by the name of Karwa, but initially sought to distance himself from him by professing not to know his first name. He professed not to have remembered Artichem's name that morning when he gave his evidence

or even that it is situated at Pune, even though specifically asked, but suddenly remembered it when Artichem was mentioned in connection with Karwa. Thus after such and similar calculated and pathetic attempts to distance himself from Ramanlal Karwa and Artichem, Dr Kulkarni ultimately admitted that Ramanlal Karwa is the same person connected with Artichem Laboratories for whom Dr Kulkarni had done bio-availability data study work in 1982 and who had met him in 1984 for the same purpose and that it was the same Ramanlal Karwa and the same Artichem from whom in the past he had received payments in the vicinity of Rs 30,000. Initially Dr Kulkarni was categorical that receipts were always given to parties making payments for the bio-availability data work done by Units I and II, that such payments would be recorded in the account books maintained by the Unit concerned and that a regular account projectwise was maintained He soon had to swallow these sanctimonious sentiments when he had to admit to the contrary, namely that he did not prepare yearly account so as to tally it with the bank account, nor was any account maintained in the form of a ledger, cash book or journal and that the accounts allegedly maintained have not been shown by him to anyone...Dr Kulkarni's statement that the savings account in the Maharashtra State Co-operative Bank was never treated by him as his personal account was demonstrably untrue from his own admissions that a number of withdrawals had been made by him for his personal expenses, to name a few, payments to the Diners Club, the CCI, to George Motors for repairs to his personal motor-car, Rs 15,000 to a builder towards the construction of Dr Kulkarni's bungalow at Pune and electricity bills.... None of these amounts and many more, did R D Kulkarni ever think of putting back into this account. And there was reasons for his not doing so; because he treated this account as his secret undisclosed personal account, which indeed it was (Amalgamated from pp 91-93).

The final question that one needs to ask is what did the other members of the Commission feel? Assistant Commissioner Rayakar admitted he had not read the pages fully or scrutinised them with care. It was then discovered that Rayakar was a student doing his M Pharm in the Pharmacology department where Kulkarni was a professor. Given this he behaved like a mere figurehead at the meetings allowing Dr Kulkarni 'to lead him by the nose'.

Dr Mistry, another member of the Committee admitted to being casual. He was virtually a rubber stamp. In fact what is interesting is that Mistry could hardly remember the details of the meeting. Nothing like a touch of amnesia to erase guilt.

IV

In the novel, the hospital like the ship or the castle is a self enclosed space within which the detective can detect a crime. Hermetically shut off by storm, snow, sea or moat, these spaces resemble the space of the controlled experiment. The brilliance of Lentin lies in opening out this space. The frame of the report changes. We are not tracking one murderer in a self-enclosed locale, like murder in a mansion, a ship or a tourist hostel. The site opens as we leave the hospital and trace the moral career of the drug across the city.

Justice Lentin takes four institutions each a specific and bounded domain, each a web of silence and amnesia, and connects them. The four structures are the hospital, the industry, the Food and Drugs Administration (FDA) and the politician.

Reading these pages one is reminded of John Donne's oft quoted lines "No man is an island. Ask not for whom the bell tolls, it tolls for thee." And in that lies the fascination of Lentin. He shows how each individual act of corruption, insulated in itself creates a chain reaction that leads to 14 deaths. Yet what is interesting is that no one owns up. There is only amnesia, erasure or evasion. Lentin forces everyone to remember. Even if there is no guilt, no atonement, he connects them all into a great chain of murder – indirect, random and almost desperately meaningless. The victims are incidental to the murder. It was random. It could have been anyone, *anyman, everyman*.

Lentin discovers a second fact, that the moral universe around these structures does not exist. There is the event and there is a public outrage but eventually it has all the excitement of a monsoon shower. In fact, it is Lentin's narrative that creates the moral world. *Lentin's Report* by linking them, asking them, talking to them, implicates all of them.

Lentin wants you to experience the events, live through each decision not in terms of motivations or intentions but consequences. Each little cameo is petty, even sterile. What bare drama there is lies in the erasing of a diary, lying about some petty event, or the simulation of amnesia or misunderstanding. Corruption to be understood needs a sense of connection. There are two ways of conceptualising this, two notions of connection, of hierarchy both captured in folklore. You can read it forwards like 'The House That Jack Built'. 'This is the rat that ate the malt that lived in the house that Jack built. This is the cat that ate the rat that ate the malt that lived in the house that Jack built'. Or more puritanically the old folk poem, 'For want of a nail a shoe was lost. For want of a shoe a horse was lost'. Children have this sense of the oceanic circles. Remember how as children we drew the name, the house, the street, the city, the region, the world with a here I stand celebration. Understanding corruption requires that sense of connection and consequence again. It is with such a sense that Lentin sets out to connect all the four organisations.

V

Lentin's chapter on the industry begins with a list of *dramatis personae* and as we move across the list of manufacturers, packers, middlemen, we realise that this is not the drug industry in the normal sense. These are not research multinationals with scientific testing laboratories whose antiseptic pallor may hide enormous crimes. Nor are these the local 'dawakhanas' where housewives prepared decoctions with care and skill. This so-called industry could be a set of props, a shadow play where one man claimed to be a packer, another a chemist. It is a bit like the game of passing the parcel, only the parcel happens to be a lethal adulterated drug. The basic sequence was as in the figure.

The making of Batch 27 begins at Ganesh Chemicals Corporation. Jethalal Chaturbhuj Soni is its sole proprietor and he manufactures and supplies what is called 'chalu glycerine'. The 'chalu' glycerine is glycerine for industrial purposes. It is usually classified into two grades, one of which is for the manufacture of writing ink, stamp pad ink, typewriter ink and the other which is used in the textile industry. Neither of the two grades is however fit for human consumption as both contain diethylene glycol.

Soni's *modus operandi* was simple. He brought large drums from hawkers or reused drums in which he received raw material. He painted these 250 kg drums in red and on the lids he stencilled 'Glycerine Not For Medicinal Use'. This was not out of any altruistic reason but to obtain exemption under schedule K of the Drug Act.

A BSc in chemistry from Gujarat university, Soni admitted that his glycerine was not up to ISI standards but was a substitute glycerine. He admitted his product was the result of his own formula and could not be found in any recognised

textbook or Merck Index. In terms of market price, it was 50 per cent cheaper than Industrial White (IW) glycerine.

Now glycerine is a dual purpose item. IP glycerine is produced in terms of the standards prescribed by the Indian pharmacopoeia. For IW glycerine no standards are laid unless a firm claims an ISI mark.

Soni's product was not glycerine. It was a mix of sorbitol and diethylene glycol with a touch of glycerine. Soni "admitted that unless he called his product glycerine, he would not get the same price as he would get merely from the sale of sorbitol or ethyl glycol". He also added that "he never indicated either by any document or on the drum of his product that it was a substitute for glycerine". Nor did he identify the commodity though he was required to do so under the Weights and Measures Act but pleaded "ignorance of the rules framed under the act". Soni also insisted that all his customers knew what his product really was.

Mahender Doshi of H M Chemicals purchased this product from Soni and supplied it to Kailash and Company. Doshi however disclaimed all responsibility by stating he never took responsibility for "the glycerine sold by him" and that "purchasers bought from him at their own risk". But Doshi knew that the product was adulterated. The market price for glycerine was close to Rs 50 per kg and Doshi knew that the glycerine he was purchasing from Soni was a substandard item. Doshi failed to warn his customers that it could not be used for medicinal purposes and in that sense was selling a misbranded drug.

We now come to the role of Alpana Pharma and its patron Ramanlal Karwa. Karwa was an M Pharm from Nagpur University. A student of the 1975 batch, he was fortunate to have as his colleagues several FDA officers. He started a series of manufacturing concerns and one of these was a repacking firm called Alpana Pharma. He appointed Om Prakash Ladda, a cousin of his wife Nirmala, as head. But Alpana Pharma was "a creation and a creature of Karwa". It was established at Nanded, a backward area to avail itself of government concessions.

In March 1984, Alpana Pharma applied for a repacking licence for 212 drugs. In three days the drug inspectors had inspected the unit's premises, and four days later the FDA had recommended a grant of licence to Alpana Pharma, an efficiency that the Commission found 'breathtaking'. Now all one required was a resident chemist and an in-house laboratory.

Om Prakash Ladda in his statement before the Commission admitted that Alpana Pharma had not the slightest intention of setting up a quality control laboratory or to appoint a qualified chemist. He admitted that "such an undertaking was given not because he wanted to honour it but because the FDA required it". By December 1985, he had bought some equipment but with these only two of the sixteen tests for glycerine could be performed. In fact these two – the colour and the description test – did not require any equipment at all. The Commission's evaluation of Ladda is devastating.

> To start with, he admits that before he started his repacking operation, he did not draw any sample from the two drums received by him, nor did he send any sample from these two drums for analysis. Negligence. Though according to him, the repacking from these two drums was done under his personal supervision, he admitted that he did not examine the actual contents of the drums before commencing the repacking process. Negligence. The excuse given by him that it was not possible to do so while the glycerine was actually in the drum, is too absurd to countenance. He stated that when he was repacking this glycerine it was colourless and did not smell of burnt sugar. This is false because the Government Analyst's report reveals that the glycerine was pale yellow in colour. This shows that O P Ladda had not bothered even to see what his casual labourers were repacking. He admitted that between the time that the glycerine was repacked and the sample sent to the Government Analyst, it did not change colour because glycerine does not change colour. He also agreed that pure glycerine is odourless whereas the report of the Government Analyst showed that the sample smelt of burnt sugar, that chemical odour would not generally be of burnt sugar and that he has never come across a single instance where glycerine used for medical purposes smelt of burnt sugar. These admissions are further pointers that the repacking was not done under O P Ladda's supervision, his protestation in his evidence to the contrary notwithstanding. If only O P Ladda had taken the elementary precaution of seeing what was being repacked instead of leaving the operation to his casual labourers, he would have realised that what was being repacked smelt of burnt sugar and even lacked the colour of glycerine. This should have put him on his guard. Thus even this elementary care and precaution O P Ladda did not care to take. Negligence.... Thus it was only on January 29, 1986 after the J J Hospital tragedy, it dawned on O P Ladda that what he had repacked was not for medicinal use. Even so, and though indisputably his Batch No 24 also contained diethylene glycol, he did not take any step to inform any of his purchasers about this.

But it was not only a case of negligence. O P Ladda was a conniving unscrupulous man. He realised that he needed certificates which showed that his samples had been tested. So Ladda sent samples for analysis which did not have any relation to the one which he was ultimately going to purchase. By this jugglery, he was always one step ahead and did not have to wait for the analytical report, as an advanced sample was sent for analysis of a batch yet to be received or purchased for (p 163).

Realising the sequence of events, this nexus of four firms decided to absolve themselves of their liability by framing another firm. They entered into a conspiracy to forge invoices and other documents to show that the drum was obtained from Edgar Hanley and Company. They claimed that the two 250 kg drums were actually stored in that Company's warehouse, a ruse that fortunately failed to work.

The Commission noted that all the four firms were responsible. Doshi, Kasat and Ladda knew that the concoction was adulterated but the evidence did not establish that they knew it was diethylene glycol. They were merchants in adulteration and merchants of death but the Commission reluctantly held that they behaved "without intention of causing death".

There was a last irony. Under the Indian penal code the punishment for such grave crime is only two years imprisonment, but spotting a ray of hope the Commission noted that the penalty for manufacturing, sale and distribution of drugs in contravention of Chapter V is five years extendable to life. It recommended that Soni, Kasat, Doshi and Ladda be prosecuted under the second statute.

The Commission then investigated the laboratory in question.

Chem Med was one of those lovely structures out of a macabre *Alice in Wonderland*. Established in 1961, it had 300 regular clients and a 1,000 casual clients. The glorious history of Chem Med makes fascinating reading. It prepared about 1500 failure reports every year. Under the rules these reports had to be submitted to the FDA. However Chem Med avoided this through a simple ruse. It reclassified these as reports on 'experimental samples' because such reports were not required by the FDA. As a result only 5 to 10 per cent of the samples analysed were declared as substandard. Interestingly no record of substandard samples was maintained.

Chem Med received its samples from Alpana Pharma and commenced work on

November 8, 1985. The work was done by Rekha Pai, a trainee who admitted that she 'would not have been able to do her analysis work on her own'. Glycerine to qualify for the IP grade requires sixteen tests and Chem Med certified that Batch No 27 had cleared all (pp 173-75).

The Commission notes that not only did the FDA's initial reports challenge this but that Chem Med's general record persuaded one in this direction. The latter indicated three possibilities: (a) that the tests were not carried out; (b) that if conducted, they were not carried out properly; (c) that in any event in order to avoid displeasing the client standard quality reports were typed out and sent to Alpana Pharma. But either way one thing is clear. Chem Med's reports 212/213 on Alpana Pharma's Batch 27 were 'false and bogus'.

Chem Med were masters at this game. As Lentin observed "Chem Med is proud possessor of a previous history of manipulating reports and with the benevolence of FDA virtually getting away with it". In a rare burst of candour Chem Med's managing partner Sipahimalani disclosed the secret of keeping FDA officials "happy and purring with contentment". He described it as an 'exercise in spreading happiness and contentment among FDA officials'.

The Commission held that in fact "any upright FDA officer immediately on receiving Chem Med's reports and protocols ... would have vigorously proceeded against Chem Med including listing it as co-accused". None of this was done thanks to high ranking FDA officials, "two powerful officers who bestowed their benevolence on an erring analytical laboratory", but 'surely not for love'.

The Commission's investigations of the laboratory reveals the only person who felt guilt during the entire proceedings. Rekha Pai was a student trainee chemist who discovered that she had 'analysed' Batch 27 while working at Chem Med. She left the 'employment of Chem Med after she read in the newspapers about the J J Hospital deaths as a result of glycerol certified by Chem Med... Being a very emotional person she was extremely upset when she read this and gave up her chosen profession as a trainee chemist and has since then not taken up this profession". Rekha Pai became a receptionist at Hinduja Hospital. But even Pai fobs off her responsibility on to a senior chemist. Unfortunately she blamed one who was not even present on the day of analysis. But in the entire report she stands as the one person who admitted to a sense of remorse and guilt.

Struggling with these reports one also senses that everyday modern technology – in medicine, transport, housing – is seen as outside the ethical framework. It is not the old idea of the immediate visibility of cause and effect. There is somehow a sense that a wrong chemical result, or a substandard drug are things floating in air. There is no notion of responsibility attached to them. These individuals may be horrified by one murder but a statistical trend is seen as abstract. Adulteration of a drug is seen neither as a technological or moral failure. It seems to float unconnected, disembedded, without ganglions of responsibility.

This is why there is an almost complete absence of horror among the witnesses, or even guilt. They read death as if it were a mistake in traffic signals. The right word, the right signal can erase the crime. Moral responsibility in an impersonal sense does not seem to exist. You have no rituals for it. Morality is for friends, classmates, neighbours, ancestors. They are ritually tied into a concrete frame. A consumer, a potential patient, are remote categories, unless the consumer or patient is a friend or neighbour.

In fact there is a sense of anomic about these domains. The reader feels he is traversing a no-man's land or a fragment of absurd drama. By this time he realises that not one of the people investigated accept guilt, feel grief. What one encounters is evasion, erasure, indifference, amnesia. There is a sense that one is traversing spaces where no one cares. It raises two sets of difficult questions. Is there something about these spaces that makes them amoral? Has modernity, especially through the creation of bureaucracies, altered the moral universe?

There is a quiet sense of evil which increases as one enters the FDA. It is here that *The Lentin Report* creates both a sense of despair and dread. There is a process of dehumanisation that leaves Lentin helpless. It is as if a framework of ethical relationships has collapsed especially in the bureaucratic domain. What is worse rules and procedures are turned into facile meccano sets for manipulation.

Lentin's motto is like Richard Hoggarts' famous appeal, 'only connect'. For Lentin it is precisely this politics of community that is missing. This report is not only an invitation to be angry but to wonder why we fail to be concerned with other people in the everydayness of bureaucratic life. Here caring is not concrete. It is not X and Y. It could be any member of the alphabet. How do we create caring in this more abstract sense? How do we face up to the amoralism of the bureaucracy?

Years ago Edward Banfield wrote a book on *The Moral Basis of a Backward Society*.[4] In that he coined the term 'amoral familism' which became almost as famous as Oscar Lewis' 'culture of poverty'. Both these concepts however got implicated in the developmentalist discourse with its arrogance, its racism. But there is a core of fruitfulness and truth we might rescue. Banfield who made his studies on Sicily asked himself the question, why do people respond to public spaces in a certain way. He noticed that family spaces were sacrosanct, morally coded but anything beyond is a no-man's land. You keep your house clean but throw garbage across the wall. You donate blood for friend and kin but not to a stranger. Similarly with corruption. You use the bureaucracy to help kith and kin and manipulate the rest of the world. The question one must ask is whether corruption is a part of bureaucratic amoralism, that decrees that any one in instrumental, rational legal space is or can be 'targeted'. One senses this more as one enters the FDA.

VI

The FDA is the controlling agency of an industry with an annual turnover of 2,000 crores. It is vested with the power "to ensure public health and safety by properly regulating the manufacture, sale and distribution of drugs and preventing the manufacture, sale and distribution of substandard, spurious and mis-branded drugs".

The FDA is a gargantuan labyrinth. In Maharashtra itself there were 3,500 licence units and another 4,000 loan licence manufacturers. The latter manufacture drugs in the premises of licensed owners using also their staff. Merely 10 per cent of these units had in-house testing facilities. But loopholes were affably easy as manufacturers were given licences on the written assurance that they would have in-house testing facilities within two months. Inspection of drugs was a herculean task. For instance in the 10,000 sq km in Nanded area where Alpana Pharma was located, one inspector had to look after 306 drug selling units and sixteen manufacturing units.

The Commission considers the FDA at two levels, firstly as an organisation. In terms of a system of rules and regulations, the Commission found little that was wrong with it. Once one of the finest organisations in Asia, it has been subverted to serve the interests of the politician and industry. It is in examining this that the Commission encounters the question of evil in a blatant way and wading through this section one

discovers something disturbing. It is what one might call a Tolstoyean twist to the problem. Tolstoy begins one of his greatest book stating. "Happy families are all alike, unhappy ones are different each in their own way". In The Lentin Report, honest people look alike but dishonest ones are each corrupt in their own way. One feels that goodness follows rules period. It is corruption that seems continuously inventive, even reflective as it plays around with the nature of organisations.

How does one describe the personnel of the FDA? The characters that appear in the story Dolas, Kochar, Bhirud, Kulkarni are each a separate layer, a series of distinct masks, each one more corrupt than the other, all culminating in the evil genius of Jt Commissioner S J Dolas. Let us begin with Kochar. One must see each character as a repertoire of strategies.

Kochar is the diverter.

Assistant Commissioner Kochar of the Intelligence branch knew almost immediately that the prime source of supply was Ganesh Chemicals. While Ganesh Chemicals itself had no clout with FDA, it obtained an advantage because Kochar was determined to save Giridhar Kasat. Instead of taking positive steps to further the investigation, the intelligence officer ordered an investigation into Bakewell India. He simultaneously filed a defective complaint against Alpana Pharma suppressing the fact that it was Ganesh Chemicals that was the prime supplier. In his need to save Kasat, Kochar made a false statement inculpating Bakewell India as prime supplier knowing full that Bakewell's glycerine which came from Italy was not the killer glycerine of Batch 27. Kochar even tried to blame the containers indirectly on the ground that they were made of plastic. Kochar as intelligence officer was "the eyes and ears of the FDA", but he used his skills to suppress investigation and thwart it. The Commission found that Kochar was a past master at this art.

Then there is Tolia.

Tolia is *the tout.*

Associated with two companies – Tolson Drug Laboratories and Atul Pharmaceuticals, he was a habitual loiterer in the FDA. Earlier he used to pack zinc oxide without a licence but the FDA still loved him. In fact when proceedings were launched against him he got Dr Baliram Hiray, the health minister to reverse proceedings and the latter even stated before the Commission that it was done 'to serve public interest". Dr Sane who was the Commissioner of FDA was persuaded to take a lenient view. *Interestingly after Sane's retirement, Tolia provided him with office facilities. Sane started 'a consultancy business in the name of GMP Consultants, GMP standing with unintended irony for Good Management* Practice. He had his office in Tolia's office premises at TV industrial estate. GMP Consultants was merely a facade for Sane's activities as a liaison man with FDA where several of his erstwhile comrade in arms are'. Sane was a weak commissioner who obliged health ministers. He obliged minister Sarnayak by not prosecuting Sakarchand Shah for producing spurious Sulphadiazine tablets and also for with drawing charges against those adulterating groundnut oil.

Then there is Kulkarni, *the facilitator.*

As Joint Commissioner of the FDA, Kulkarni filed charges against Dolas for inefficiency, misconduct, negligence, and insubordination. On the basis of his report, an inquiry were framed. During the course of the inquiry Kulkarni retracted all his charges and Dolas was acquitted. For his achievement Kulkarni was transferred from Nagpur to Bombay as 'a just reward'.

On January 10, 1985, Emcure Pharmaceuticals made an application for additional products. The speed with which the application was processed was intriguing. The application reached the FDA office at Pune on January 14, 1985, the FDA inspected the premises on January 28, *1985, and on the same day the joi commissioner gave his recommendatio On January 29 the papers reached Bomba and N D Kulkarni processed the pape on the same day. Incidentally he retire* two days later and is now serving a consultant to Emcure Pharmaceuticals One could also add that during his caree Kulkarni also helped facilitate the dropping of charges against Cyma Pharma fo marketing substandard drugs, Hem Pharm for producing substandard chloramphenicol tablets, especially as its proprieto "a family friend of the FDA" provided free medical treatment to its officers.

The one meets *the certifier* Bhirud.

S D Bhirud was the first Joint Commissioner and Licensing authority of the FDA. He was the one who gave his imprimatur to all the machinations of Kochar, Dolas and Kulkarni. The Commission deemed that "Bhirud was a total misfit'. He took absolutely no interest in investigating the deaths at J J Hospital. He would blindly sign reports to the government which were tailor-made by Dolas. Bhirud was equally supine to the machinations of Kochar. The Commission noted that 'Bhirud was mortally afraid of Dolas and obediently signed those reports presented to him".

The periodic table of corruption can go on. Lentin classifies them zealously but one name dominates all becoming as the

Commission itself admits, the thread that ties together the narrative, Dolas.

For Lentin evil can not stand exposure; evil is something underground, damp, dark, tropic. Evil has to be confronted objectively and in public. He states "Secrecy breeds suspicion and suspicion breeds contempt". Yet Dolas is one person who threatens to evade Lentin. Behind the judge's apparent disgust is a sense that he has encountered a new species, that Dickens and Shakespeare might need Dostoevsky for a deeper understanding.

Lentin's literary metaphors from the world of Dickens and Shakespeare holds only at the first level. There is a realism, a moral resonance to his language. But Falstaff and Shylock mislead in the world of Kochar and Dolas. The theatres of the medieval world and those of the modern bureaucratic domain are different. Falstaff's attitude to his victim or Shylock's sense of resentment, even revenge, represents a passion of a different sort from the clerks of the FDA.

Dolas seems a blend of Machiavelli and Dale Carnegie, an instiller of fear, meticulous as a miniature. For Dolas, the FDA is only incidentally about medicine. He could easily have been in electricity, transport, real estate. All he needs are the skein of rules and procedures to weave his own special labyrinth. It is almost as if Dolas rewrote the computer programme of FDA to create as Lentin dubs it a world "where good was evil and top was down". Dolas is not a sadist driven by pathology, ideology or passion. All that motivates him is money and power. If he could have sold the funeral commodities to the 14 he would have done so and probably adulterated them also. There is no satiety to it. No target level. Not even a redundancy because each act of manipulation attains a different level.

Lentin considers Dolas' efforts at 'transfers and promotion'. Dolas is a manipulator, a survivor. Out of his 28 years service, he managed to serve 20 in Bombay and four in nearby Thane. His close proximity to power ensured his survival in Bombay. He always knew the right person to approach. He persuaded the Gandhian, Bhaskar Rao Chalukya to put in a word for him with the minister when a departmental enquiry was in progress. Of course he forgot to tell him that the charge was corruption. He approached Shalinitai Patil when her husband was Chief Minister. Dolas was relentless. He superseded four other officers to become joint commissioner. The joint commissioner is the only statutory licensing authority for the entire state. It was solely up to him to grant or refuse licences. It was he who approved of technical staff, layout etc.

During Dolas' term 852 drugs were found to be substandard and the Commission discovers that practically none of them had been prosecuted. It was Dolas who subverted the investigations into the deaths at J J Hospital. In fact in protecting Chem Med, Dolas even states before the Commission that "14 deaths was not really a serious business". Lentin pursues him relentlessly till he retracts the statement. Dolas could blithely claim he had no personal interests in the industry despite his daughter working for a well-known drug company. When Kulkarni filed charges against him for inefficiency, insubordination, indifference Dolas persuades him to retract it and rewards him with a choice transfer. When the forces of law virtually catch with him, Bhai Sawant, the minister transfers him from the department of drugs to food. In actual terms all it meant was moving from one room to another in the same building, "from one bedroom to another" where he could still keep an eye on his fieldom.

The Commission's final comments on Dolas, that 'officer of neuter conscience' are both fascinating and damning.

> Slight of build, soft of speech, initially unperturbed, S M Dolas radiated old-world courtesy; None of this however could disguise the deviation of his mind or his absurd and fanciful pretensions to rectitude. He believed not in force but in subtlety; and he believed he was subtle. That was his mistake. His conduct was as negligible towards the efficient and honest discharge of his duties as his tortuous mind was as Shylockian in its capacity for intrigue. Dolas wielded absolute power in the FDA. Absolute power corrupts absolutely and there is nothing by way of Dolas' activities in the FDA to doubt the authenticity of that axiom. With him in virtual control and Bhirud as his assiduous sycophant and compliant today, the whole order of the FDA corresponded with the rapacious capacity of its members and resulted in the ridiculous difference between their supposed aims and their actual achievements. To Dolas can be attributed the corruption of power reinforced by disdain of consequence, conceived in political patronage and his infinite capacity to use others for the fulfilment of his objectives. It is unfortunate for Bhirud and the FDA and the public at large, that he should have surrendered himself so totally to the disastrous influence of Jt Commr Dolas. If I conclude that in Dolas' moulding hands, Bhirud was a moral coward, Bhirud has only himself to blame for that deliberate revelation. Dolas left the witness-box a deflated man, of cringing manners, indifferent to truth as he was to his duties. It is difficult to see how a man so utterly lacking could even have been thought of to hold charge a post as sensitive as Licensing Authority even for short span of time and with a limited possibility of choice.

VII

Corruption to thrive needs the official imprimatur. The FDA was corrupt but it was a corruption sanctioned and sustained by a series of health ministers. In fact the best way to understand this officialdom of corruption is not to list out the sins of ministers but to understand what happens when an honest man enters the system. Fighting corruption is not easy. How does one reform the FDA?

Probably the one upright man in the upper echelons of FDA was Venkatachalam. He was brought from the IPS to the FDA. His target was Dolas and all he stood for. He said of Dolas that 'his subordinates were afraid of him and that his seniors were in his pocket'. The situation that Venkatachalam faced is described with rare candour in an interrogation before the Commission. Sipahimalani, owner of Chem Med was asked

Ques: Is it correct that in your kind of business you cannot afford to antagonise the FDA officers?

Ans: Yes, I would say that is correct.

Ques. Cancellation of licence or with awal of approval would be a closure of your business?

Ans. Yes

Ques: Is it therefore always better if the FDA officers are kept pleased?

Ans: Generally speaking, yes. One of the ways in keeping them pleased is not to challenge their order

Ques: Are there any other ways of keeping them pleased?

Ans: Yes. Generally speaking if you give them presents or something like that or be a very good host by inviting them to dinners or parties.

Ques: Is the discretion of the FDA officers in granting or revoking licences titled by the hospitality extended to them and the presents given to them?

Ans: That would depend upon the officer concerned.

Ques: By presents do you mean presents in cash or kind?

Ans: In cash and in kind.

Ques: Therefore the more munificent the present, the greater would be their goodwill?

Ans: That would be the general tendency (p 180).

The Commission noted that "This general tendency applies to all analytical laboratories, manufacturers and repackers who are dependent for the licences on the FDA. This answer applies to whosoever has to deal with FDA and other authorities in general".

What Venkatachalam began was a cleaning of the augean stables. He found over 900 applications for licences pending and set a time limit for their disposal. This was resented by FDA officers "for the longer the licences were kept pending, the greater would be the anxiety of manufacturers to strike a bargain with the officers. With one stroke Venkatachalam took away their pickings". Next he drove away the touts and power-brokers including Tolia from the FDA premises. This was resented even more by the officers for as the Commission noted that 'they would be thwarted in their misdeeds without the medium of the worthy gentleman through whom they could establish a monetary dialogue with unscrupulous manufacturers and licence holders'. Venkatachalam added insult to injury by launching prosecutions and reopening files which had been declared closed. One move in particular created great consternation and this was his reopening the file of "the family friend of FDA", Tolia. It was described in 'certain quarters as the unkindest cut of all'. The Commissioner also introduced the system of the maintenance of movement diaries, a hard blow to inspectors who now had to account for their work, movements, and quotas. The industry's response to all this was intriguing. When "Venkatachalam tried to take manufacturers into confidence with a view to know their difficulties" they were reticent. As Venkatachalam explained before the Commission "they said that I was merely a passing phase as Commissioner, whereas they would have to deal throughout with Dolas."

The Commission noted that 'the qualities of efficiency, integrity and independence' were 'the very qualities which in the topsey-turveydom of ministerial interference resulted in his downfall'. It was clear 'that successive ministers didn't want an upright man'. Even worse, 'the entire system, including power-brokers and touts, unscrupulous manufacturers and the FDA officers themselves were against Venkatachalam'. The Commission added that there was as usual "a health minister weak enough to succumb to pressure". Venkatachalam was "inconvenient to handle". What was also ironic was that he was replaced by V C Sane. The Commission noted "It must indeed be the Devil's Delight (to borrow a literary title) that an officer as corrupt ... as Sane should have replaced an upright and efficient officer like Venkatachalam at the helm of FDA". It adds: once Venkatachalam left "the ills which he curbed erupted once again. Those ills can best be compared to wild horses held in check on a tight rein and which go out of control once the rein is loosened. And so it was with FDA."

S M Dolas who had been transferred by Venkatachalam made "a triumphant return to Bombay". Tolia was rehabilitated in the FDA and the prosecution case against him was withdrawn. Maintenance of daily diaries was rendered a farce. The licensing authority succeeded in making a two-thousand crore industry dance to his tune and corruption increased by leaps and bounds'. As one partner in a medical firm put it 'to the FDA officers Diwali comes more than once a year'.

The Commission added that such corruption was made possible by health minister and noted "Health ministers cannot possibly discipline their subordinates, if they themselves commit flagrant breaches of rules and regulations and indulge in acts prompted by extraneous consideration. Corrupt masters make corrupt servants." The roll-call of 'masters' includes the following health ministers – Baliram Hiray, Bhai Sawant, master of transfers, patron of Dolas, Pramila Tople and G S Samayak.

Only a few addendums need be stated. A few loose ends.

The Commission notes that "in addition to the 14 who died, 34 patients who found their way to the nephrology department had been given glycerol Batch 27. They had not died in the hospital." The Commission asks "Are their whereabouts known? Is their condition known? Out of these how many are dead and how many crippled?" The Commission admits that it was not possible for it to trace them or enquire about their well-being. "That is for government to do and to offer them adequate compensation because for no fault of theirs, they were administered contaminated glycol in a government hospital."

In one of the last sections of the Report the Commission ends a discussion of the FDA with this quick sentence: "And thus ends the saga of Venkatachalam". It leaves it for the reader to add 'Dolas still rules'

Notes

1 *Report of the Commission of Inquiry* (Re Deaths of Patients in J J Hospital at Bombay in January-February 1986 due to alleged reaction of drugs [Hereinafter *The Lentin Report*], Government Central Press, Bombay, 1988

2 See particularly George Lukacs, *The Historical Novel*, Penguin Books, Harmondsworth, 1969 and Rene Guard, *Deceit, Desire and the Novel*, John Hopkins, University Press, Baltimore 1969.

3 Keith Tester, *The Inhuman Condition*, Routledge, London, 1995

4 I have borrowed this idea from Pruno Levi *The Periodic Table*, Abacus Books, London, 1985.

Financial Crisis and Elusive Recovery

Lessons from South Korea and Thailand

C P Chandrasekhar
Jayati Ghosh

The current crisis in emerging markets may signify the end of a phase of international capitalism in which deregulation and increased economic integration have led to increased volatility and uncertainty. This article examines – with a focus on Thailand and South Korea – the factors that led to financial liberalisation, the link between financial openness and crisis and the problems that persistence with open regimes creates for efforts to overcome the crisis. The experience shows that developing countries will have to control and regulate capital flows in accordance with national priorities.

IT is now commonplace to date the current economic crisis in south-east Asia from July 1997, when the Thai baht was put on float and quickly depreciated against the US dollar. It is true that the financial contagion that followed led to collapsing currencies and slumping stock markets across the region, and that the real economic crisis appeared thereafter. But signs of impending problems were evident in several of these economies for some months before. In Thailand, for example, there had been speculative attacks on the currency from around August 1996, which were warded off only with great difficulty by the Thai government, and the balance of payments imbalances which triggered such speculative attacks were clear from early 1996 [Ghosh et al, 1996]. The first Thai company to miss payments on foreign debt defaulted as early as February 5. Similarly, in South Korea there were problems evident at least from January 1997, with several chaebols facing difficulties in servicing some of their loans.

Seen in this light, the sheer longevity of the crisis becomes a matter of note. It is more than two years since the first clear signs of crisis, and nearly one and a half years since the full-blown financial debacle. Yet, the south-east Asian region continues to be in the throes of a recession, if not a full-fledged depression, and the desperate search for some straws in the wind that would suggest any future recovery still remains largely fruitless. While the financial indicators that first brought about the crisis have now largely stabilised, the real economic slump is worse than ever. And finance remains the key to understanding both the nature of the crisis and the apparent inability to recover from it.

In this article, we examine the factors that led to financial liberalisation, the link between financial openness and crisis and the problems that the persistence with open regimes creates for efforts to overcome the crisis. In the discussion, we focus on two countries that have come to symbolise the crisis in its various forms, Thailand and South Korea.

Thailand was the first country to have experienced a major financial crisis, and started the downward spiral through contagion in the region. South Korea's economy is entirely different in its structure, macro-economic fundamentals and even in its degree of development, and yet its financial crisis has been remarkably similar. Both countries went speedily to the IMF for assistance, and subsequently both have been exceptionally 'well-behaved' in conforming to the IMF's policy guidelines. Nevertheless, in both countries there have been sharp and continued declines in output and economic activity, and the process of contraction continues even though the IMF has permitted a limited degree of reflation by repeatedly relaxing the budgetary targets it has set for them. Yet the superficial signs of stabilisation in terms of more stable currencies, slightly lower interest rates and less volatile stock markets, have been generated only through a contraction that squeezes large current account surpluses out of economies in severe crisis. The suggestion now is that the region is headed for a 'lost decade' similar to that experienced by Latin America in the 1980s, even though the economic processes involved are very different. This is especially ironic given the extent to which the east Asian region had been touted as the example for other developing countries, including those in Latin America and Africa [see Stein 1995 and Wade 1990, among others].

I
Financial Openness and Economic Instability

Why has recovery proved to be so elusive in the region, and particularly in these two countries? For an answer to that question we need first to look more closely at the nature of the crisis and the particular manner of its unfolding. With the spectre of a financial crisis now haunting Wall Street and the west, even mainstream international opinion, led by the World Bank, is seeing 'premature' financial liberalisation in developing countries, with inadequate supervisory and regulatory institutions as a proximate cause of the crisis. This, together with global capital market imperfections that resulted in surges of capital flow in periods of prosperity and waves of panic in periods when economic fundamentals weakened, are being seen as the factors that led to the east Asian crisis [for a detailed elaboration of this argument see World Bank 1998]. However, this tendency to adopt positions that sound similar to the more radical critiques of financial globalisation that were scoffed at until recently, is accompanied by a refusal to accept at least some of the systemic influences that led up to the crisis. In particular, it is being argued that financial liberalisation *per se* is acceptable so long as prudential norms and guidelines are in place; and that goods market liberalisation, which requires a vibrant export sector to finance a rising import bill, is unequivocally positive. To quote the World Bank: "The potential for all countries to gain from freer trade and from expanded flows of foreign direct investment remains as compelling and valid as ever, indeed continuing to increase with advances in transport and communications technologies. Developing countries

will continue, as in the first part of the 1990s, to see the payoffs of almost two decades of economic reform and structural adjustment." It is to ensure the realisation of those predicted payoffs that the Bank seeks to draw some lessons from recent experience, which diverge from those implicitly drawn by the IMF.

The IMF too has learnt its lessons. It has not only backed a call for "strengthening the international financial architecture", but also cautioned countries against hastening towards capital account convertibility, and chosen to put on hold its call for fiscal contraction in east Asia. The explanations for this superficial change in perspective are not hard to find. First, with the near-collapse of hedge funds like Long Term Capital Management (LTCM) in the US, it is increasingly becoming clear that 'lack of transparency' is not a problem typical of emerging markets but rather is a feature intrinsic to the liberalised and proliferating global financial system. The international banking system, in search of the high returns promised by risky investments, had lent such funds sums that were many multiples of their capital base, and helped fuel a speculative boom in both emerging markets and developed country stock markets. As the expectations on which such investments were made have been belied, there is a real threat of a collapse of the speculative bubble, and even of that collapse driving the developed industrial nations into a deep recession. Secondly, it has become clear that the restoration of at least a semblance of growth and stability in the Asian region, in the economies in transition and in Latin America is a prerequisite for stalling a global recession, which now is a real possibility. With the consequences of liberalised finance being felt closer to home, developed country governments and the international financial institutions have woken up to the fact that unregulated finance creates financial and real instability.

This reality has generated a degree of unprecedented candour even on the part of the IMF, which was hitherto instrumental in pushing for financial and capital account liberalisation in all the developing countries in which it had any policy influence. The IMF's *World Economic Outlook* declared: "It would be wrong ... to attribute financial crises exclusively to policy shortcomings in the crisis countries. Financial crises of the type experienced in Asia and Russia also illustrate the difficulties that emerging market countries can experience when they suddenly become the target for very large capital inflows. History is replete with episodes in which developing countries have experienced large-scale capital inflows in situations when rates of return in the industrial countries were relatively unattractive, for example during periods of cyclical economic weakness, or when developing countries have appeared to offer particularly promising investment opportunities... Complications often arise for two reasons. First, because of the magnitude of the resulting capital inflows relative to the absorptive capacity of the recipient countries, the inflows may contribute to surges in property and stock market prices as well as appreciating real exchange rates – asset price bubbles that often prove unsustainable. Second, when cyclical conditions normalise in creditor countries, or when perception of countries' fundamentals change, investors and banks may no longer find the higher returns in emerging market countries worth the risk. Bouts of excessive optimism among international investors followed by episodes of excessive pessimism can also be a problem as illustrated by the inadequate yield spreads on emerging market debt instruments immediately prior to the Mexican and Asian crises, and by the excessive jumps in risk premia in the wake of these crises, even for countries with relatively sound policy records. Indeed, such cycles go back hundreds of years. Through these channels, and in conjunction with weak financial systems in many emerging market countries, and other weaknesses in policies and institutions, fluctuations in the global economic and financial environment may therefore contribute to the proneness of emerging market countries to crises" [IMF 1998b:20-21].

It cannot be denied that excessive dependence on foreign capital inflows, especially short-term debt, is an important explanatory factor for the nature and the severity of the crisis in east Asia. But a fuller explanation must touch on a related set of issues: Why did these countries, with remarkably high domestic savings and investment rates, choose to invite foreign capital flows of this magnitude? And why did capital from the ostensibly more transparent and rule-based financial systems in the more developed financial markets choose to invest sums in these countries which we know, with hindsight, were far beyond their capacities to absorb?

Financial Centralisation and Volatility

To answer the second question first, we need to examine the manner in which finance capital rose to a position of dominance in the global economy and the role that cross-border flows of capital have been playing in the process of globalisation. Initially, there were specific developments outside the realm of finance itself that contributed to an increase in international liquidity, such as the surpluses generated by the oil shocks which were largely deposited with the international banking system. Subsequently, financial liberalisation increased this overhang (a) by increasing the flexibility of banking and financial institutions when creating credit and making investments, as well as permitting the proliferation of institutions like the hedge funds which unlike the banks were not subject to regulation; (b) by providing the space for 'financial innovation' or the creation of a range of new financial instruments or derivatives such as swaps, options and futures that were virtually autonomously created by the financial system; and (c) by increasing competition and whetting the appetite of banks to earn higher returns.

The massive increase in international liquidity that followed these developments found banks and non-bank financial institutions desperately searching for means to keep their capital moving. At first, there were consumer credit and housing finance booms in the developed industrial nations. But when those opportunities petered out, a number of developing countries were discovered as the 'emerging markets' in the global financial order. Capital in the form of debt and equity investments began to flow into these countries, especially those that were quick to liberalise rules relating to cross-border capital flows and regulations governing the conversion of domestic into foreign currency. Singh (1996) has documented the abnormally large reliance on outside finance for corporate investment in the more prominent newly industrialising countries, and offered some proximate explanations for this. The result of these developments was that there were a host of new financial assets from the emerging markets in the international financial system which were characterised by higher interest rates ostensibly because of the greater risks of investment in these areas.

There are a number of features characteristic of the global financial system which evolved in this manner. Principal among these is the growing importance of unregulated financial agents, such as the so-called hedge funds, in the system. Many years back the Group of 30 had cautioned governments that these funds were a source of concern because they were prone to "undercapitalisation, faulty systems, inadequate supervision and human error".

Though hedge funds first originated immediately after the second world war, they have grown in number and financial strength in recent times. Their number is currently placed at between 3,000 and 4,000 and they are estimated to be managing $300-400 billion of investors' money. These investors include major international banks, which are forced by rules and regulations to themselves avoid risky transactions promising high returns, but use the hedge funds as a front to undertake such transactions.

The operations of the now infamous LTCM illustrates one of the roles these institutions play. Operating out of the US, as most hedge funds do, LTCM managed a part of the money of leading banks, like Travelers Group and UBS of Switzerland. The fund's principal trading activity was based on exploiting the differentials in interest rates between different securities. It was to the credit of LTCM, it was argued, that it indulged in such trades by investing primarily in sovereign debts in emerging markets which were more secure, and yet garnered returns as high as 40 per cent on capital. What was less praiseworthy was the extent to which its operations were based on borrowed capital. On an equity base of a little less than $5 bn, LTCM had borrowed enough to undertake investments valued at $200 bn or more. This was possible because there was nothing in the regulatory mechanism which limited the exposure of these institutions relative to their capital base.

Such flows of credit to a few institutions are significant because in a world of globalised and liberalised finance, when countries are at different phases of the business cycle and characterised by differential interest rates, capital flows in the direction of high returns. Nothing illustrates this better than what the markets term the 'yen-carry trades'. According to the IMF capital markets report for 1997 [IMF 1997:98-99]: "Foreign purchases of US treasury and government agency bonds and notes reached $293.7 bn in 1996, and there was a further $78 bn of foreign purchases of US corporate bonds. Similarly strong capital inflows to US securities markets have been apparent in the first quarter of 1997: foreign purchases of government and corporate bonds during the first quarter of 1997 were slightly above the quarterly average during 1996.... Particularly wide interest differentials between the US and Japan, in conjunction with the belief that the Bank of Japan did not want the yen to strengthen in 1996–97, were viewed by some large global hedge funds as a potentially lucrative situation. These so-called yen-carry trades involved borrowing in yen, selling the yen for dollars, and investing the proceeds in relatively high-yielding US fixed-income securities. In hindsight, these trades turned out to be considerably more profitable than simply the interest differential, for the yen depreciated continuously over the two years from May 1995 through May 1997, which reduced the yen liability relative to the dollar investment that it financed." The implications of these and other flows to the US was that international liquidity "was intermediated in US financial markets and invested abroad through purchases of foreign securities by US investors ($108 bn) and by net lending abroad by US banks ($98 bn)" [IMF 1997:100].

There are a number of points to note here. To start with, the current global financial system is obviously characterised by a high degree of centralisation. With US financial institutions intermediating global capital flows, the investment decisions of a few individuals in a few institutions virtually determines the nature of the 'exposure' of the global financial system. Unfortunately, unregulated entities making huge profits on highly speculative investments are at the core of that system.

Further, once there are institutions that are free of the now-diluted regulatory system, even those that are more regulated are entangled in risky operations. They are entangled because they themselves have lent large sums in order to benefit from the large returns the risky investments undertaken on their behalf by these institutions seem to promise. They are also entangled because the securities on which these institutions bet in a speculative manner are also securities that these banks hold as 'safe investments'. If changes in the environment force these funds to dump some of their holdings to clear claims that are made on them, the prices of securities the banks directly hold tend to fall, affecting their assets position adversely. That is, there are two consequences of the new financial scenario: it is difficult to judge the actual volume and riskiness of the exposure of individual financial institutions; and within the financial world there is a complex web of entanglement with all firms mutually exposed, but each individual firm exposed to differing degrees to any particular financial entities.

Entanglement takes other forms as well. With financial firms betting on interest rate differentials and exchange rate changes at virtually the same time, debt, stock and currency markets are increasingly integrated. Crises, when they occur, do not remain in one of these markets but quickly spread to others, unless stalled by government intervention. Finally, the rise of finance in the manner described above feeds on itself in complex ways. The explanation for the liberalisation wave in the developing countries is that this pyramidal growth of finance, which increased the fragility of the system, was seen as an opportunity. Enhanced flows to developing countries, initially in the form of debt and subsequently in the form of debt and portfolio investments led to two consequences. First, the notion of external vulnerability which underlay the

Table 1: Net Capital Flows

($ bn,

Capital Flows	1984-89	1990-96	1994	1995	1996	1997	1998	199
Asia								
Net private capital flows	13.1	56.0	64.8	91 7	100.2	21.5	-18.3	-7.
Net direct investment	4.5	32.9	44.4	51.0	60.2	60.2	45.1	35.
Net portfolio investment	1.5	6.7	11.5	10.0	10.1	7.5	-6.5	-3.
Other net investment	7 0	16.4	9.0	30.8	29.9	-46.3	-56.9	-39.
Net official flows	7.8	8.5	5.6	5.1	10.3	7.9	12.7	12.
Change in reserves	-2.1	-29.7	-39 8	-33.0	-49.1	-12.1	-7.3	-8.
Latin America								
Net private capital flows	-0.2	46.1	46.9	38 1	81.7	88.3	73 6	75.
Net direct investment	5.3	19.1	24 8	26.0	39 2	54.2	51.0	48.
Net portfolio investment	-0.9	32 3	60.9	1.7	40.0	38.3	34.2	15.1
Other net investment	-4 6	-5.3	-38.7	10.4	2.5	-4.1	-11 5	11.
Net official flows	8.2	1.2	-3.9	20.5	-13.7	-7 7	0 8	1.
Change in reserves	0.5	-18.4	4.2	-25.7	28 3	-15 0	20.8	-3.
Countries in transition								
Net private capital flows	-1.7	10.6	18.9	42 6	16.0	22.6	13.2	16.4
Net direct investment	-0.2	6.4	5.4	13.4	13 4	18.2	17.1	18.
Net portfolio investment	0.0	10.4	20.5	18.8	24.3	20.8	7.0	8.
Other net investment	-1.6	-6.2	-7.0	10 4	-21 7	-16.4	-10.9	-10.
Net official flows	0 2	1.1	-12.1	8.4	-0.2	9 7	11.4	0.
Change in reserves	-2.7	-5.0	-6.9	-36 2	-0.2	-6.3	-3.4	-6.

Source: IMF (1998).

interventionist strategies of the 1950s and 1960s no longer seemed relevant – after all any current account deficit could be financed, it appeared, with capital inflows so long as such inflows are ensured. Second, growth was now easier to ensure without having to confront domestic vested interests, since international liquidity could be used not merely to finance current and capital expenditures but to ease any supply side constraints that may dampen or bring to a halt such growth.

The financial press, the international financial institutions and large sections of the academic community argued that this created an opportunity to launch on an integrationist growth strategy in the developing countries, since in any case the sums required there were seen as a small fraction of the international liquidity being created by the financial system. For western finance emerging markets were a hedge, and for developing countries international finance was an opportunity. A cosy relationship seemed easy to build. It appeared that all that was needed was the liberalisation of finance and a monetary policy that ensured interest rates high enough to make capital inflows attractive even after adjusting for risk.

II
East Asian Experience

In the case of east Asia, these arguments could be dismissed on the grounds that growth was hardly a problem. However, there is reason to believe that, despite their high savings rates, the decision to liberalise finance and allow free capital inflows was in part the result of a growing inability in these countries to sustain the export-based miracle growth rates that had made them the favourites of international capital. It is now almost universally accepted that in terms of the degree of openness and the extent of intervention by the state in the functioning of markets, the east Asian countries pursued widely varying strategies. However, the common element in those strategies was the crucial role of exports in sustaining their high growth rates. Unfortunately, successful export growth has its costs, especially when it is such rapid growth that it involves continuously increasing international market shares. It invites retaliatory action from countries which are the targets of that export drive, it leads to a loss of GSP preferences, it triggers a rise in domestic wages, it often results in infrastructural bottlenecks. All of this in fact happened, and it tended to undermine the very export competitiveness that underlay the high rates of growth in these countries.

Those who extolled the export-orientation in these countries and the associated 'flying geese' phenomenon which saw such a strategy replicated in new countries in the region, recognised this reality. But they also presumed that the early new industrialisers (NIEs) would, in response, successfully diversify into more technology-intensive, high-end sectors and sustain their export drive. This was partially true. But what also happened is that intra-regional investment flows created similar capacities as those which characterised the 'early east Asian industrialisers', in newer and more competitive locations. To the extent that this has resulted in competition within the Asian region among those seeking the same markets abroad for the same products, older suppliers have often lost out in the competitive battle that ensued.

Nothing illustrates this more than world trade in the 'office automation' and consumer electronics sectors. Most Asian countries have experienced deceleration or decline in their manufactured exports since the middle of 1995, and the causes for this sudden drop have still not been adequately explored. One factor most commonly cited is the saturation of developed country markets, particularly for the office automation and telecom equipment segment and the machinery and transport equipment category. In the case of most of these countries these accounted for an overwhelmingly large share of total exports. The slow-down of trade growth in these categories is therefore seen to have had a disproportionate effect on exports from these countries.

If we examine the relative shares of 11 product groups in total merchandise trade in 1996, we find that since 1985, these shares have varied little, with two exceptions: the share of mining products has declined from 22 to 11 per cent (due mainly to a decline in the value of trade in petroleum), while that of machinery and transport equipment has increased from 31 to 38.8 per cent. Two items of significance within the latter category were office machines and telecom equipment and automotive products, whose share of merchandise exports stood at 12.2 and 9.2 per cent, respectively, in 1996. Of these two, office automation and telecom equipment constituted a major export for developing Asia (excluding Australia, Japan and New Zealand), accounting for 26.3 per cent of their total merchandise trade in 1996. If the 1996 shares are compared with those for 1984, the share of office and telecommunications equipment in world merchandise trade nearly doubled over the 12 years, from 6.5 to just over 12 per cent. Thus, telecommunications and office equipment have made important contributions to world trade growth in recent years, with rates of export growth which were higher than the average for all commodities. It could therefore be argued that a slump in the market for those commodities would have affected Asian trade performance quite adversely, given the importance of those commodities in east Asia's export basket.

This argument carries weight for a number of reasons: (i) if we take the six principal items of consumer electronics, office equipment and telecommunications, the eight east Asian economies accounted for 46 per cent of developing country exports of these items and 9.5 per cent of world exports in 1990-91; (ii) these commodities accounted for a significant share (15.4 per cent) of merchandise exports from these eight countries; and (iii) since these were the most dynamic areas in world trade growth during the last decade and a half, east Asian success in exports in these areas would have allowed them to ride the boom in this segment while being insulated from the slump in others. This partly explains the divergence in the growth performance of these economies compared with the rest of the world. However, what is perhaps more crucial is that the saturation in the market for these items has set off a competitive struggle among economies in the region which because of intra-regional investment flows have specialised excessively in these areas. Winners in that battle like the Philippines or those which have not specialised in such products have been the gainers. The Philippines doubled its exports of office automation and telecom equipment in two years, from $5,047 million in 1994 to $10,056 mn in 1996. These items therefore came to account for almost half its merchandise exports in 1996. Such growth must have triggered a price war besides slowing export growth in other Asian

TABLE 2: CAPITAL FLOWS TO DEVELOPING COUNTRIES/EMERGING MARKETS

($ bn)

Source	1995	1996	1997	1998	1999
Net private flows: IMF	147.3	190.9	131.8	87.6	104.1
Net private flows: IIF	228.1	307.6	241.7	158.2	158.3

Note: The IIF's figures relates to what it defines as 29 emerging markets.
Source: IMF (1998) and IIF (1998).

economies. On the other hand, China is a country in which none of these products, excepting radio broadcast receivers, featured in its list of principal exports. Its export dynamism is based on a number of traditional manufactured exports like textiles and clothing for example, which accounted for 25 per cent of its manufactured exports in 1996. That is, China's[i] trading strength lies in areas in which the leading east Asian traders have lost their competitiveness much earlier, forcing them to gradually vacate the markets for such exports.

Thus, the trade experience of the east Asian countries afflicted by the currency crisis has indeed been specific, inasmuch as it reflects a fall in export volume growth and unit values triggered by an excessive specialisation through relocation in areas where capacity growth has come to exceed market growth. It was to deal with these problems inherent in the strategies they were following that many of these countries chose to diversify out of manufacturing into services in general and financial services in particular. Both South Korea and Thailand shared ambitions of becoming the financial hub of the east, and seeing a sharp rise in the services component of their GDP. Financial liberalisation was therefore seen as the means to achieve this end, as well as meet pressures from the developed industrial nations to open up the financial sector as a quid pro quo for keeping open developed-country markets for manufactured exports from the east. As a result, during the early 1990s, almost all east Asian countries liberalised their financial sectors and allowed local corporations, banks, and non-bank financial institutions to freely access international capital markets with little commitment to earn the foreign exchange needed to service the costs of such access.

But that was not all. An appreciating real exchange rate encourages investment in non-tradable sectors, the most obvious being the property market. Given the differential in interest rates between domestic and international markets and the lack of any prudence on the part of international lenders and investors, local agents borrowed heavily abroad to directly or indirectly invest in the property and stock markets. The resulting boom generated the incomes to keep domestic demand and growth growing at relatively high rates. This soon resulted in signs of macroeconomic imbalance, not in the form of rising fiscal deficits financed by the government mint, but a current account deficit reflecting the consequences of debt-financed private profligacy. It was inevitable that this would soon result in a collapse of investor confidence. When that did occur, capital was pulled out and currencies depreciated, those with dollar commitments in the offing rushed into the market to purchase dollars early and cut their losses. The spiral continued, generating a liquidity crunch and a wave of bankruptcy [Chandrasekhar and Ghosh 1998 elaborate this argument]. This is something which is recognised by the IMF as well.

Despite such knowledge, there still appears to be no forgiveness on the part of the IMF, in terms of changing the core policies it prescribes for developing countries facing balance of payments difficulties. In particular, international policy-making circles still refuse to come to terms with the link between export dependence, financial openness and instability. Even though the IMF has belatedly diluted its basic remedy of high interest rates, cuts in government spending and other deflationary measures which have exacerbated the crisis, it appears to be anxious to ensure that the most obvious conclusion regarding the need to regulate capital flows is not drawn, and that other developing countries do not follow Malaysia in instituting some forms of currency control. Further, it fears that faced with inadequate capital flows, developing countries may be encouraged to partially insulate their economies, thereby creating a national space within which they could seek to spur growth with government spending. Thus, in the IMF's view, "in all countries, it is particularly important that the difficult external environment does not lead to defensive exchange rate and trade actions with negative international consequences or to market-closing measures" [IMF 1998a:4]. All this is seen as a prerequisite for restoring foreign investor confidence and wooing back the same foreign capital which had created all the problems in the first place.

There has been widespread criticism of the IMF's east Asia strategy, not only from the World Bank, but from independent analysts [Veneroso and Wade 1998; Bullard et al 1998] and even those who were earlier very bullish about all forms of economic openness and globalisation. Thus, in a recent article, Radelet and Sachs (1998:1) criticise mainstream assessments of the crisis by pointing out that just as Jawaharlal Nehru had once remarked that history is written by the victors, so "financial history, it seems, is written by the creditors". They admit that "the crisis was not the inevitable result of an Asian capitalist model, but rather, an accident of partial financial reforms that exposed these economies more directly to the instability of international financial markets" [Radelet and Sachs 1998:23]. The implication is that continued financial openness is inimical to recovery.

Despite its unpopularity, IMF continues to hold what is still in essence its earlier position. This reflects not only the structure of power within that organisation, but also the persistence of its beliefs regarding how current capitalism works. The IMF obviously believes that restoration of capital inflows is the only viable route to recovery in these countries, and that liberalisation aimed at facilitating such flows and macro-economic and financial policies aimed at attracting them form the only acceptable response to the crisis in these countries. Such beliefs are based on the premiss that investor confidence in a world of globalised finance is country-specific and that the 'fundamentals' that spur such confidence are not undermined by greater financial openness.

TABLE 3: CAPITAL FLOWS TO EMERGING MARKETS

($ bn)

Components	1995	1996	1997	1998	1999
Current account balance	-95	-95.4	-76.2	-44 8	-27 1
Net external financing	267.8	311.1	282.4	200.4	184.6
Private flows, net	228.1	307.6	241 7	158.2	158.3
Equity investment	106.7	128.2	144.9	116.7	119.9
Direct	82.2	94.9	119.7	105.9	101.8
Portfolio	24.5	33.4	25.2	10.7	18.1
Private creditors	121.4	179.3	96 8	41.5	38.3
Commercial banks	103.1	113.3	22 2	-0.7	11.9
Non-bank private creditors	18.3	66	74.6	42.2	26.4
Official flows, net	39.7	3.5	40.7	42.2	26.3
International financial institutions	20.4	7.2	28.3	32.2	14.1
Bilateral	19.3	-3.7	12.4	10	12.2
Resident lending/other	-77.7	-128.6	-161.3	-115.9	-95.7
Reserves change	-95	87.1	-44.8	-39.7	-61.8
Memo net short term	54.5	62.1	-14	-42.6	1.5

Source: IIF (May 1998).

Nature of Investor Confidence

Consider the argument that investor confidence is country- or region-specific. It is now clear that the all-too-brief period when the financial markets of some developing countries and economies in transition were seen as the favoured destination of international investors, is over for the time being. The outlook for most emerging markets is muddy if not definitively negative. According to IMF projections, total net capital flows to all developing countries are likely to decline from last year's levels by more than $90 bn, or around 40 per cent. Table 1 gives more detailed estimates from the IMF for Asia, Latin America and east European economies in transition. As expected, Asia shows the most dramatic change, which is not simply a decline but a reversal to a substantial net outflow of more than $18 bn [IMF 1998c].

Data on gross private financial flows to emerging markets indicate that gross (or new) financing peaked in the second and third quarters of 1997, and that in the first half of 1998 it was running at about half of pre-crisis levels. Asia has accounted for most of the decline in gross flows since mid-1997, but flows to other regions have also been adversely affected. In August, gross financing virtually dried up, reflecting the turbulence in Russia and other emerging markets. As a result of all this, net private capital flows in 1998 as a whole have been estimated by the IMF to be a further $44 bn lower than in 1997, at around $87.6 bn. This is less than half the net inflow recorded in 1996.

A survey by a private agency, the Washington-based Institute for International Finance (1998), has come up with similar indicators of a likely decline in finance to emerging markets in the foreseeable future, though the estimates of the IIF of capital flows to emerging markets are far higher than the IMF's figures for developing countries (Table 2). The IIF's estimate of disaggregated flows is presented in Table 3. The IIF report highlights the following important features of capital flows to emerging markets:

(1) Net private capital flows to 29 major emerging market economies are projected to fall to a little below $160 bn in 1998 from $240 bn in 1997 and a peak of over $300 bn in 1996. This fall reflects both the direct impact of the financial crises in Russia and Asia and consequential effects transmitted through financial markets.

(2) Lending by private creditors is projected to fall to $42 bn in 1998 from $97 bn in 1997 and $180 bn in 1996. Net lending by commercial banks is projected at about zero this year as net repayments by Asian economies will offset positive lending to emerging market economies elsewhere.

(3) Secondary market spreads on emerging market bonds have widened very substantially after the Russian devaluation and unilateral moratorium in mid-August, although there has been some moderation very recently. The IIF believes that in many cases these spreads now substantially exceed levels that correspond to a realistic assessment of default probabilities in individual countries.

(4) New issuance of credit has virtually come to a halt as borrowers are generally unwilling to pay current spreads and investor appetite for risk has declined dramatically. Bond issues from emerging market economies reached $63 bn through September compared with $93 bn in the same period last year.

(5) If it is assumed that spreads on emerging market bonds and other borrowing will narrow and access to international capital markets will gradually be restored for creditworthy borrowers, then the IIF projects that net flows from private creditors will again reach about $40 bn in 1999. However, a substantial part of this lending will be involuntary (in the form of debt rescheduling rather than fresh loans), as some economies including Russia and Indonesia are expected to incur interest arrears.

(6) Direct equity investment has been relatively less affected by recent financial crises and at $106 bn is projected to account for over two-thirds of private capital flows this year. Portfolio equity flows, in contrast, are projected to fall to only $11 bn this year from $26 bn last year, as emerging equity markets have fallen steeply and inflows seen in the first half of this year have been partially reversed.

It is now generally accepted among observers of varying ideological and analytical persuasion, that this is not a tendency that will quickly reverse itself. Even the IMF, generally the last multilateral economic institution to accept any unpleasant reality, has conceded in its *World Economic Outlook* (1998) that there is a real risk that the recent panic may fail to subside for some time. This is likely to imply significant net outflows of foreign capital from many economies, as already witnessed in the Asian crisis countries and in Russia. The growing fear and insecurity among market participants, which is reflected in the large yield spreads seen recently, could become self-fulfiling and result in the prolonged disruption of international financial flows with severely depressing effects on economic activity as well as on world trade.

What is important to note here is that the crisis – in the specific form of dramatic reduction in net capital inflows – is currently attacking virtually all emerging markets, not simply those which have been identified as having specific domestic problems or which are perceived as particularly risky prospects. This is essentially a repetition of a historical pattern in international lending and portfolio investment which can be traced over more than a century, whereby problems of repayment or potential default in one recipient country have led to dramatic declines in all such inflows to all developing countries, rather than being confined to the individual transgressor. International lending to developing countries has always been characterised by such cycles, and sharp collapses in such flows consequent upon repayment problems of a small subgroup of debtors, are evident in the 1920s, 1930s, and of course in the external debt crisis of the 1980s [Kindleberger 1986]. The current talk of 'contagion' – as if it were a qualitatively new market phenomenon – misses this obvious historical point. It has typically been in the nature of private international capital to move in such a manner, and the current expansion of global finance has only accentuated such a tendency.

Liberalisation and Investor Confidence

The second difficulty with the IMF's revised perspective is its failure to see that the fundamentals which may become crucial for the sustenance of investor confidence can be undermined by liberalisation itself. Not surprisingly, when the crisis which was brewing for more than a year, first broke out with the devaluation of the Thai baht in July 1997, mainstream international opinion, influenced by the international financial institutions, argued that wrong domestic poli-

Table 4: Thailand – GDP Growth Rates (1988 Prices)

(Per cent per annum)

Year	Overall	Manufacturing	Agriculture
1989	12.2	16	9.6
1990	11.2	15.7	-4.7
1991	8.6	11.7	7.2
1992	8.2	11.3	6
1993	8.6	11 2	0
1994	8.9	9.3	5.3
1995	8.7	11.2	2.5
1996	5 5	6.9	3.8
1997	-0.4	0.2	1.5

Source: Bank of Thailand.

cies in these countries were responsible for the crisis. The thrust of the analysis underlying that opinion was the idea that private profligacy financed by a non-transparent, state-directed financial and banking system, had fuelled a speculative boom based on capital flows from abroad. This tendency was in turn attributed to irrational and corrupt collusion between the state and private capital in these countries. The boom itself was seen to involve unwarranted expansion of overgeared productive enterprises as well as speculative investments in the property and stock markets. When developments in international trade triggered a slow-down of growth in these economies and their 'fundamentals' ostensibly came up for scrutiny, it was inevitable according to this view that a collapse steered by a loss of investor confidence would ensue.

The real change in terms of analysis is that now the situation where countries become dependent on foreign finance, in excess of their absorptive capacity, is blamed not merely on governments and private agents in emerging markets but on the international financial players as well. And the conclusion that is drawn is not that countries should turn their backs on such finance and pursue a more insular strategy which discourages the use of foreign capital inflows, but that they should adopt more prudent macro-economic strategies and that they and international investors should strive for greater transparency in the financial sector to ensure that only the best users are in a position to access capital and that such users and the international investors are not denied what are seen as market determined profit opportunities.

In fact, one very common conclusion that has been constantly repeated since the start of the Asian crisis in mid-1997 is the importance of 'sound' macro-economic policies, once financial flows have been liberalised. It has been suggested that countries like Thailand, South Korea and Indonesia have faced such problems because they allowed their current account deficits to become too large, reflecting too great an excess of private domestic investment over private savings. This belated realisation is a change from the earlier obsession with government fiscal deficits as the only macro-economic imbalance worth caring about, but it still misses the basic point. This point is that, with completely unbridled capital flows, it is no longer possible for a country to control the amount of capital inflow or outflow, and both movements can create consequences which are undesirable. If, for example, a country is suddenly chosen as a preferred site for foreign portfolio investment, it can lead to huge inflows which in turn cause the currency to appreciate, thus encouraging investment in non-tradables rather than tradables, and altering domestic relative prices and therefore incentives. Simultaneously, unless the inflows of capital are simply (and wastefully) stored up in the form of accumulated foreign exchange reserves, they must necessarily be associated with current account deficits. The large current deficits in Thailand and elsewhere therefore were necessary by-products of the surge in capital inflow, and that was the basic macro-economic problem. This means that any country which does not exercise some sort of control or moderation over private capital inflows can be subject to very similar pressures. These then create the conditions for their own eventual reversal, when the current account deficits are suddenly perceived to be too large or unsustainable. In other words, what all this means is that once there are completely free capital flows and completely open access to external borrowing by private domestic agents, there can be no 'prudent' macro-economic policy; the overall domestic balances or imbalances will change according to the behaviour of capital flows, which will themselves respond to the economic dynamics that they have set into motion.

That is not all. When this dynamic results in a crisis following a collapse in capital flows, restoring growth within an open environment of the kind that the IMF insists on proves near impossible. This is because the structure of an open regime (which is also open financially) is such that growth comes to depend not on exports but investments in non-tradables, particularly certain services and in asset markets, financed with capital inflows. Reversing this dependence on non-tradables and services itself requires large investments, in order to restructure existing and create new internationally competitive capacities. However, the economic contraction or slow growth that follows the collapse in investor confidence makes it impossible to rebuild that confidence in adequate measure. One way in which the IMF has sought to deal with this problem is to relax its fiscal deficit targets in countries that accept its conditions about openness. However, since pump-priming the system within an open regime inevitably widens the current account deficit and necessitates capital inflows, there are limits to which even this strategy can be pursued, determined by the ability of the IMF to organise the necessary foreign capital. In the event, recovery in these economies proves elusive and they are stuck on a trajectory which worsens the burdens of adjustment heaped on the population, which is ravaged by unemployment and an erosion of real earnings.

Sustainable recovery in these countries requires a different strategy. It involves a turn away from the excessive openness resulting from the mad pursuit of easily accessed foreign capital. For a time, the sheer availability of such finance, at least for a minority of highly publicised emerging markets, had convinced developing countries that the problems of external vulnerability which had warranted the earlier import substituting industrial policies are no longer relevant. Now, however, there is greater realisation that these problems of external vulnerability have not gone away, and can be as vicious as ever. This has meant a revival in policy ideas that are based on some degree of insulation from the vagaries of international markets, particularly financial markets. While a full return to the earlier forms of import-substituting regime is obviously not advisable, the only way in which fiscal deficits can be used to trigger growth is if there exists an 'area of control' insulated from the debilitating consequences of the free flow of capital, goods and services. Unfortunately, while the IMF is willing to relax its fiscal deficit targets, it is still completely against control and regulation over trade, exchange rates and capital flows.

To corroborate these conclusions, we examine in what follows the post-crisis

TABLE 5: THAILAND – TRADE GROWTH RATES

Period	Exports	Imports
1996	-1.9	0.6
1997	3.8	-13.4
Jan-June 1998	-4.1	-39

Source: Bank of Thailand.

TABLE 6: THAILAND – BALANCE OF TRADE (US $ mn)

1996	-16148
1997	-4614
January-June 1998	5726.9
July-October 1998	4256

Source: Bank of Thailand

TABLE 7: THAILAND – ANNUALISED RATE OF INFLATION

1997	7.7
January-June 1998	9.7
July 1998	10.0
August 1998	7.6
September 1998	7.0
October 1998	5.9

Source: Bank of Thailand.

adjustment experiences of South Korea and Thailand. The factors leading up to the crisis in these countries are essentially similar to those elaborated above, in that liberalisation of various markets played a role in creating the macro-economic conditions for crisis. However, we do not concentrate on these, which have been described elsewhere [Chandrasekhar and Ghosh 1998; Ho-Joon Chang 1998; Pasuk 1998; Lauridesen 1998] but on developments after the onset of the crisis in mid-1997. Thailand illustrates an instance where the pursuit of IMF-style policies has not managed to restore investor confidence, with devastating effects on the economy and especially on the poor. The South Korean case indicates that even such a restoration of investor confidence need not be enough to generate an adjustment leading to economic recovery.

III
IMF and Economic Depression in Thailand

Recently, Jayasankar Shivakumar, the World Bank's director for Thailand, declared that "ten years will pass before the structural reforms take effect and prosperity can be measured for the vast majority of people". IMF and World Bank officials have never been known either for their sensitivity or for their eagerness to avoid the devastating effects their so-called 'reforms' have on the majority of the people in countries that follow their advice. Even so, this quotation is remarkable for the casual manner in which a medium-term prospect of continued economic disaster is prophesied for Thailand. It is even more remarkable given the alacrity and humility with which the Thai government has in general accepted the economic policy advice of the IMF and the World Bank in its attempt to counter its current crisis. Clearly, if the Thai people must continue to suffer for the next decade, the blame for this must also lie with these policy advisers, who have been closely associated with the strategies which are causing such suffering.

As late as November 1996, when it was already apparent to discerning observers that the Thai economy was heading for difficulties, Michel Camdessus, managing director of the International Monetary Fund, publicly upheld Thailand as a model of macro-economic policy for other developing countries. In August 1997, after signing the first of a recent series of letters of intent with the Thai government, he once again approved of the government's proposed policies to deal with the current crisis, which he felt would "decisively contribute to stability in financial markets in Asia". Since then, Fund officials have continued to insist that the policy package advocated by the IMF is the only possible way to deal with the crisis, and have also accepted that the Thai government has in general followed their recommendations without demur.

Yet in the period from August 1997, the IMF has been through no less than six 'letters of intent' with the Thai government, as continuously deteriorating economic circumstances render the earlier agreements irrelevant. For most disinterested observers, it is now clear that the IMF policies have contributed significantly to the deterioration : rather than helping to form the solution, the IMF has definitely been a major part of the problem. The IMF approach was initially based on two broad planks of fiscal compression and tight monetary control, both of which added to recessionary tendencies in an economy whose basic initial problem in the current crisis was asset deflation. This real economy recession, along with constrained access to credit, has in turn meant that Thai companies have faced greater difficulties in repaying loans, which has made the banks worse off, further adding to the financial sector problems. The continuing interaction between these downward pressures has led to the economic depression which is now sweeping across Thailand.

The explicit aim of IMF's strategy in Thailand, as elsewhere, is to restore foreign investor confidence, in the hope that a renewed inflow of foreign capital will allow economic growth to resume. To this end (and also as part of the overall dogma of reducing the role of government) it has proposed extensive privatisation of public assets, with the sales open to foreigners, as well as greater openness to foreign investment and ownership in areas such as real estate. Measures such as an expansionary fiscal strategy to counter recession, to be financed by raising taxes, are explicitly ruled out. So the only hope of recovery must rest with foreign investors who have to be enticed to come back into Thailand with large net inflows through whatever means possible. It is interesting that this revival of foreign investor confidence was hoped for in an economic context in which even domestic investor expectations are bearish in the extreme, with domestic markets shrinking and costs rising because of rising import costs and tighter credit.

It is not surprising that such a strategy has failed, nor that it has been associated with worsening economic conditions such that output targets have had to be continually revised downwards. The recession, which has now really become a full-scale depression, has also meant that the fiscal targets set by the IMF cannot be met despite the Thai government's ruthless cuts in a whole range of necessary development and welfare expenditure.

Thailand's record of fiscal surpluses came to an abrupt halt in 1997 when the government announced a deficit of 31.15 bn baht – the first such deficit in 10 years. For 1998, the government had originally promised to the IMF a budget surplus of 1 per cent of gross domestic product, or about 50 bn baht, for fiscal 1998, ending in September. This was supposedly to offset the interest costs on debt incurred through the Bank of Thailand's efforts to prop up failing financial institutions. To meet the target, the government slashed more than 200 bn baht from the fiscal budget through five rounds of cuts. Value added tax was increased from 7 per cent to 10 per cent while petrol tax jumped one baht a litre. Excise taxes on imported luxury goods such as wine and clothing also increased.

The economic contraction in the first half of 1998 forced the government to reconsider this fiscal strategy. Tax revenues were sharply down (except for value-

TABLE 8: SOUTH KOREA – QUARTERLY GROWTH RATES

(Per cent)

Period	GDP	PFCE	GCF
1997 Q1	5.7	4 4	0 3
1997 Q2	6.6	5 1	0.2
1997 Q3	6.1	5.1	-3.7
1997 Q4	3.9	-0 2	-9.8
1998 Q1	-3.9	-9.7	23
1998 Q2	-6.8	-12 9	-29.8
1998 Q3	-6.8	-11.8	-28.3

Note: PFCE = Private final consumption expenditure.
GCF = Gross capital formation.
Source. Bank of Korea.

TABLE 9: SOUTH KOREA – TRADE PERFORMANCE

($ '000)

Period	Exports	Imports	CAB
Avg 1st half	10875.9	12402.0	-1679.3
Avg 97 3Q	11393.9	11895.9	-487.8
Avg 97 4Q	12242.3	11505.6	1664.6
Jan-1998	9007.1	7526.6	3069.2
Feb-1998	11222.5	8006.5	4128.9
Mar-1998	12010.1	8358.1	3630.4
Apr-1998	12063.6	8243.8	3590.3
May-1998	11310.1	7652.1	4056.1
Jun-1998	11466.5	7749.4	3262.5
Jul-1998	10037.6	7099.0	3814.2
Aug-1998	9726.8	7119.3	2169.6
Sep-1998	10861.8	7255.3	3643.0
Oct-1998	10837.6	7657.5	2747.5

Source: Bank of Korea.

added tax receipts), as the depreciation of the baht significantly increased the foreign exchange losses of the corporate sector and domestic recession also kept profits low. Maintaining the 1 per cent budget surplus became next to impossible. The third letter of intent with the IMF, signed in February, conceded this. Instead of a 1 per cent of GDP surplus, the Thai government was allowed to run a deficit of up to 1.5 per cent of GDP for the central budget and 0.5 per cent for state enterprises.

But even the new targets proved unreachable, as the economic recession continued to wreck havoc on tax collections in the first quarter. A new revision was necessary by May when the fourth letter of intent was drafted. In this, the overall public sector deficit target under the programme for 1997-98 was changed from 2 per cent of GDP to 3 per cent, with some 50 bn baht to be allocated for strengthening the social safety net and ongoing public works projects. The fiscal target for the next year was also changed from balanced budget to a small deficit of 1 per cent of GDP.

The next quarterly review, known as the fifth letter of intent, which came in August, once more revised the fiscal targets. Under the agreement, the 1999 budget, which began in October 1998, was to have a deficit target of 3 per cent of gross domestic product, the same as the 1998 budget. This included a central budget deficit of 1 per cent of GDP, with the remainder from state enterprises. It excluded the 1.5 per cent of GDP budgeted for financial restructuring costs, including domestic bond issues by the Financial Institutions Development Fund and other costs from the reform package announced on August 14. Monetary policies were to be maintained, especially since short-term rates in the money market had fallen from 20 per cent earlier in the year to about 10-12 per cent. However, short-term interest rates, it was argued, should be "promptly raised to counteract speculative pressures". The government's priorities were to be corporate debt restructuring and financial reform measures. Both were seen as "essential to re-establish normal market relations, allow the resumption of credit flows, and support a recovery of the private sector".

The most recent quarterly review, or the sixth letter of intent dated December 1, 1998, goes even further. The overall public sector deficit for 1998-99 is now targeted at about 5 per cent of GDP, higher than the previous target by about 2 per cent of GDP. In addition, the interest costs of financial restructuring are estimated at 3 per cent of GDP of which, as indicated in our memorandum on economic policies (MEP) of August 25, 1998, the government will 'fiscalise' up to 1.5 per cent of GDP of interest costs in 1998-99.

The latest review thus suggests that while the IMF may have learned something from the debacle so far, it is nowhere near enough for it to provide a viable way out of the crisis. In allowing the government to run a modest deficit, the IMF has acknowledged that public spending may be one of the few ways to stimulate the economy, given the shortage of private capital available for productive investment and expansion. In fact, in an IMF release managing director Michel Camdessus "welcomed the easing of fiscal policy, and the strengthening of the social safety net", because "these factors, along with the significant interest rate reductions that have taken place in recent months, will provide a strong foundation for economic growth next year." However, the agreement lacks sufficient measures to help spur the economy and ease unemployment. To start with, it fails to recognise that the growth-inducing consequences of higher deficits would be limited for two reasons: first, higher deficits do not reflect higher spending, but a fall in tax revenues far greater than in spending; and second, the new demands generated by enhanced spending could well spill over in the form of higher imports rather than higher domestic production. Further, the package focuses additional spending on corporate and financial restructuring rather than on the expansion of employment opportunities. Thai critics have already argued that this will basically waste hundreds of bns attempting to bail out now-defunct finance companies whose major shareholders have long since cashed out and headed into comfortable exile abroad.

The resources for this bail-out of the private corporate sector are to come from a massive privatisation programme, in telecommunications, mains water and transport, which the Thai cabinet approved in late August. It is hoped that market liberalisation, including changes to land ownership and the Alien Business Law, would lead to greater foreign investment. Unfortunately there is yet no great interest in such investments on the part of foreigners. It is evident that this latest letter of intent essentially restates the same policy package that has already clearly failed, albeit with a few changes in the details of the fiscal deficit. It does nothing to increase domestic consumption and employment opportunities, which is the key to the economic turnaround. And it sacrifices more resources to the altar of investor confidence, offering both taxpayers' money and public assets for sale towards this dubious end.

Thai Growth Record

The failure of the package comes through from an examination of its effect on output, employment and general living standards. As evident from Table 4, the very high rates of growth that marked the 1980s in Thailand also continued into much of this decade. The early years of the 1990s in fact saw aggregate real GDP grow at around 15 per cent per annum, which came down to the still high rates of around 11 per cent in the middle of the decade. Given the volatility of agricultural growth, most of this increase came from industry and services. But by 1996, a deceleration was apparent, and this slow-down reflected both the deceleration in exports (which fell to zero growth in that year) as well as the saturation of domestic demand consequent upon a feverish speculative boom in real estate and financial assets. The crisis has been seen as primarily financial in nature, but of course it was closely related to real economic imbalances which were partly a creation of the financial spurt and in turn contributed to it.

Like several other developing country regimes in the early 1990s, the Thai government harboured ambitions of cashing in on the globalisation of finance by attracting large amounts of capital inflow. Indeed, the central bank in 1993 announced

Table 10: South Korea – Quarterly Export Growth Rates by Principal Destination

(Per cent)

Period	Industrialised Countries	Developed Countries
1997 Q1	-14.6	2.5
1997 Q2	8.5	6
1997 Q3	16.9	14.6
1997 Q4	10.3	-1.3
1998 Q1	23.4	-2.5

Source: Bank of Korea.

Table 11. Non-performing Credit of South Korean Banks

(Million won)

Year	Bad Credit	Non-performing Assets
1990	1.9	7.2
1991	2.1	8.3
1992	2.4	10.3
1993	2.9	12.1
1994	1.9	11.7
1995	2.3	12.5
1996	2.5	12.2
1997	10.1	22.6

Source: Bank of Korea.

its plan to develop Bangkok as a regional financial centre, taking advantage of Thailand's central location in south-east Asia and the apparent trend of continuously rising exports. Foreign exchange controls were relaxed in the early 1990s to encourage freer flow of capital. In 1993, the central bank allowed the establishment of International Banking Facilities to help mobilise offshore funds for domestic lending. These measures generated a heavy influx of foreign capital, the majority in the form of short-term credit seeking to exploit the higher interest rates available in the local market. Portfolio investments also increased as share prices on the Stock Exchange of Thailand jumped.

Meanwhile, however, the basket peg system introduced in the mid-1980s, which effectively fixed the baht to the US dollar, was continued. At one level, this was of course a basic requirement for the aim of becoming a regional financial centre and retaining foreign investor confidence. But the combination of this rigid exchange rate regime and liberalised capital flows inevitably set the stage for greater macroeconomic instability in the future. It should be remembered that a flexible exchange rate regime would not have got around this problem, since the high rate of capital inflows would, if anything, have made the baht appreciate even faster in real terms. The source of the problem in Thailand was actually in the very feature that was being lauded by international finance and the Bretton Woods institutions at that time. Essentially it was the sudden and dramatic increase in capital inflows that can be described as the original sin that created the future macro-economic imbalances. In the first place, the relatively high baht made exports less competitive, and also encouraged a boom in imports. This was also possible because the trade regime had been progressively liberalised by that point. Growing consumerism spurred heavy import demands, paid for in turn by capital inflows. Associated with this there was a shift in domestic investment away from tradables into non-tradables, and especially into real estate and similar sectors. Unproductive investments in property and speculative securities also led to higher costs, wages and capital goods prices, further undermining the competitiveness of Thai exports.

All this also encouraged greater dependence on foreign capital than was necessary or even warranted by the domestic investment pattern. Thai companies, seeing no exchange risks under the currency peg, flocked to international markets to borrow at interest rates lower than those prevailing in the local market, despite increasing leverage ratios. Financial institutions were also beneficiaries of relatively cheap foreign funds. As the economic expansion continued, lending criteria eased as banks and finance companies competed for increasingly risky investment opportunities.

As a result, the current account deficit reached a peak of 8.2 per cent of gross domestic product in 1995. The ratio of foreign debt to gross national product reached 50.14 per cent in 1996, pointing to the country's deteriorating external position. It is wrong to attribute this solely to the fixed exchange rate, however, as the Nukul Commission appointed by the Thai government has suggested. In fact, it is really the continuous and growing dependence on large capital inflows which was responsible, since this would have led to a high level of the baht even in a floating rate regime.

The floatation and associated devaluation of the baht on July 2, 1997 was the culmination of a period during which it had become increasingly difficult for the Bank of Thailand to defend the currency in the face of speculative attacks. But it triggered a major financial and then economic crisis into which the country has sunk even deeper in the subsequent year. Output has slumped, and there have been major losses in employment. The domestic credit system has nearly collapsed, and this has magnified falls in sales, trade and working capital. In the current year, an 8 per cent contraction is estimated. The economy recorded negative growth of 8.2 per cent of GDP in the first quarter, 9.4 per cent in the second and 5.8 per cent in the third. Already, the economic crisis has wiped out productive gains of the last seven years. For 1998, aggregate personal disposable income is estimated to be around 113 trillion baht, equal to that in 1991, and a stark contrast to the 183 trillion in 1996.

Meanwhile, the devaluation of the baht has done less than expected to boost exports, as evident from Table 5. Government forecasts show export revenue in dollar terms dropping by around 3 per cent, with total revenue of about $53 bn. According to the Bank of Thailand, June exports fell by 3.1 per cent in dollar terms compared with the year before, but shipment volume rose by about 15 per cent. Subsequently, the month-to-month rate of decline of the dollar value of exports increased sharply to 3.8 per cent in July, 11.7 per cent in August, 10.3 per cent in September, and an estimated 12.5 per cent in October. Private estimates suggest that the value of exports this year will be worse than expected, and that revenue in dollar terms is likely to fall by 8 per cent from last year's level. Agricultural exports should have benefited greatly from the baht depreciation, but to date they have not. The export value of agricultural products, which account for 13.8 per cent of all exports, rose by just 0.1 per cent to $1.9 bn in the first three months of the year. Industrial goods, which account for 65.3 per cent of exports, fell by 5.1 per cent to $8.8 bn, while agro-processing exports dropped by 14.1 per cent to $1.2 bn.

Along with the credit squeeze which has affected working capital costs for exporters, the inability of exporters to take advantage of baht depreciation has been attributed to a lack of bank financing, weak Japanese import demand, and a sharp economic contraction in Asia. The situation could worsen in the second half as raw material inventories in warehouses run out, if no fresh funds for replenishing stocks can be found. The result could be the closing of many small and medium-sized operations, and many more job losses, especially in the textile and garment industries.

The current account, which has shown steady surpluses for almost a year, reflects the collapse in imports rather than any real pickup in exports. The value of imports in the first 10 months of the year declined by almost 40 per cent compared with the same period last year. This is reflected in the trade balance figures, shown in Table 6. The result is a healthy looking current account, but a closer look reveals a sharp drop in imported raw materials for key industries such as textiles, automobiles, electronics and electrical appliances. Production for the domestic market is fraught with difficulty. Some firms are being squeezed by a lack of credit and falling cash-flows, while others have seen their markets vanish, or are making products that sell only at low prices that drastically reduce profit margins.

Official figures place unemployment at 1.8 mn people, but some analysts predict this could jump to three million next year

TABLE 12: CURRENT ACCOUNT AS PERCENTAGE OF GDP

Country	1995	1996	1997	1998
Russia	1.6	0.6	-0.1	1.6
South Korea	-1.9	-4.7	-1.8	13.2
Indonesia	-3.3	-3.3	-1.8	3.0
Malaysia	-10.0	-4.9	-4.2	11.0
Thailand	-7.9	-7.9	-2.0	11.4
Philippines	-4.4	-4.7	-5.2	1.2

Source: IMF (1998a).

and corporate bankruptcies and downsizing continue. The greatest job losses have been in the industrial sector, but several services activities are also increasingly under threat as the downslide goes on. Already in the first half of 1998, both the number of firms reporting job losses and the number of employees who have lost their jobs project a big increase over last year's already large totals.

Meanwhile, economic conditions initially worsened even for those who still have employment. Food prices rose sharply as the baht devaluation had made rice exports more profitable. While the country remains more than self-sufficient in rice and peasants can probably maintain their rice consumption, those employed outside agriculture found food prices moving up disproportionately fast. However, the depth of the recession has helped steady prices. The overall rate of inflation, shown in Table 7, rose to touch double figures during the first half of the year, but has declined substantially since then. The economy seems to be entering a classic deflationary path.

Ironically, these deflationary tendencies have been further reinforced by the tight monetary policy imposed as part of the IMF package. The private sector, which was already strained from higher costs and declining revenues, has been further burdened by the lack of new credit and the onerous burden of debt service costs. In March, the central bank unveiled new loan classification, provisioning and accounting standards aimed at strengthening local financial institutions to international levels. Small and medium-sized banks came under fierce liquidity pressure in the first quarter of the year as deposits moved to larger institutions and foreign banks and interbank credit lines were cut. Local banks have seen asset quality decline further because of high interest rates and recession. In consequence, Thailand's commercial banks showed total losses of 113 bn baht in the first half of this year. The figure for non-performing loans, which continue to pose a major threat to the economy, is now estimated to be 1.7 trillion baht. In such a context, good debtors might well decide to keep the cash for fear that financial institutions would not lend again and that would cause non-performing loans to grow further. Few, if any, commercial banks are expected to show profit in 1998.

Since the recession is expected to stretch well into 1999, prospects for the banking sector in the medium term remain bleak. The sheer scope of the bad-loan problem, coupled with poor market sentiment, high interest rates and tight liquidity, have left many banks and finance houses seriously undercapitalised and facing insolvency. Bankruptcies and unemployment are expected to skyrocket, particularly with the passage of a new foreclosure law in October giving creditors greater leeway to seize collateral from delinquent borrowers. And the battered shape of the financial sector, with non-performing loans currently expected to peak at around 40 per cent of total outstanding credit sometime next year, will continue to act as a drag on sentiment amid market uncertainties of whether further bank and finance company closures are imminent. The result is a self-reinforcing downward spiral, which will continue unless active policy measures are put into place to reverse it.

All this has forced several small and medium-sized banks to turn to the central bank's Financial Institutions Development Fund for support. But this institution simply does not have enough funds given the enormity of the task at hand. In its financial reforms announced on August 14, the government pledged support for undercapitalised local banks and finance companies. Under the restructuring plan, the government will provide 300 bn baht in capital assistance for banks and finance companies. Incentives are in place to encourage speedy debt restructuring and new lending to the private sector. Bankers worry that this will lead to even more voluntary defaults by clients under the misguided impression that the state will pay for any losses. Other groups, such as the farmers, have been asking why so much public money should go to protect large firms and big banks, and have demanded a moratorium on their own debts.

In such a weak domestic economic situation, the external sector is unlikely to appear very strong. Even so, there appeared to be some recovery towards the beginning of 1998. The balance of payments, negative in January and February, moved into surplus in March and April. Portfolio investments and the successful recapitalisation of Bangkok Bank and Thai Farmers Bank helped cause a net capital inflow for the two months. But there are signs that the stability of the baht would be short-lived. By June, the baht crashed through 42 to the dollar, pulled downwards alongside other regional currencies by the weakness of the Japanese yen. There are increasing signs in the market that foreign speculators may gear up for another assault on the baht, and certainly speculative pressures on the currency are likely to remain significant in the medium-term unless some form of capital control is imposed.

Thailand's experience is one which suggests that pursuit of IMF-style macroeconomic policies does not spur investor confidence and trigger a recovery. Further, persisting recession makes it impossible to meet the IMF's fiscal targets, so that pursuing the strategy recommended itself becomes impossible. The result of course is a decline without any immediate prospect of recovery, the burden of which also falls on the poor and the fixed income earners who had no role to play in the debt-financed profligacy that triggered the crisis.

IV
South Korean Experience

The Thai experience has been interpreted by the IMF and other financial market analysts as suggesting that the recovery is elusive in east Asia because foreign investors are refusing to return. The South Korean experience contradicts that conclusion. It has been more than a year since South Korea's banks were subjected to the first credit-rating downgrade, because of their exposure to conglomerates going through an unprecedented financial crunch. And the country which epitomised east Asia's 'rags-to-riches' story has been a year from the date on which it accepted a loan from and subjected itself to conditionalities specified by the IMF. In the interim, South Korea has not just seen a change in government, but also a series of new initiatives worked out in consultation with, and monitored by, the Fund. As a result, the country has won itself credibility with the IMF. However, this has been inadequate to reach on the principal goal: that of spurring growth. On July 24, the government of Korea in one more letter of intent to the IMF declared: "The domestic economy...appears to be falling further into recession and consumer and investor confidence is at a low ebb. Unemployment has increased faster than previously expected and more layoffs are expected to result from the acceleration of restructuring."

The story of this decelerating growth is reflected in Table 8. GDP growth which had slowed marginally from around 8 per cent during 1994-96 to 6 per cent per annum over the first three quarters of 1997, fell sharply to 3.9 per cent at the height of the crisis during the last quarter of 1997, when negotiations with both the IMF for the $57 bn rescue package and the banks for the roll over of short-term credits placed at close to $100 bn were successfully concluded. But after these agreements were concluded, the process of deceleration in growth was transformed

into one of contraction, with GDP falling by close to 4 per cent in the first quarter of 1998 (relative to the corresponding quarter of the previous year) and by a massive 6.8 per cent during the second and third quarters. Almost all of this contraction in growth is attributable to three sectors: construction, manufacturing and services in that order. Needless to say, once the weight of each of these sectors in GDP is taken account of, the sector leading the economy into a slump is manufacturing.

The proximate explanations for the dramatic downturn in manufacturing are not hard to find. Since the South Korean economy is characterised by a high export-to-GDP ratio, the slow-down in export growth resulting from the regional crisis should itself have contributed to slower manufacturing growth. The dollar value of exports, which fell sharply in January, recovered only marginally thereafter and has stagnated at that level since (Table 9). But there have been two other important trends underlying the recession (Table 8). First, a collapse in investment reflected in a contraction in gross capital formation which in absolute magnitude fell by 10 per cent in the last quarter of 1997, 23 per cent in the first quarter of 1998 and by close to 30 per cent in the second and third quarters of 1998. Second, a downturn in private final consumption expenditure, resulting from the increase in unemployment and the erosion of money incomes accompanying the recession. The official unemployment rate, which averaged around 2.6 per cent through 1997, rose to 4.7 per cent during the first quarter of 1998 and is estimated at 7.1 per cent for October 1998.

This collapse of domestic demand called for a reflationary strategy, especially since the Korean crisis of 1997 was more the result of bank overexposure in corporations taking a beating in international and domestic markets. The IMF itself noted after concluding Article IV consultations in May: "In 1994-96, Korean conglomerates undertook an aggressive investment drive financed by large increases in borrowing from domestic banks, which, in turn, sharply increased short-term external borrowing. During 1997, an unprecedented number of highly leveraged conglomerates went into bankruptcy as the build-up in capacity proved unviable owing to the depreciation of the yen, a sharply adverse movement in Korea's terms of trade, and the slowing of domestic demand in 1996. The bankruptcies resulted in a severe deterioration in the balance sheets of Korean financial institutions." All of this was attributed to hasty capital account liberalisation during 1993-96, which substantially eased controls on short-term borrowing. While this called for a combination of capital controls and a restructuring of the financial sector, some effort to stimulate demand was necessary in the interim. The principal error of the strategy worked out by the IMF for South Korea was that it equated the difficulties generated by public profligacy with those stemming from private profligacy encouraged by financial sector liberalisation. So it recommended to South Korea what it imposes on countries where balance of payments difficulties result from excess public deficits financed directly or indirectly by borrowing from abroad, viz, deflation led by a sharp curtailment of public expenditure.

This engineered deflation was to take two forms. First, a tight money policy designed to push up interest rates. As the South Korean government's first letter of intent to the IMF stated, "to demonstrate to markets the government's resolve to confront the present crisis, monetary policy will be tightened immediately to restore and sustain calm in the markets and contain the inflationary impact of the recent 'won' depreciation. In line with this policy, the large liquidity injection in recent weeks will be reversed, and money market rates will be allowed to rise sufficiently and will be maintained at that level or higher as needed to stabilise markets." Through this policy the call rate was raised from 12.5 per cent on December 1, 1997 to 21 per cent on December 5 and 30 per cent by December 24. Needless to say, this signalled a rise in all interest rates with the aim of halting speculative trading in the 'won' and of attracting foreign investors back into the market so as to strengthen the currency. For South Korean firms, overgeared due to past government encouragement and adversely affected by demand conditions, this increase in the interest burden was a prescription for bankruptcy. The understanding was that an essential prerequisite to deal with the financial crisis was a restoration of capital inflows and that some bankruptcies of Korean corporations was a small cost to be paid in pursuit of that goal. In fact, through capital market liberalisation and the substantial liberalisation of restrictions on the aggregate holding by foreigners of equity in domestic corporation, bankruptcies were sought to be converted into a benefit by encouraging sales of assets to foreigners at bargain prices that would contribute to capital inflows.

The second means of engineering deflation was fiscal contraction ensured through a surplus on the government's budget. When the IMF programme was initially adopted in December 1997, the IMF had demanded a package of tax and expenditure measures, designed to yield revenues equal to 1 per cent of GDP, which was expected to deliver a fiscal surplus (of 0.25 per cent of GDP) in 1998. Despite this, growth in 1998 was expected to remain positive at around 1 per cent, revised down from expectations of 2 per cent or more earlier. However, by February even the IMF had to accept that a weaker growth outlook for 1998 and the impact of the exchange rate depreciation would make a fiscal deficit of around 1.5 per cent of GDP inevitable. In the updated memorandum on the economic programme prepared for the second quarterly review in May 1998, it was decided that "with the updated macro-economic projections indicating weaker growth, and ongoing structural adjustment in the economy, a larger fiscal deficit (1.75 per cent of GDP) will be permitted". But barely two months later in July a new economic memorandum declared: "In order to support economic activity and to further strengthen the social safety net, the supplementary budget to be passed in August increases the deficit in 1998 to 4 per cent of GDP". The latest letter of intent dated November 13, 1998 states clearly: "The government is attempting to stem further economic contraction through a combination of stimulative fiscal policy and accommodating monetary policy. The national assembly approved the supplementary budget in September to allow the fiscal deficit to expand to around 5 per cent of GDP in 1998. The draft budget for 1999 also incorporates a fiscal deficit of 5 per cent of GDP with public investment spending to be concentrated in the first half of the year. The actual application of planned spending is being monitored on a weekly basis to make sure that fiscal stimulus takes effect in a timely manner. Monetary policy has also been eased. Call rates have declined well below pre-crisis levels, although lending rates have declined less rapidly." But these adjustments of the 'permitted deficit' have turned out to be too little too late, and have failed to prevent the virtual collapse of GDP.

The reasons for this continuous flexibility with regard to the fiscal deficit and monetary policy are not hard to find. When the IMF programme began in early December 1997, the projection was that as compared with growth in GDP of around 5.5 per cent recorded in 1997, the growth in 1998 would be around 3 per cent. To quote the first letter of intent: "The

programme is intended to narrow the external current account deficit to below 1 per cent of GDP in 1998 and 1999, contain inflation at or below 5 per cent, and – hoping for an early return of confidence – limit the deceleration in real GDP growth to about 3 per cent in 1998, followed by a recovery toward potential in 1999." By February the GDP growth projection was placed at a positive 1 per cent, although zero or negative growth was seen as a possibility. By May the letter of intent projected real GDP growth at minus 1 per cent, while admitting that "more negative growth remains possible". Soon thereafter on July 24 the projection was changed to the objective of "containing the decline in real GDP to 4 per cent, with recovery starting in 1999". The memorandum of economic policies prepared for the IMF in November 1998 remains silent on growth in 1998 and includes in its macro-economic projections for 1999 the expectation of "positive growth resuming during the year; the timing and strength of recovery will depend critically on improvements in domestic confidence and the external environment". Very clearly the notion that larger deficits and the "early return of confidence" would trigger a recovery has not been realised. Deficits do not work because the economy remains open and their effects do not remain in the domestic economy.

Nor does restored investor confidence seem to matter. According to the IMF's executive board's assessment made in May this year, substantial progress has been made in overcoming the financial crisis. To start with, after continuous depreciation till March, the 'won' appreciated slightly and stabilised. In November the currency stands at around 1,250 to the dollar as compared with 1,620 to the dollar in February and 1,378 in March. Second, inflation is close to zero on a month-on-month basis since March and the annualised rate at 7 per cent in August is well below the 9 per cent target set in July and is heading towards the original 5 per cent target of December 1997 Third, after the debt restructuring agreement with foreign banks reached in early April, which converted private short-term debt into government guaranteed long-term debt, albeit at a high interest rate, the South Korean government has successfully managed a $4 bn bond issue. This compares with Malaysia's decision in late July to postpone a $2 bn Eurobond issue because of poor market conditions. Fourth, as a result of the contraction in economic activity imports of all categories of goods have virtually collapsed in the last quarter of 1997 and the first quarter of 1998, so that even with exports performing poorly, the current account has been in surplus since November 1997, with the surplus averaging close to $3.8 bn a month since February. Fifth, according to the IMF's assessment there has been a significant increase in portfolio inflows. Sixth, bargain hunting by international corporations seeking to pick up assets of beleaguered South Korean firms has resulted in large inflows of capital in recent months. According to IFR Securities Data, non-Asian buyers spent $6.52 bn in the second quarter of 1998 on deals in Japan, South Korea, Hong Kong, Malaysia, Thailand and Indonesia. This furthers an upward trend since the third quarter of last year, when the total was only $680 mn. Deals in the fourth quarter of 1997 reportedly fell just short of $3 bn, rising to about $5.5 bn in the first quarter of 1998. South Korea and Japan accounted for most of this increase in the value of takeovers. Finally, as a result of all this the usable foreign reserves rose sharply from less than $9 bn in December 1997 to over $40 bn in August 1998, surpassing expectations.

So the issue is not one of the persistence of a lack of confidence but of the fact that the return of such confidence has failed to spur economic recovery. This is because the kind of flows that sustained the speculative bubble of the mid-1990s cannot be expected any more. On the other hand, the IMF's 'adjustment strategy' which put South Korea on a traverse involving direct deflation through sharply curtailed capital formation, enforced bankruptcies and reduced government expenditures, has set off a cumulative decline which slightly more permissive fiscal regimes and restored investor confidence are finding too difficult to reverse. Within the IMF's framework, only a sharp turnaround in exports could have provided a new stimulus to growth. Unfortunately exports are taking a beating as the contagion from east Asia spreads to other parts of the world and begins to tell on growth in the industrialised countries as well. As Table 10 shows, to the extent that South Korea has been able to keep exports stable with the help of the depreciated 'won', the destinations which have mattered are the industrialised countries. While such exports have shown high and rising growth rates in recent quarters, exports to developing countries affected by the crisis have been contracting. However, if growth in the industrialised countries slows substantially, as is now widely expected, one dampening influence on the downslide in South Korea's GDP would [illegible] making even the much revised IMF estimates of negative growth for this year look like gross underestimates. Clearly, the IMF's policies have set South Korea on a disastrous traverse which creates conditions that undermine the ability of the system to realise the principal goal of the strategy: a restoration of growth with stability.

Further, the downward slide of the real economy is making the process of dealing with the financial crisis even more difficult. As we have mentioned, for the corporate sector the results of IMF-style deflation have been disastrous. Corporate insolvencies that averaged around 3,500 companies a quarter during the first three quarters of 1997 and rose to more than 6,000 during the last quarter were close to 9,500 during the first quarter of 1998. This has a financial implication. Corporate insolvencies were precisely the reason for the sharp rise in the non-performing credit of the Korean banking system in 1997. The non-performing credit ratio increased sharply to 6 per cent at of the end of December 1997 from 3.9 per cent at the end of 1996, because of the bankruptcies of large companies such as Hanbo, Kia, Halla, Sammi which held large outstanding credits. What emerges from Table 11 is that the non-performing credit ratio of the South Korean banking system actually fell from an average of around 7 per cent during 1990-93 to an average of about 5 per cent precisely during the years of the credit financed boom in South Korean industry during 1994-96. It was the subsequent reduction in growth that pushed this ratio up once again, by making it difficult for South Korean corporations both to cross-subsidise their operations and to meet their debt service commitments. With the collapse of growth this year, in all likelihood the ratios will touch new highs, unless they are 'concealed' through bank restructuring.

The implications are clear. The IMF's recipe for South Korea has not only failed to restore growth, but has also contributed to a worsening of the core financial crisis. So long as the costs of that 'error', determined by an overwhelming concern with protecting the interests of international finance and winning its confidence once again, were borne by South Korea's workers and white collar employees, the west accepted the virtual economic genocide of a nation. But as the evidence grows that the consequences of the crisis would touch on the bottom lines of the large corporations of the west and erode the livelihood of its own population, disillusion-

ment with the IMF has grown. But just as is true is Russia, in South Korea as well, this belated realisation could offer little to reverse the decimation of what was a vibrant domestic economy.

V
Conclusion

It is now being acknowledged by almost all observers that the current crisis in emerging markets may be more than a passing tendency or a simple cyclical downturn in the pattern of capital flows. It could be the beginning of the end of a particular phase of international capitalism, in which deregulation and increased economic integration – the typical features that are described as 'globalisation' – have led to dramatic material changes as well as a much greater degree of volatility and uncertainty.

It is increasingly evident that there is very little option to greater regulation of volatile capital flows, for developing countries who need a minimum degree of stability to pursue their own developmental goals. The alternative, it is now clear, is both too uncertain and too costly in terms of the economic devastation wreaked on citizens. Thus, in the most significant 'emerging markets' – those in east and south-east Asia, along with Russia – most domestic macro-economic changes in the past decade have been driven by capital flows, rather than the other way around. And because these capital flows have been relatively unregulated thanks to financial liberalisation, they have created domestic economic pressures which governments have been powerless to confront.

The most stark evidence of this comes from the extent of the macro-economic adjustment which has been forced on the south-east Asian countries in the wake of the capital outflow. Table 12 gives the pattern of current account deficits in these countries in the recent past. In the current year, barring Philippines which has managed to keep its surplus small, the other ASEAN-4 countries and South Korea are likely to be forced to generate current account surpluses of between 3 and 13 per cent of GDP. The most dramatic changes are in South Korea and Thailand, which have moved from the fairly large deficits of 1996 to relatively huge surpluses in 1998. These surpluses have been squeezed out of economies which are contracting heavily, and have meant declines in personal disposable income far in excess of the fall in domestic output. A look at the nature of the trade flows that have created such current account patterns is even more telling. Despite the massive devaluation of currencies in the region (by around 40 per cent for most currencies and nearly 80 per cent for the Indonesian rupiah) exports in dollar terms have hardly increased and in some cases have even declined. This is in spite of the huge effort in terms of increased export volumes. Thus, the improvement in trade balance has had to come from massive import compression in these economies, reflecting the general state of worsening depression.

The message for other developing countries is clear, and should not be allowed to disappear in the miasma of misrepresentation that the IMF and other institutions are seeking to spread, by focusing on 'crony capitalism' and other such tendencies which are clearly present in every single capitalist country, including those of the advanced west. Developing countries simply cannot afford to allow completely unregulated capital flows, and will have to rely on various different ways of controlling and regulating such flows in accordance with national priorities. Freedom from the uncertain pattern of growth driven by capital flows, in turn implies that these countries have to ensure that vulnerability on the current account is constantly under check. What the south-east Asian crisis suggests is that even medium-term export gains are not a guarantee that excessive trade liberalisation cannot lead to greater dependence on capital flows and a possible economic downturn.

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BJP's Defeat in Vidhan Sabha Elections, 1998

Widespread Erosion of Support Base

Sanjay Kumar

The assembly election results to the three north-Indian states shows that the disenchantment with the BJP is spread across all sections of the society. Not only was the party never the first choice of the dalits, the adivasis or the poor, it seems to have also lost support of the educated young elite and upper castes, the traditional base of the party.

THE results of the recently concluded vidhan sabha elections in four states marked a major political defeat for the BJP, Never before has a party in power at the centre been so badly defeated in a major round of state elections within a few months of forming the government. Usually the performance of a central government is not reflected in an election to the state assembly. Does the defeat of the BJP signify a vote against the performance of the central government?

The Congress, on the other hand, had a taste of electoral success after a long time. While it captured political power in Delhi for the first time after the creation of the Delhi assembly, it returned back to power in Rajasthan after a gap of eight years. More importantly, against all odds, it managed to register a second successive victory in Madhya Pradesh(MP). Its joy was not entirely unmixed, for it lost the elections in Mizoram after being in power for about ten years. Should the victory of the Congress be looked upon as the beginning of the comeback trail for the party at the national level? Also does the poor performance of the Third Front in all the states signal its end?

This article does not seek to answer fully these large questions which have engaged the attention of the media in the aftermath of election results. It seeks to achieve a modest objective, namely, to bring out some of the patterns inherent in the election verdicts. I begin the analysis with a close look at the electoral outcome in terms of votes and seats. This enables me to pose and tentatively answer some preliminary questions about explaining the nature of the verdict. I will then proceed to try and present a social analysis of the voting behaviour. I will question the prevailing wisdom that the BJP lost in the three north Indian states because some sections of the society swung decisively against it since the Lok Sabha election.

This analysis uses two kinds of data. The aggregate data on the current election results which is based on the preliminary data released by the Election Commission on the web (www.eci.gov.in). The aggregate data on the past elections and some reprocessing of the current data from the centre for the Study Of Developing Societies (CSDS) data unit. The article depends heavily on survey data for social analysis of voting behaviour which is drawn from the exit poll conducted by the CSDS in all the four states where elections were held. The sample for the exit poll was selected by multi-stage random method using the probability proportionate to size (PPS) technique in all the four states. Considering the variation in size of the different states, different proportion of the total seats was selected, i e, 25 per cent from Mizoram, 20 per cent from Rajasthan and 15 per cent from MP so that the size of the sample does not become too small for a small state. As a special case we selected 35 assembly constituencies in Delhi, practically every alternate constituency. From each selected constituency, three polling booths were randomly selected. In Delhi, however, four polling booths were selected from each constituency.

On interviewing approximately 50 respondents from each polling booth, we collected a sample of 1,472 from 30 booths in Mizoram, a sample of 5,822 from 120 booths in Rajasthan and a sample of 6,146 from 144 booths in MP. On interviewing approximately 35 respondents from 140 polling booths in Delhi, we collected a sample of 4,778 respondents.

The Verdict

The BJP suffered a major defeat in Delhi in these elections. The party had registered a thumping victory during the 1993 vidhan sabha election. It had won 49 seats and secured 42.8 per cent votes while the Congress had won only 14 seats and secured 34.5 per cent votes. The popularity of the BJP showed an upward trend in the two successive elections held thereafter. During the 1996 Lok Sabha elections, it polled 49.6 per cent votes. In the 1998 Lok Sabha elections, the party led in 52 vidhan sabha segments and polled 50.6 per cent votes.

In the recently concluded assembly elections, the BJP won only 15 seats and polled 33.9 per cent votes with the Congress securing 47.7 per cent votes and as many as 51 seats (see Table 1). The Third Force only got a notional presence. Shoeb Iqbal won the lone Janata Dal seat from Matia Mahal. The two independents, Matin Ahmed and Ram Singh, both Congress rebels, were successful from Seelampur and Badarpur constituencies respectively

The past one decade of politics in Rajasthan has witnessed a complete decline of the Janata Dal as a political force in the state. The marginalisation of the Janata Dal started soon after the 1990 vidhan sabha elections and very soon it was completely wiped out of the political map of the state. The absence of the Third Force resulted in a two party contest in the state. Both the contesting parties had a keen contest during the 1993 vidhan sabha elections. The BJP won 95 seats with 38.6 per cent votes while the Congress bagged 76 seats with 38.3 per cent votes. In terms of popular votes, both parties were very close but the widely scattered votes for the Congress, however, resulted in lesser number of seats for the party as compared to the BJP. With the further decline of the Janata Dal, votes for both the contending parties increased during the 1996 Lok Sabha elections. The Congress polled 40.5 per cent votes while the BJP polled 42.4 per cent votes. But reversal of the trend for two parties began during the 1998 Lok Sabha elections when the Congress led in 123 vidhan sabha segments and polled 44.6 per cent votes while the BJP led only in 56 seats and polled 41.5 per cent votes. The trend continued in the recently concluded vidhan sabha election. The BJP managed to win only 33 seats and polled 33.3 per cent votes while the Congress won a thumping majority of 150 seats and polled 44.8 per cent votes (see Table 2).

The impressive performance of the BJP in MP during the last two Lok Sabha elections in 1996 and 1998 made many believe that the party may win in the state this time. In the 1996 Lok Sabha election, the BJP won 27 Lok Sabha seats and polled 41.3 per cent votes while the Congress got only eight seats with 31 per cent votes. The performance of the BJP

further improved in the 1998 Lok Sabha election when it led in 222 vidhan sabha segments and polled 46 per cent votes. But the party suffered a setback in the recently concluded vidhan sabha election. The result of this elections is quite similar to that of the 1993 vidhan sabha election in the state. As compared to 117 seats and 38.8 per cent votes in 1993, the BJP won 119 seats and polled 39.3 per cent votes this time. The Congress in the recent election won 172 seats, only three seats less than those it had won during the 1993 vidhan sabha election and polled 40.6 per cent votes as compared to 40.7 per cent votes in 1993.

However, in fact, this election was very different from the 1993 election if we look at it in terms of the results in different regions of MP. The Malwa has been a stronghold of the BJP during the past few elections and the party had won 47 seats from here during the 1993 vidhan sabha election. In this election it lost a large number of seats here. It won only 24 of the total 89 seats here while the Congress won 61 seats and virtually swept this region. The Vindhya Pradesh is the region which touches the boundaries of Uttar Pradesh. In this region, the BSP had managed to increase its support base during the past few elections to a great extent, the Congress was relatively strong while the BJP had performed poorly. But this election marked the reversal of trend for both the parties in this region. The BJP doubled its seats winning 30 of the total 68 seats from this region, while the Congress went down to 23 from 37 seats it had won during the 1993 vidhan sabha election. The BSP also suffered a loss of three seats here and won only seven seats. In the tribal dominated the Chattisgarh region, which accounts for a total of 90 seats, the Congress suffered a loss of six seats and won 48 seats. On the other hand, the BJP increased its tally from 30 to 36 in this region. In the Mahakoshal region which acounts for 73 seats, the loss of four seats for the Congress was the gain for the BJP in this election. The Congress won 40 seats while the BJP improved its tally from 25 seats in 1993 to 29 seats in this election. So the regional pattern of the results makes it somewhat clear that there was a massive change in results in different regions of the state.

The victory of the Mizo National Front (MNF) in alliance with the Mizoram People's Conference (MPC) in the Mizoram elections has ended a decade long Congress rule headed by Lal Thanhawala in the state. In the 1989 vidhan sabha elections, the Congress won 23 seats in a 40-member house and formed the government headed by Lal Thanhawala. In the subsequent vidhan sabha election held in 1993, the Congress entered into an alliance with the Peoples Conference of Brigadier T Sailo. This regional front had joined the Janata Dal soon after the 1989 Lok Sabha election but even before the 1993 vidhan sabha election, it had withdrawn from the Janata Dal and named itself the Mizo Janata Dal. It consequently formed an alliance with the Congress, but its candidates contested as independents. During the 1993 vidhan sabha election, the Congress won 16 seats and polled 26.5 per cent vote but in alliance with MJD whose eight candidates won as independents, and formed the government headed by Lal Thanhawala.

The decline of the Congress started since the 1998 Lok Sabha elections when it led in only 13 vidhan sabha segments and polled 34.9 per cent votes while the Citizens' Common Front led in 25 vidhan sabha segments polling the same amount of votes. The MNF led in only two vidhan sabha segments and polled 26.8 per cent votes. In the recently concluded vidhan sabha elections, the Congress won only six seats and polled 29.8 per cent votes while the MNF won 21 seats with 25 per cent votes and its alliance partner in this election, the MPC won 12 seats polling 18.1 per cent votes (see Table 4).

Table 5: Flow of Seats in Delhi, 1993-1998

From\To	Congress	BJP	Others	Seats in 1993
Congress	14	0	0	14
BJP	33	15	1	49
Others	4	0	2	7
Seats in 1998	51	15	3	69*/70

Note: *Election not held for Nangloi assembly constituency.

Table 1: Vidhan Sabha Elections in Delhi, 1993-98

Party	1993 Vidhan Sabha		1998 Lok Sabha		1998 Vidhan Sabha	
	Seats Won	Votes Share (in Per Cent)	Segments Led	Votes Share (in Per Cent)	Seats Won	Votes Share (in Per Cent)
INC	14	34.5	16	42.6	51	47.7
BJP	49	42.8	52	50.6	15	33.9
JD	4	12.4	2	2.5	1	1.8
BSP	–	1.9	–	2.3	–	–
IND	3	5.9	–	0 7	2	8.7
Others	–	2.5	–	1.3	–	7.9

Table 2: Vidhan Sabha Elections in Rajasthan, 1993-98

Party	1993 Vidhan Sabha		1998 Lok Sabha		1998 Vidhan Sabha	
	Seats Won	Votes Share (in Per Cent)	Segments Led	Votes Share (in Per Cent)	Seats Won	Votes Share (in Per Cent)
INC	76	38.3	123	44.6	150	44.8
BJP	95	38.6	56	41.5	33	33.4
JD	6	6.9	2	2.1	3	1.9
BSP	–	0.6	–	2.1	2	2.1
IND	21	12.9	12	3.8	7	14.4
Others	2	3.3	7	5.9	2	3.4

Table 3: Vidhan Sabha Elections in MP, 1993-98

Party	1993 Vidhan Sabha		1998 Lok Sabha		1998 Vidhan Sabha	
	Seats Won	Votes Share (in Per Cent)	Segments Led	Votes Share (in Per Cent)	Seats Won	Votes Share (in Per Cent)
INC	175	40.7	89	39.7	172	40.6
BJP	117	38.8	222	46.0	119	39.3
JD	4	3.9	–	1.2	1	1.9
BSP	11	7.0	6	8.7	11	6.2
IND	7	5.8	–	1.4	9	6.2
Others	6	7.6	3	3.0	8	5.5

Table 4: Vidhan Sabha Elections in Mizoram, 1993-98

Party	1993 Vidhan Sabha		1998 Lok Sabha		1998 Vidhan Sabha	
	Seats Won	Votes Share (in Per Cent)	Segments Led	Votes Share (in Per Cent)	Seats Won	Votes Share (in Per Cent)
INC	16	33.1	13	34.9	6	29.8
BJP	–	3.1	–	–	–	–
MNF	14	40.4	2	26.9	21	25
MPC	8	13.2	–	–	12	18.1
CCF	–	–	25	34.8	–	–
IND and Others	2	10.2	–	3.4	1	12.3

Flow of Seats

One might think that in the wave against the BJP in MP, Rajasthan and Delhi, the party might have won only its strongholds. But surprisingly this is only true in Delhi where the Congress not only won a large number of seats, but also managed to retain all the 14 seats it had won in 1993. It is clear from Table 5 that the BJP also managed to retain the 15 seats it had won during the 1993 vidhan sabha elections. But this does not apply to the results in MP and Rajasthan.

If we look at the MP results at the constituency level, we find that there is a massive change as compared to the results of the 1993 election. Both the Congress and the BJP won nearly similar number of seats, but these are not necessarily the seats won by these parties in the earlier election. In fact, this time both the BJP and the Congress won a large number of new assembly seats and lost seats they had won during the 1993 vidhan sabha elections. Table 6 makes it clear that of the total 172 seats won by the Congress, it managed to retain only 103 seats and lost 59 seats to the BJP. At the same time it won 69 new seats of which 60 seats came from the BJP. It is not that the BJP won only in its strongholds. The BJP lost in more than half of those constituencies it had won in 1993, but at the same time secured 59 of those constituencies which were taken by the Congress in the previous election. This major change of seats from one party to the other in this election points towards anti-incumbency working against the party as well as the sitting MLAs. The voters rejected those candidates whom they disliked or who had not performed.

Even in Rajasthan in these elections, the BJP only managed to retain only 16 of the total 94 seats it had won in 1993 while it gained 15 seats from the Congress. It is clear from Table 7 that the Congress registered a major victory in this election winning a total of 150 seats. The Congress lost 15 of its previous seats to the BJP but at the same time won 75 seat which had been earlier held by the BJP. So there was a massive change in the results at the constituency level.

After winning two successive elections in Mizoram, the Congress was badly defeated in this election. It won only six seats but still managed to retain two of its previous ones. The MNF retaining nine seats lost two of its previous ones to the Congress. The large number of others in Table 8 represent different state parties as every new election in Mizoram witnesses the coming of a new party and the end of some existing ones.

Explaining the Verdict

The defeat of the ruling party in an election is generally summed up as an anti-incumbency effect by that party. If the Congress had lost the elections in MP, the BJP would have used the lame excuse of anti-incumbency to cover up their failure. Awestruck, the BJP leadership blamed the recent price rise of essential commodities for the party's thorough defeat. Escalating onion price, which had given the opposition a rallying point against the BJP government, ironically provided an excuse to the BJP leadership. Nature, God and 'Congress hoarders' were to be blamed for the BJP's defeat, said the party leadership. Our analysis, however, suggests that while price rise did have an impact on the electoral outcome. It was, however, not the only factor.

A look at the CSDS exit poll data does reveal the growing disenchantment of the people on the issue of price rise. It drove a large section of people away from the ruling party, the BJP. The data confirms that price rise was the biggest issue in this election. It influenced the choice of about 33 per cent voters in MP, 30 per cent voters in Rajasthan, 44 per cent voters in Delhi. However, a mere six per cent voters felt this was an issue in Mizoram. This could be because of the fact that there were other pressing issues the people were facing there. Corruption was one.

But this does not signify that it was a negative vote against the central government only on the issue of price rise, which was capitalised by the Congress. It may be somewhat true for the states of Rajasthan and Delhi where the BJP was in power at the state level, but it would be unjust to conclude the same for the Digvijay Singh government in MP. The CSDS exit poll confirms that a section of people in MP voted for the Congress because of the developmental work done by the Congress government. Of all those who voted for the Congress in MP, 24 per cent were influenced by the issue of development while in Delhi only nine per cent took this into consideration. In Mizoram, of all those who voted for the MNF and the MPC, 47 and 48 per cent respectively, were influenced by the issue of corruption.

If the rising prices of essential commodities, especially vegetables, turned a large number of people away from the BJP in general, the deteriorating law and order situation and general misgovernance during the last few months made the situation even worse for the party in Delhi. The CSDS exit poll indicates that nearly 44 per cent people were dissatisfied with the performance of the state government in Delhi and only 21 per cent were satisfied. A last minute change in the BJP leadership in Delhi to contain the growing discontent against the party did not work, and people in large numbers voted against the BJP in Delhi.

Nearly eight years of Bhairon Singh Shekhawat's rule has made BJP quite unpopular in Rajasthan. It is telling that 44.4 per cent people said that they were not satisfied with the performance of the state government. To make the situation worse, as high as 36 per cent people were

Table 7: Flow of Seats in Rajasthan, 1993-1998

From\To	INC	BJP	Others	Seats in 1993
INC	54	15	5	74
BJP	75	16	3	94
Others	21	2	6	29
Seats in 1998	150	33	14	197*/200

Note: * Elections not held in Kumbhalgarh, Bhim and Mundwa assembly constituencies.

Table 8: Flow of Seats in Mizoram, 1993-1998

From\To	INC	MNF	Others	Seats in 1993
INC	2	6	8	16
MNF	2	9	3	14
Others	2	6	2	10
Seats in 1998	6	21	13	40

Table 9: Issues Influencing the Voters Choice

Issues	Delhi	Rajasthan	Madhya Pradesh	Mizoram
Price rise	44.4	39.3	33 1	6.4
Corruption	9.3	14 0	15 4	37 9
Law and order	6 2	6.1	5.3	3 3
Atom bomb	6 9	7.2	5 6	0.7
Development	19 6	25.9	25.1	37.4

Table 6. Flow of Seats in MP, 1993-1998

From\To	INC	BJP	BSP	Others	Seats in 1993
INC	103	59	4	9	175
BJP	60	50	2	5	117
BSP	1	5	5	0	11
Others	8	5	0	4	17
Seats in 1998	172	119	11	18	320

also not satisfied with the central government where BJP is in power. It was not merely price rise which influenced voters choice, but corruption was also a major issue with a large number of voters. With growing dissatisfaction, the party, which had already witnessed a decline during the 1998 Lok Sabha election, was voted out of power by the people of Rajasthan.

It cannot be claimed that people were absolutely satisfied with the performance of the state government in MP, but developmental works initiated by the government left its impact on the election results. The benefits enjoyed by the people on account of the decentralisation of power to the local bodies, the provision of a primary school within a kilometre of any village that sought it and the watershed management projects to a great extent translated into votes for the Congress. Internal rivalry among party leaders and disgruntled rebels made the situation worse for the BJP and contributed to its second successive defeat in the state.

Ever since the two regional parties, the MNF and the MPC, formed a joint front, it was almost certain that the Congress would face a rough weather in the state it had ruled for almost 10 years. The emergence of the United People's Party, a coalition of splinter group of MNF and social activists added to the Congress's problems. Various corruption charges were levelled against the decade-old Congress government, which had its own impact on the voters. The CSDS exit poll confirms that corruption was the leading issue for the majority of voters in the state. This single issue influenced the choice of nearly 38 per cent voters. Among them 41 per cent voted for MPC and 28 per cent voted for MNF. Besides, in a state with a high level of literacy, the rising unemployment among the youth had eroded the ruling party's image and fuelled the anti-Congress sentiment.

Support Base of Political Parties

The convincing defeat of the BJP in the three states suggests that it has lost support among various sections of the society. But is its support spread evenly across all sections or is it strong among some and weaker among others?

The BJP had an enormous growth during the last two Lok Sabha elections held in 1996 and 1998 when it emerged as the single largest party in the Lok Sabha winning 161 and 179 seats respectively. This growth is largely attributed to the growing popularity of the party among various sections of the society. But surveys in the recent past has confirmed that the appeal of the party is not evenly spread across all sections of the society. Its social base is heavily skewed in favour of a few sections of the society. The support for the BJP is high among young voters, the upper caste, the educated and people with high occupation. Although some from the deprived sections of the society – the dalits, the tribals, the poor and people with low education – moved towards the BJP during the past few elections, the majority of them still voted for other parties. The CSDS exit poll conducted during this election reveals the support base of different parties among various social groups.

The decline of the BJP votes in all these three states makes one believe that the party has lost the backing of all sections of society, but a careful analysis of the results reveals that the party still draws large support from those social groups which voted for it in large numbers during the past few elections.

In urban areas, Congress got more votes than the BJP. The survey, however, shows that support for the BJP among urban voters is still higher in context of the total votes of the party. During the last few elections, the upper caste voters had gone for the BJP in large numbers but did not do so in this election. The exit poll reveals that the upper caste voters were divided equally between the Congress and the BJP in Rajasthan while they were slightly tilted in favour of the BJP in Delhi. But compare the votes for these two parties among the

Table 12: Swing as per Locality

Locality	Delhi	Rajasthan	Madhya Pradesh
Urban	12 0	4 9	6 4
Rural	9.0	5.3	5.0
Average	11.1	5.2	5.3

Table 13: Swing among Various Age Group

Age Group	Delhi	Rajasthan	Madhya Pradesh
Up to 25 years	9.2	4.4	4.6
26-35 years	10.6	5.2	5.4
36-45 years	12.3	6.1	6.0
46-55 years	12.5	5 3	5.2
56 years and more	10 8	5 2	5.6
Average	11.1	5.2	5.3

Table 14: Swing among Various Occupational Categories

Occupation	Delhi	Rajasthan	Madhya Pradesh
High service and professionals	12 0	6.5	5.6
Big business	10 3	5.3	3 4
Small business	11.5	5.6	4.6
Low service class	11.7	4.5	3.3
Agriculture	–	4.9	5.6
Manual labour	11.0	4.9	6.0
Average	11 1	5.2	5.3

Table 11: Support Base of Political Parties among Various Social Groups
Vidhan Sabha Elections (1998)

Social Categories	Delhi		Rajasthan		Madhya Pradesh		
	INC	BJP	INC	BJP	INC	BJP	BSP
Young voters	–0.4	–1.2	–0.8	–1.0	–1.2	+1.8	+0.2
Women	+4 1	-2 4	+1.9	+1.9	+2.5	–2 7	–0.3
Urban	+0.9	+6.7	+3 2	+1.0	+0 8	+4.4	-2.6
Upper caste	–9.2	+10.2	-7.0	+7 6	-7.3	+12.7	–2.9
Dalit	+11.5	–14.9	–2.1	–2 5	–1 4	-10.3	+10.3
Tribals	Neg	Neg	+12.7	-12.8	+7 0	–7 8	–0.1
High occupation	-5 2	+7.3	+2.8	+2.0	–4.9	+7 9	–2.0
Low occupation	+7.9	–9 7	–0 6	-1.4	+0.2	-1 3	+0 6
High education	–9.2	+12.4	–3 2	+1.9	-8 4	+9.1	–1.3
Illiterate	+13.7	–16.8	+5 3	–4 7	+4.8	–6.5	+1 4
Average vote (survey)	46.6	37.3	48.3	34.6	39.6	46.6	3 9
Average vote (actual results)	47 7	33.9	44.8	33.4	40.6	39.3	6.2

Note: The variation of support among different social sections has been calculated from the survey figure assuming that the discrepancy between the actual vote and the survey vote is evenly distributed among all sections.

Table 10: Satisfaction with State and Central Government

Level of Satisfaction	Delhi		Rajasthan		MP		Mizoram	
	State Government	Central Government	Central Government	State Government	Central Government	State Government	Central Government	State Government
Not at all satisfied	44.1	39 8	44.4	35.7	37.1	27 7	62 6	28.1
Somewhat satisfied	31.3	32.4	26.1	29.3	27.6	29.0	19.8	31.7
Very satisfied	21.3	23.3	25.8	29.7	27.3	32.9	13.3	15 3

upper caste as compared to their total votes. It will emerge that in spite of the reduced support for the BJP, this party is still popular among the upper caste in the three states.

In spite of the decline in support for the BJP among people with high education, white collared and professionals in the recent elections as compared to the previous elections, this party still draws large support from these sections of the society. Even though the Congress registered an impressive victory in these elections, its support among highly educated voters still remains low in all the three states.

The success of the Congress lies in the large support the party received from the poor, deprived and underprivileged sections of the society. The dalits, which constitute 19.6 per cent of Delhi's population, voted in large numbers for the Congress. In MP, the Bahujan Samaj Party received large support from the dalits. The Congress received overwhelming support from the tribal voters both in MP and Rajasthan.

The illiterates and poor people voted for the Congress in large numbers while the BJP received a raw deal from them. In Rajasthan and MP, the support for the two parties among the illiterates is not very lopsided. In Delhi, these voters clearly preferred the Congress. Voters with low occupations also chose the Congress in Delhi. There is also a shift in the preference of women and young voters during this election. They moved away from the BJP who they had supported during the last few elections in large numbers. A majority of the young voters in Delhi and Rajasthan backed the Congress. Women voters in all the three states did the same.

These findings prove that the upper class and upper caste character of the BJP has still not changed even after the party has been badly defeated. The Congress which used to be a party of the poor and the deprived in the past, but was facing rough weather during the past few elections, mainly at the hands of the Third Force, managed to win back the support of its traditional voters in the absence of the Third Force.

Swing of Votes from BJP to Congress (1998 Lok Sabha to 1998 Vidhan Sabha)

It is true that the BJP still draws more than its average support from some higher social groups while its popularity is below average among the lower social sections, especially the dalits, the tribals, the illiterate and the other underprivileged. But does it mean that the shift of votes from the BJP to other parties has been uneven, large in some sections of society and small in others? Many newspaper analysts have argued that the BJP was defeated because the lower sections of society – dalits, adivasis and OBCs – who had moved towards the BJP in the recent years switched their loyalty back to the Congress. If this was true, we should expect a clear divergence in the proportion of voters who swiched their loyalty from the BJP to the Congress between the Lok Sabha election in February 1998 and the November Assembly elections.

The CSDS exit poll was designed to test this hypothesis. We asked the voters to indicate not only who they had voted for that day but also to recall who they had voted for in the February Lok Sabha elections. The recall turned out to be fairly reliable. The figures presented through Table 12 to 16 are of the voters who shifted from the BJP to the Congress. The figures show the proportion of all voters of society. Among urban voters, the BJP support base is above its average, but there is little difference in the swing among the urban and the rural voters.

There is almost an even swing among all age groups of voters from the BJP to the Congress in all the three states. Though the decline of support for the BJP among the younger voters, who backed the party in earlier elections, is sharp, in terms of swing away from the BJP to the Congress it is more or less even. The swing is highest among middle age group voters in all the three states (see Table 13) because this working section of the society felt the pinch of price rise most.

If we look at the vote for the BJP among various occupational categories, we find that the party has received above average support among voters of high occupation and below average from those who belong to low occupations in all the three states as mentioned in Table 15. But it does not mean that the shift of voters among high occupation is less than that of voters in low occupation. There is almost a similar shift among all occupational categories. The swing is slightly higher among the high services in all the three states.

The BJP enjoys higher than average support among voters with high education. It got below than its average votes from illiterates during the recently concluded elections. Does this mean that the swing among the educated is lower than among the illiterate? The CSDS exit poll shows that the swing among all sections is more or less even except for the great swing among the highly educated voters in Rajasthan.

Even among voters belonging to different caste communities, it is hard to find uneven swings from the BJP to the Congress during this election. There are only a few exceptions. The swing among upper caste has been slightly higher in Rajasthan, somewhat higher among the Sikhs in Delhi and marginally higher among the tribals in MP.

What do these results show? What does the trend portend for the future? One thing is crystal clear. The disenchantment with the BJP is spread across all sections of the society. It is wrong to assume that the party lost these elections because certain sections of the society switched their loyalty. The BJP lost support in all sections. Chinks developed in the BJP's pocket-boroughs, the educated young elite and upper castes. It is also clear that the party is not the first choice of the dalits, the adivasis or the poor. There is a clear signal that the party will have to go beyond Ayodhya and Pokhran to retain its base. At the same time, everything is not hunky-dory for the Congress either. Though the party won the elections in MP and Rajasthan, many of its sitting MLAs lost in their constituencies. If anything, these elections suggest that performance is the key mantra. Rhetoric alone cannot win elections, it has to match with actions.

Table 15 Swing among Various Educational Categories

Education	Delhi	Rajasthan	Madhya Pradesh
Non-literate	10.0	4.3	5.3
Below matric	11.6	5.2	5.8
Undergraduate	10.7	5.4	4.6
Graduate and above	11.6	6.2	5.1
Average	11.1	5.2	5.3

Table 16 Swing among Various Caste/Community

Delhi		Rajasthan		Madhya Pradesh	
Upper Caste	11.2	Upper Caste	6.2	Upper Caste	5.0
Punjabi Khatri	10.8	Rajput	3.1	Rajput	5.7
Jat	9.5	Jat	5.4	Halba**	12.1
OBC	11.6	OBC	4.1	OBC	5.1
SC	11.0	SC	4.9	SC	3.8
ST	9.4	Mina	5.7	Bhil	3.3
Sikh	12.8	Other ST*	10.2	ST	6.2
Muslim	9.4	Muslims	5.5	Muslims	3.7
Average	11.1	Average	5.2	Average	5.3

Note: * Small sample. ** Very small sample.

People in Protected Areas

Koyna Sanctuary in Maharashtra

Milind S Bokil

If a meaningful debate is to take place on what appear to be conflicting needs and claims of wildlife preservation and forest and people's rights, we need to understand the historical, and ecological and socio-cultural issues in each of these areas. This case study of Koyna sanctuary and the people of the area is such an attempt.

IN India environmental awareness is steadily on the rise. It has been realised that the great mass of flora and fauna in the subcontinent is threatened due to the increasing pressure of urbanisation, industrialisation, commercialisation and ecological degradation. Various attempts are, therefore, being made to protect, regulate and conserve these resources situated in various ecosystems. A concrete manifestation of these efforts is found in the increasing notifications of wildlife sanctuaries, national parks and game reserves. However, these conservational efforts have also triggered off a controversy. It has been found that very often the notifications of protected areas transgress upon the rights and livelihood interests of the people situated in such areas and lead towards their displacement from the ancestral habitat. In fact, an intense debate about the justification, planning and management of the protected areas has been ensuing among forest officers, conservationists, environmentalists on the one hand and social activists, local community leaders and human rights advocates on the other [Kothari et al 1995:2755]

In order to sustain this debate and come to some meaningful conclusion, it is necessary to have systematic knowledge about the ground reality. It is essential to understand the historical and ecological setting of the concerned area, the livelihoods activities of the people and the socio-cultural and physical conditions. Above all, it is important to understand the wishes and aspirations of the affected people. What is required is a socio-anthropological approach with which a complex and multifaceted reality could be comprehended. Unfortunately, this is easier said than done. What one encounters is the insensitive, bureaucratic and rigid stand of the proponents on the one hand and emotional, unrealistic and equally dogmatic attitude of the protesters on the other. As pointed out by Guha (1997:349), the need is to have sociological studies of the origins of conflicts in the protected areas, their unfolding over time and the paths by which they may be resolved. This study of the Koyna sanctuary in Satara district of Maharashtra, is an attempt in that direction.

The Koyna dam is one of the largest dams in the Western Ghats. However, unlike other dams it has been constructed mainly for hydro-electric purposes. Its uniqueness lies in the fact that an eastward flowing river, Koyna (originating at Mahabaleshwar), was impounded in the hills and its water was diverted to the Konkan region on the west through tunnels built into the mountain. The dam and the associated hydro-electric works are considered to be engineering marvels.

The dam was completed in 1962 and submerged 98 villages in the Koyna valley. The distance from Mahabaleshwar to the dam site at Koynanagar is about 86 km. The villages belonged to two talukas, Javali and Patan. Historically, this was the area where Shivaji established his kingdom. The Koyna site was one of the most ideal sites in the Western Ghats and even the Tatas had eyed it for constructing a hydro-electric power station before independence. They abandoned the idea after the experience of Mulshi dam in Pune, where stiff resistance to the dam was offered under the leadership of the veteran freedom fighter, Senapati Bapat.

The displacement due to Koyna dam was the biggest of its kind in Maharashtra. The state government had offered to resettle all the dam oustees but the sites offered were scattered at far away places. Hence, in the first phase of this operation, only about 30 per cent of the villagers preferred to move out of the district. They were resettled at various localities in Thane, Raigad, Sangli and Solapur districts. The remaining villagers did not opt for the sites provided by the government and preferred to move either on the upstream hill slopes or downstream plains in the vicinity. The rehabilitation of the dam-oustees was a lengthy and tiresome process which has not been completed yet.

Koynanagar as the centre of a massive earthquake in 1967 which took a heavy toll in Maharashtra. There have been contrasting opinions about the correlation between seismic activities and the storage of water. The people on the downstream, however, panicked thinking that the dam might burst. Many of the dam-ousted families, who had come out of the catchment area and were settling downstream, decided to go back into the mountains. The local politicians encouraged them to do so. The irrigation department released the surplus land in their custody (which was acquired for the project but not used) and these people were resettled on the upstream hill slopes. Though the population was considerably reduced, about 55 villages were thus relocated in the catchment area (25 at the Patan end and 30 at the Javali end).

The combined population of these villages today is around 9,500. Needless to mention, they have been encountering considerable hardships, the most obvious being the problem of transportation and communication. The upstream villages are totally cut off from the surrounding world. The state government provided them pieces of land but did not provide any other facilities. Life has been miserable in the absence of roads, schools, dispensaries, markets, electricity, drinking water and other basic amenities. A ferry launch was started by the zilla parishad only in 1978. Till then, villagers from places like Dicholi in the Patan area had to cover a distance of nearly 40 km on foot to reach Koynanagar. Primary schools were opened also about the same time. Till date, there has been no primary health centre. Electricity has been provided only at a few places. The condition of about 20 villages in Javli area has been a little better as they have access from Satara and Maha-

baleshwar. But people in the remaining villages, especially in the Patan area, lead a pitiable existence.

The Koyna sanctuary is notified over the whole catchment area. Though it covers all the 55 odd villages, six villages in Patan taluka falling in the central core region have been the worst affected. These villages are nestled in the high mountain ranges at an altitude of about 3,000 ft. They are Mura, Kisrule, Zadoli, Ambeghar, Punavali and Dicholi. The original locations of these villages, except Dicholi, were submerged and, hence, they have been relocated at an altogether different and higher site. Dicholi was spared because it was previously situated on a hill top. At present, the ferry launch is the only means of transportation. It takes about two hours to reach these places from Koynanagar.

The Koyna region is characterised by broad hill plateaux around the peak of Mahabaleshwar. This is a very high rainfall area (6,000 mm and above). Traditionally this area has been inhabited by two communities: kunbis and dhanagar gavalis. The kunbis (also called as marathas) are the main agriculturist community in Maharashtra whereas the dhanagar gavlis belong to the dhanagar caste cluster who are shepherds and cowherds. Historical evidence suggests that these communities came to this mountainous tract from the eastern direction. The plateau lands on the east were earlier inhabited by animal rearing agriculturists. The first farmers of this region have been related to the post-Harappan period starting from 1800 BC. They were residing in the river valleys and there was no sharp differentiation between the agriculturists and the pastoral nomads. However, by about 1000 BC, the area witnessed a long span of aridity which destabilised the agricultural systems and some groups took to shepherding and cow or buffalo herding [Dhavalikar 1985].

The ecological history of this region is traced by Gadgil and Malhotra (1982). They have pointed out that the domestication of animals and plants as well as sedentarisation originated in the semi-arid tract of the Deccan plateau and spread into the higher rainfall zone. This implied a progressive destruction of tree growth into the higher and higher rainfall area. The destruction of gallery forests along the water courses in the semi-arid tract eliminated the possibility of a single pastoral group maintaining sheep and buffalo. The shepherds, therefore, remained in the semi-arid tract while buffalo herding dhanagar gavlis moved upstream of the water courses into the deciduous forest zone (at the foot hills) to the west. The agricultural frontier expanded with the kunbis coming into the area. As the tree growth in the deciduous zone was removed and land brought under cultivation by the kunbis, the gavlis had to move farther west into the higher rainfall zones towards the crest of the Western Ghats. The ability of the peasant community to displace the pastorals has been traceable to their numerical superiority, which has been due to the higher carrying capacity of the land for cultivators in comparison to the pastorals [ibid: 115].

Before the construction of the dam the kunbis resided in the valleys. They far outnumbered the gavlis staying on the hills. Even today, when both the groups are residing on the hill slopes, kunbis occupy the lower levels whereas the gavli hamlets are at a higher altitude. Traditionally, the kunbi villages also included the artisan and ex-untouchable castes. Almost all the artisans have now shifted out of the catchment area and the same is true of the ex-untouchables. At present, only a few families of the latter have been residing in the mountains. They have been classified as neo-Buddhists after their conversion to Buddhism but are appropriately called dalits.

The spatial differentiation between the kunbis and dhanagar gavlis gave rise to two distinct economies, agricultural and pastoral. The gavli dhanagars reared buffaloes without traditionally owning any lands. In Dicholi, however, they received lands under the Tenancy Act. In fact, many of the kunbis and dalits also received lands under the Tenancy Act. A large portion of land in these villages was assigned as 'inam' (land grant) to local chieftains and feudal landlords during the Peshwa rule in 18th century. The British colonial administration promulgated ryotwari settlements but did not disturb inam rights. They were abolished only after the independence under the land ceiling and tenancy reforms. Consequently, the kunbis began to cultivate the low lying paddy fields whereas the land owning dhanagars practised shifting cultivation on the hill slopes and grew ragi ('Eleusine coracana') and varai ('Setaria italica'). At present, as both the communities reside on the hill slopes, ragi and varai are the principal crops. Paddy is grown only on some small flat terraces. Some pulses and oilseeds are also grown at convenient locations.

The lands on the hill slopes are not measured or demarcated. Hence, though each household knows how much land he/she possesses, its exact location and demarcation is unknown. The lands are cultivated by mutual convenience, collective labour and general understanding. The productivity is very low. On the average, under standard climatic conditions, about six to eight quintals of ragi and three to four quintals of varai is produced per hectare. The productivity of rice is about eight to 10 quintals per hectare. Needless to emphasise, this type of agriculture is precariously balanced on the vagaries of nature.

The six core villages in Patan taluka were selected for the study and all the residents were covered under the socio-economic survey. The number enumerated here pertains to those who came back after the earthquake in 1967 (the gavlis from Dicholi had not moved out). For example, village Kisrule had about 200 households before 1962. About 60 per cent of them shifted to Bhivandi resettlement site in Thane district in 1962-63. The others did not opt for Bhivandi and preferred to settle in the nearby village Helwak on the western side of the mountains. Of them, 17 households came back after the earthquake and started staying at the present site which has been on a higher plane than the original. When the sanctuary was declared in 1985, eight of them again moved out to places where their kin were settled. The present number of 21 households has risen out of the remaining nine households. The number has increased due to successive partitioning among the fraternity. Similar process have occurred in other villages.

As the income derived from agriculture has not been sufficient, supplementary activities are carried out. Whereas the gavlis have relied on animal husbandry, the kunbis and dalits have been traditionally involved in wage labour and service. They have also been migrating out. Some of the migrants are currently working in Mumbai. These persons have been employed mainly as unskilled labourers in the unorganised sector. Many of them have been working as coolies in the vegetable market yards.

The animal husbandry practices of the gavli dhanagars in Koyna region are traditionally tuned to the ecological setting (a good description of the gavlis of Western Ghats could be found in Gadgil and Malhotra, 1982). They prefer buffaloes

over cattle. The buffalo is a sturdy and rugged animal. It can withstand the high altitude rain, cold, wind and other harsh conditions. It can also defend itself against predating animals. The gavli animals are not stall-fed, they are not even tied by a rope. The animals roam around the jungle and are gathered only in the evening. Very often camps are made in the jungle itself. The gestation period of a buffalo is quite long (15 to 18 months). As a result the gavli herd consists of a large number of unproductive animals. The milk yield is not significant. On an average a good milking buffalo produces two to three litres of milk per day. As the animals are free throughout the day, most of their energy is lost in roaming around and hence the feed to milk ratio is low. The gavlis tend to maintain large herds mainly because fodder is obtained free of cost and there is an inherent compulsion to retain the young as well as the unproductive animals for future utility. Previously, when there were no dairy societies, they used to prepare butter and sell it in the Konkan area. They used to retain buttermilk which was their principal source of protein. At present they sell the milk to a local co-operative dairy, started by a voluntary organisation, which operates a launch service. Gadgil and Malhotra, in the above cited study, have concluded that successive ecological degradation of the area has forced the gavlis to move from rearing buffaloes to cattle and goats and lately to wage labour. To some extent this has been also true of the Koyna valley

The agricultural and pastoral livelihoods activities are supplemented by the collection of non-timber forest produce. The principal among them is shikekai ('Acacia concinna') which is sold to the contractors authorised by the forest department. Similarly, kadhi patta ('Murraya koenigi') is gathered. Another important item is honey. Seasonal fruits like mango, karavanda ('Carissa carandas'), jambhul ('Eugenia jambolana'), amla ('Emblica officinalis') are also collected but they are consumed locally. There are a number of medicinal plants in the region but market channels are not well established yet.

The educational details of the respondents are provided in Table 1. It can be seen that the average adult literacy is as low as 24 per cent. The literacy level of the gavlis is very low. Female literacy is still lower. The literacy levels have been low because there were no schools after the dam was built. At present, schools are there only at Zadoli and Dicholi. The Dicholi school is in a good condition but the Zadoli building is dilapidated. The problem at both the places is that teachers do not come regularly as there is no convenient transportation. The quality of education is extremely poor as the schools are not equipped with any teaching material or educational aids. There is, however, a strong desire among the people to educate their children. This could be vouchsafed by the impressive number of children attending the schools. About 40 per cent of them are attending schools outside the dam area. Around 35 children from Dicholi are staying at Koynanagar for their schooling. A couple of them have passed SSC and are attending junior colleges. Only two people from Dicholi have completed graduation.

The absence of education and lack of exposure to outside world has had its effect on the socio-cultural life of the villagers. Superstitious beliefs and blind faith have been quite common, especially among the gavlis as traditionally they remained aloof from the rural society. These beliefs have caused considerable social trauma and disturbances. The position of women has been quite low among these communities, particularly among the gavlis. The women are anaemic, overworked, illiterate and repressed by the patriarchal system. Till recently, child marriage was the norm. The constricted character of the traditional society was exacerbated by the isolation and dislocation caused by the dam.

In the area under study a voluntary organisation named Shramajivi Janata Sahayyak Mandal (SJSM) has been active. This was founded by a local youth, Bal Kolekar in 1979 who comes from a modest dhanagar gavli family from Dicholi. His father was recruited in the Indian army in the second world war. Bal studied at Satara. He was the first graduate from his community. After graduation, he received training under the graduate volunteer scheme (GVS) of the Bombay University. This scheme was an attempt to attract the educated youth to the field of rural development. After completing this training, Bal came back to his village in the mountains. Unlike other rural youth, he started working for his people living in the Koyna catchment area. He founded the SJSM along with some of the local friends. Initially, an ashram school was started near Koynanagar. Thereafter various issues were taken up. An agitation was launched for basic facilities like education, health, transportation and housing in the catchment area. The SJSM worked with the vision of building people's organisations and initiating the process of development from within. Its emphasis was on establishing co-operative societies. Alongside, it also started a crusade against superstitions and evil practices among the gavli community. The work soon blossomed into multifarious activities as Bal and his colleagues toiled hard with commitment, devotion and perseverance. At present, there are more than 20 co-operative institutions and three voluntary agencies working under the guidance of the SJSM. It has undertaken large afforestation and watershed programmes in collaboration with the forest department and the state government agencies. There are six rural campuses, a herbal garden and research centre, a cane and bamboo production unit, an agricultural farm and a women's co-operative agro-products manufacturing society. In the span of last 20 years SJSM has emerged as one of the most effective NGOs in Maharashtra.

The Sanctuary

An area of 423.55 sq km, falling within the backwater region of the Koyna dam, was notified as Koyna sanctuary by the state government (revenue and forest department vide their notification no WLP/1885/CR/1588(1)F-5, dated September 16, 1995). This area consists of 16,110.94 ha of reserve forest, 6,353.63

Table 1 Educational Details of Respondent Households

Village	Agewise Breakup of Household Members			No of Literate		No of School-Going
	0-6	6-18	>18	6-18	>18	
Mura	11	17	34	9 (53)	3 (9)	9
Kistule	11	33	72	23 (70)	6 (8)	17
Zadoli	7	27	81	16 (59)	22 (32)	12
Ambehgar	5	25	85	13 (52)	27 (32)	20
Punavali	21	27	77	26 (96)	15 (19)	28
Dicholi	45	102	178	45 (44)	28 (16)	46
Total	100	231	527	132 (57)	128 (24)	132

Note Figures in parentheses indicate percentages

ha forest closed under Section IV of the Indian Forest Act (1927), 8,221.59 ha in the possession of other departments and 11,966.62 ha of private lands.

The forest is composed of two types: western tropical and sub-tropical broad leafed hill forest and west coast semi-evergreen forest. The prominent fauna consists of tiger, panther, wild cat, wild boar, deer, sambar, chital, mouse deer, chinkara, fox, wild dogs, sloth-bear, monkey, bison, porcupine, python, flying squirrel, etc. and bird species of green pigeon, Indian sand grouse, partridge, paradise fly-catcher, jungle fowls, etc. According to the census conducted by the forest department in May 1995, there were two tigers, six panthers, 57 sambars, 63 deer, 44 bisons, 14 porcupines, 45 bears, 54 flying squirrels, 65 wild boars, 11 langoors, 23 hares, and 10 foxes. The actual strength, according to the information provided by the locals, would be at least twice these numbers. Though conservation work has begun, demarcation of the sanctuary has not been completed yet. The necessary staff has been recently appointed and infrastructure is being established. The land acquisition reports to be filed by the district collectorate are said to have been prepared.

As soon as the sanctuary was notified the provisions of the Wild Life Protection Act (WLPA) 1972 have been brought into effect. Previously, the Koyna area was designated as a reserve forest. The elevation from the status of reserve forest to that of a sanctuary meant imposing more restrictions and curtailment of various rights previously enjoyed by the locals. Some of the provisions of the WLPA would make this point clear.

The WLPA says that "no person shall wilfully pick, uproot, damage, destroy, acquire or collect any specified plant from any forest land and any area specified by notification by the central government and possess, sell, offer for sale, or transfer by way of gift or otherwise, or transport any specified plant whether alive or dead or part or derivative thereof" (Section 17A). Only a member of a scheduled tribe is allowed to pick, collect or possess in the district he resides any specified plant for his bona fide personal use (None of the above communities are recognised as scheduled tribes). The Act also prohibits cultivation of and dealing in specified plants without licence (Section 17C and 17D). It explicitly says that the specified plant or part or derivative thereof shall be the property of the central government (Section 17H). As for hunting, the rules are quite stringent and they prohibit hunting of scheduled wild animals (Section 9). Only in certain cases, as approved by the chief warden, hunting of wild animal is permitted (Section 11). There are also various restrictions on the entry into the sanctuary, and the persons residing in the sanctuary are bound to perform certain duties for the enforcement of the act (Section 27). Immunisation of the livestock kept in or within 5 km of a sanctuary is compulsory and the act says that "no person shall take or cause to be taken or grazed any livestock without getting it immunised" (Section 33A).

Needless to mention, these restrictions adversely affect the traditional lifestyle of people who are intimately dependent upon the forest and are involved in agricultural and pastoral occupations. The act not only hampers their livelihoods activities but also affects their freedom and mobility. It prevents them from taking wild fruit, flowers, leaves, timber, grass, fuel wood and other forest produce which essentially supplement their sustenance. The customs and practices which till date are a part of life have now become crimes and offences.

In the first two to three years the impact of the sanctuary was not discernible and, hence, the people did not take it seriously. But gradually the noose was tightened. Firstly, the forest began to grow as a result of the protective measures. Felling of trees (legal and illegal) was stopped. The forest canopy became thick and extensive. Previously, the forest was at a certain distance from the villages, separated by agricultural fields. But as the villages were resettled on the hill slopes the forest came closer to people and so also the wild animals. Their population also began to increase. The effect of the increased population of the wild animals has been quite decisive. The villagers had been in the habit of using a grass called 'kolamb' for thatching the roof. This grass, which grows on the hill slopes, was consciously preserved by the local people. Before the spread of Mangalore tiles this was the standard roofing material all over the Koyna valley. This grass was totally destroyed by the bisons. They not only uprooted the stalks but also pounded them so that future growth became impossible. The roofs have to be thatched annually before the rainy season. In 1991-92 all the grass was destroyed and the people were shelterless. This matter was brought to the notice of the forest department. However, no action was taken. An agitation was launched under the guidance of SJSM. The forest department did not provide any help but compensatory grants were provided by the then chief minister from the Chief Minister's Fund. Mangalore tiles were distributed in all the six villages and the problem was somehow resolved. The bisons have also attacked human beings. In at least four cases bisons caused serious injuries.

The second problem has been due to wild boars which are a menace to the crops. The ragi and varai fields are along the hill slopes and are easy targets for the boar. No protection has been effective against their assault as they strike mainly at night. They have also been attacking the paddy and corn fields near the villages. Previously, the villagers used to hunt the boar and, hence, their population was kept in control. As hunting was prohibited the boar began to roam freely and menacingly. Villagers report that only 40 to 50 per cent produce can be effectively salvaged. As mentioned earlier, agriculture on the hill slopes was already precarious and the menace of the boar has caused a great set back.

Another intimidating animal has been the black bear which is a herbivorous animal but is notorious for attacking human beings. It particularly attacks the face and upper limbs. It is a matter of common experience that people living in such situations do not fear predators but are afraid of the bear. Previously, the instances of attacks by the bear were known but they were sporadic. With the sanctuary, the attacks have become more frequent. The worst victim has been one Laxman Kolekar from Dicholi whose eight year old son was killed in 1993 by a bear in the vicinity of the village. The children were playing near the stream and suddenly the bear pounced upon them. The older children ran away but two of the smaller ones were caught. One could run away with minor injuries but the other was killed on the spot. His head was broken and the face was completely distorted. The family was given a cash compensation of Rs 10,000 by the forest department and the father of the boy was given employment as labourer on daily wages.

The most alarming threats have come from the population of panther and tiger which has increased due to the protection measures and they have begun to frequent the villages. Cattle and goats are easy prey. There is hardly a household in these villages which has not lost an animal in the last

two years. 56 big animals like cows and bullocks, 33 calves and heifers and 24 goats have been killed by the predators between June 1994 and May 1996. In Dicholi animals have been killed in the vicinity of the villages. Many of them have been lifted directly from the houses. During our stay in Dicholi, a panther visited the village on three consecutive nights and killed three goats. Its pug marks could be easily seen in the morning. Till date, no human being has been attacked but the people have begun to fear that it might also happen.

Another problem has been with regard to the collection of fuel wood and non-timber forest produce. Previously, people could bring fuel wood and non-timber produce safely from the adjoining forest for their domestic use. With the declaration of the sanctuary this activity has become illegal. The forest department has stopped auctioning the non-timber forest produce. Collection, transport and sale of products like 'shikekai' 'kadhi patta', honey and other things have been banned under the WLPA. Thus, a major source of supplementary income has been lost. This loss has been estimated at about Rs 2,500 per annum per household. The forest department has also put restrictions on fishing in the lake. The fishing co-operative established by SJSM has about 50 members and has been authorised by the irrigation department to fish in the lake. The sanctuary administration has, however, taken objection to this activity, the forest department has become very powerful and this has resulted in harassment of people.

Restrictions are also being imposed on the movement of people. Contact with the outside world is being curtailed by the rules and regulations of the sanctuary. The isolation caused by the dam has, therefore, worsened. Since 1993 (after the Mumbai bomb blasts), Koyna lake has been subject to stringent security arrangements Earlier trekkers and mountaineers used to frequent the valley. Now visiting the sanctuary from the Koynanagar end has become almost impossible.

The WLPA is related to the protection of wildlife and, hence, does not speak about the loss of other forms of life. The provisions applicable to the reserved forest area are, therefore, enforced with respect to compensation. The forest department has certain rates prescribed for compensating the loss of animals or human beings. The rates are as in Table 2.

These rates of compensation all shamelessly paltry. The present market price for a goat would range between Rs 900 to 1,200 and that of a cow between Rs 4,000 to Rs 6,000. The price of buffaloes and bullocks are much higher. For the forest department the value of human life is not more than Rs 20,000 and permanent disability is valued at only Rs 6,000. Also, these are the upper limits which are seldom reached while granting the compensation. The forest officials use their discretion and give as little as possible. It was reported that the compensation normally received for a goat ranges between Rs 75 and 150 and that for a cow between Rs 1,200 and 1,800. The discretionary nature of compensation leaves plenty of room for malpractices.

The procedure for claiming the compensation is also complicated and time-consuming. In the Koyna area it has become much more traumatic in the absence of transportation and communication facilities. The person whose animal is killed has to report the incident to the forest official at Koynanagar so that the latter can make a 'panchnama' (inspection). For this purpose the presence of the 'talathi' (village record keeper) is essential because the key issue is the place of the kill. The talathi alone is capable of identifying the survey number of the spot and deciding whether it falls within the boundary of the forest of that of the village. The owner is supposed to retain the carcass at the spot till the panchnama is carried out. Compensation is allowed only if the animal is killed outside the forest.

In the Koyna area this means that a person has to immediately take a launch to go to Koynanagar (the launch comes only in the morning and does not operate during the rainy season), inform the forest official about the incident, then search for the talathi and bring him along with the forest guard to the precise location. The talathi is often not traceable and will not necessarily come to the spot in the remote jungle. The same is true of the forest guard. It takes at least 24 hours before this party arrives at the location. The necessary costs of bringing these persons are to be borne by the owner which also means a good deal of out of pocket expenditure. The location of the kill is often a matter of dispute as most of the time the predators drag the kill to a place of their choice, mostly inside the forest. In such a case it does not become eligible for compensation.

We were told in the concerned villages that the cost of carrying out the panchnama is around Rs 200 per incident. And the compensation (if at all one gets it) is Rs 75 for a goat. Hence, few villagers want to get into the procedural muddle. They simply dispose of the carcass and blame their fate. Of the 110-odd incidents that took place between June 1994 and May 1996, panchnamas were carried out in only four cases, that also, when a big animal was killed. Compensation was received only in one case (Rs 1,500 for a cow). In all the remaining cases, the owners spent around Rs 300 to 500 each but without result. The total cost of the animals killed in these two years would be around Rs 2,13,000 at a very conservative estimate (Rs 3,000 for a big animal, Rs 1,000 for a small animal and Rs 500 for a goat). This is the direct loss caused by the sanctuary. The loss of crops and that of the forest produce is another matter.

When living conditions became difficult, people grew restless and petitioned the SJSM to look into the matter. Initially the SJSM tried to arrange relief as in the case of the 'kolamb' grass issue. It then tried to articulate the problems and presented the same to the concerned forest officials. It also took up the matter with the local MLA and compelled him to raise this question in the state legislative assembly. Alongside, it sent petitions to the higher officials of the forest department. In order to mobilise all the people effectively, it formed a committee called 'Koyna Abhayaranya Kriti Samiti' with representation from all the six villages.

Following these demands, the divisional and regional forest officials visited the area on a number of occasions and listened to the grievances. Initially, there was no discussion about rehabilitation. In fact, SJSM was of the opinion that people need not leave the place but try to get their grievances sorted out. It was believed that displacement of this kind would not be beneficial. Instead, appropriate public works could be planned so as to make the best use of the surrounding resources. At that time, people were divided on the issue. Some favoured resettlement whereas others wanted to stay on. However, as the problem deepened and the very survival was threatened, they unanimously began to

Table 2

(In rupees)

Loss/Damage	Maximum Amount of Compensation
Cattle/buffalo	3,000
Goat/sheep	750
Human life	20,000
Human disability	6,000

demand resettlement and rehabilitation. SJSM had to bow before the wishes of the people.

Then onwards efforts were made in that direction. It included petitioning to the forest department, raising the issue in the state assembly, involving people's representatives like the MLAs and MPs and launching a persistent campaign. Fortunately, the forest department appreciated the problems caused by the sanctuary and was open to discussion and negotiation. The idea of rehabilitation was favoured by the department. The people wanted to move out of the sanctuary but not out of the Koyna region. Hence, an idea of exchanging forest lands elsewhere in the district with the sanctuary lands was mooted by the department. This proposition was accepted by the people and it was subsequently followed up. The local officials provided excellent co-operation. The people approved eight locations within the district and the department was asked to forward the proposal for further action. The matter has been pending at this stage.

Though the need for resettlement and rehabilitation has become apparent, there are certain issues that need to be sorted out before this process could be set into motion. First, though the department has approved the resettlement in principle, there has not been any formal commitment. People have received notices after the declaration of the sanctuary but no further action has been taken. On the other hand, the necessary establishment for the sanctuary is being set up. It is not yet clear whether the forest department would carry out the resettlement or the people would be treated under the Maharashtra Project Displaced Persons Rehabilitation Act 1976 (amended in 1986). This act is fairly comprehensive and guarantees a number of benefits to the project affected persons. The question is whether this would be a simple resettlement (on the principle of land for land) or rehabilitation in the true sense of the term. The pertinent questions are: What would be the basis of rehabilitation? How would be the property compensated? What facilities would be provided at the new site? What kind of rehabilitation package would be offered? And so on.

The second problem is the Indian Forest Act (1980), according to which the rights of transferring the forest land to non-forest use are vested with the central government. Thus, the permission of the central government would be required to transfer the forest lands in the district to the names of the sanctuary-affected people. This is bound to be a time-consuming process unless the forest department acts promptly. The third problem is the valuation of the respective lands. Private lands in the sanctuary are much sought after by the forest department as it would create a contiguous, uninterrupted belt. From the point of view of forests these are excellent lands but their market value would be very small. On the other hand, the forest lands near the cities would have higher market value. The sanctuary affected people might lose in the bargain.

The fourth problem is that, excepting Dicholi, all the other villages are dam-affected villages whose rehabilitation has not been completed yet. A few years ago, the state government released surplus lands in the Ujani Command area in Solapur district for resettlement. Some people have accepted these lands but have not yet shifted to the new localities. Would they be eligible for rehabilitation under the present package? In what way would their rights be reconciled? What about the people who do not stay in the catchment area but continue to hold land there? These questions also need to be clarified. Besides these there are a number of small and technical problems but which could be sorted out once a basis of rehabilitation is determined.

The Koyna case is significant for a variety of reasons. In the first place, there is the contradiction between wildlife conservation and human rights protection. The conflict is inevitable because people have been staying there for generations. There is a clear clash of interests between people's livelihoods and environmental ideals.

One approach of solving the conflict is joint protected area management. This approach is considered as one of the most reasonable ways of attaining both the objectives of wildlife conservation and continuation of people's rights [Kothari et al 1996]. Needless to emphasise, this option is ideal wherever suitable opportunities exist as it avoids undue and unwarranted confrontation between the state and the people. In some areas, however, this would be difficult due to peculiar geographic, historical and socio-economic conditions. The Koyna area is a case in point. The geographic location of the sanctuary is the main impediment. Had the sanctuary been located on a plain area, the approach of joint protected area management would have been relevant. The sanctuary is created against the backdrop of submergence and displacement. People's perception and aspirations have become different as they have suffered enormously in the past 35 years. The geographic, ecological and social situation is such that either wildlife can survive or the people. Forcible coexistence would be detrimental to both.

The villagers in the sanctuary area are demanding rehabilitation. This is some-

what unusual in today's situation where a case is often made against any kind of displacement and subsequent rehabilitation. Why are they keen on moving out of the area? A number of interesting factors are responsible. People have begun to feel that if they continue to live in the area, then their very survival is threatened. They cannot continue with their traditional lifestyle of pastoralism and shifting cultivation nor can they shift to conventional agriculture. The sanctuary has foreclosed these options nor can they cope with the wild animals. Secondly, it has been realised that the catchment area would always remain isolated due to its peculiar geographic situation and there would be serious structural limitations to its growth and development. The implication of this is that basic civil amenities would never become available and integration with the mainstream society would be near impossible.

Thirdly, the development aspirations of the villagers have increased. The younger generation does not want to live in the remote and inaccessible mountains. Nor are they interested in pursuing a primitive lifestyle which does not guarantee even the basic minimum subsistence. Like their counterparts in rural area they want to be educated, live in cities, pursue a new occupation and share the prosperity of modern life. They have realised that their rising expectations cannot be met by staying in the catchment area. Fourthly, there is a strong feeling among the people that they have made a great mistake in not moving out of the area when it was submerged. The socio-economic condition of those who moved out has improved considerably. This sense of deprivation and the feeling of 'left behind' has compelled the people to think differently. They feel that this time they do not want to miss the bus.

There is also a notion among the enlightened section of the villagers that if they continue to live in the mountains then their society will continue to follow age old superstitions, blind faith and evil practices. The condition of women, for instance, cannot be improved. The community will continue to live in a stagnant, parochial and constricted manner.

The broader question that emerges from this case is what is going to be our perspective for the development of communities living in remote and inaccessible areas. What are these communities to do when unforeseen and irreversible changes are brought about in their eco-system? Are they supposed to have aspirations and ideas as the rest of the society? Can a shepherd boy/girl hope to become a veterinarian? Should he/she dream of going to Harvard or Cambridge? Or should they stay on where they are, fully knowing that basic amenities like roads, schools, electricity and dispensaries cannot be provided. Are they supposed to have a choice about how they would like to develop their communities and themselves?

Unfortunately, these questions are not addressed by the discourse on conservation and social ecology. The issue of people's aspirations is totally bypassed by the conservationists, ecologists, foresters, bureaucrats and human rights protagonists when they prescribe approaches and solutions. Naturalists and social scientists are also blind to it. The famous study on dhanagar gavlis by Gadgil and Malhotra (1982) does not even bother to inquire into the literacy status of the dhanagars which is an essential parameter of change and development. It does not mention the stagnancy of their social organisation (especially their blind faith and superstitions) caused by ecological isolation. Another issue is what is going to be the perspective towards the protected areas? Are they expected to become true sanctuaries of the endangered flora and fauna or interactive habitats of humans and animals. If humans are allowed, then at what level of technological development should they remain? What kind of social and political organisation should they have? What limits of consumption and growth should they observe?

In protected areas where wildlife and human interests are pitted against each other, the contradictions have assumed violent forms. So far this has not been the case in the Koyna area. Here an attempt is being made to settle the dispute in a constructive manner. Though the local people have suffered considerable hardships they have not taken any measures harmful to wildlife. To a great extent the credit goes to the maturity and understanding exhibited by the SJSM. As mentioned by Rangrajan, the constructive groups (like this one) have a very critical role to play as "their strength lies in their ability to evolve creative solutions to existing problems that not only improve livelihood but also increase the elbow room of disadvantaged groups in their struggles" (1996:2406).

The World Bank has been assisting the Maharashtra Forestry Project in which the management of protected areas is a key feature. A separate Settlement and Planning Cell has been created in the office of the chief wildlife warden. This cell is responsible for helping to find solutions to questions regarding whether to resettle people living within protected area (PA) boundaries and how to accomplish such resettlement practically and within Bank and government norms. The idea of resettlement was suggested by the forest department and hence they should follow it up. The present case provides a rare opportunity to the World Bank and the forest department to implement the rhetoric of satisfactory rehabilitation with assistance from a voluntary agency. The ministry of environment and forests also has a scheme for assisting voluntary resettlement of people. Unfortunately, the state forest departments have not made use of the scheme.

The issue of conservation of wildlife and protection of human interests needs to be considered in totality and judged upon the individual merits of the case. Instead of taking predetermined positions, it is necessary to understand the ground reality from the viewpoint of the affected people. The present case shows that the real life situation is a complex one. Though the objective of wildlife protection is a laudable one, it cannot be accomplished by sacrificing human interests. Environmental conservation needs to go hand in hand with social justice. In situations where these interests conflict with one another, appropriate solutions need to be put forward without delay. Otherwise, neither of the objectives will be achieved.

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Pattern of Utilisation of Health Services

Policy Implications

C A K Yesudian

There are a number of misconceptions about the utilisation patterns of health care among the poor. This has led to the formulation of inappropriate urban health services especially targeting the poor. A survey of utilisation patterns of health services among the poor in two areas in Mumbai provides some insights which may be useful for policy formulation.

IN order to have public health/medical facilities in urban areas that are responsive to the poor, one has to have a broad and meaningful cultural context of the poor, their epidemiology, their tastes, and how they live. Certain stereotyped ideas of the poor often mislead the policy-makers into taking inappropriate decisions. These ideas include the belief that the poor have a uniform socio-economic level and that they mainly suffer from communicable diseases and malnutrition. Other ideas about the urban poor are that they do not perceive their health needs properly. Therefore special programmes for them, like the health post programme, must be specially planned and target them specifically. Another misconception is that the poor fully depend on public sector health services alone and hence this sector should be expanded. Health services planned and based on such misconceptions often fail to serve the real demands of the urban poor.

The lifestyle of the urban poor could be as complex as the lifestyle of the urban non-poor. Their health problems too can be varied and the poor often do understand their health needs very well. Given their socio-economic conditions, the poor also take rational decisions to utilise not only the public sector health services but also other health care resources available in urban areas. They may have different reasons to use different sources of health services. For example, the poor may utilise the health services despite their poor quality for an acute illness because of economic reasons.

This paper attempts to shed some light on these problems by examining through the survey results, two distinct poor areas of Mumbai. The survey intends to look into the health policy implications from the community's perspective, which is neglected in urban health policy-making process. The purpose of the survey is to determine how the demand for public health services was either met or not met by the existing types, kinds and locations of services. Consequently, utilisation patterns within and between the two areas are compared as are explanations for their similarities and differences. Suggestions for policy-makers follow.

The population of Mumbai in 1991 was 10 million. As estimated 45 per cent of Mumbai's population live in slums or slum-like areas. The Municipal Corporation of Greater Mumbai is the major public sector health service provider in Mumbai. It has a wide network of health services which includes teaching hospitals, general hospitals, special hospitals, maternity homes, dispensaries and health posts. These health services are mainly intended to serve the poor.

The poor of Mumbai live in specific geographical areas in different parts of the city, mostly in environments with poor housing and poor environmental sanitation. While most of the poor areas in the central part of the city are congested and located in small areas, in the suburbs and extended suburbs, clusters of huts can be seen in vast open land with few basic amenities. Often they are in undeveloped marshy land. The size of slums varies from half a million population in a slum like Dharavi to a few thousand living in some of the new slum areas.

Two contrasting study areas were selected to highlight the differences in the utilisation pattern of health services among the urban poor. The study areas, Naigam and Deonar were selected based on their differing living conditions and the availability of health services. While Naigaum is a highly congested slum in the central part of the city, Deonar is a suburban sprawling slum surrounded by marshy land. In Naigam, housing and basic amenities are planned, though they are old, whereas in Deonar, the area was never developed for human living and there is very little basic amenities like water supply and sanitation facilities. In terms of health services, Naigaum is situated in an area where almost all the major public sector health care facilities are located, which includes the city's biggest teaching hospital, biggest maternity hospital, biggest children's hospital and the nation's premier cancer institute apart from a social insurance hospital, municipal maternity hospital, dispensary and a health post. On the other hand, Deonar has only a few health care facilities. Even the maternity home, dispensary and health posts are situated 2 to 3 km away from the study area. Thus Naigaum and Deonar present a contrasting picture in terms of their physical location, development of the area and the availability of public sector health services.

A structured interview schedule was used to collect data from both the survey areas. The interview schedule was divided into different sections which included demographic, socio-economic, housing and basic amenities sections and a detailed section on the utilisation of health services. This main section was further divided into utilisation of health services for minor illnesses, acute illnesses and chronic illnesses as well as maternal and child health services and family planning services. The final section of the interview schedule emphasised the extent of utilisation of municipal health services as well as the reasons for the utilisation/non-utilisation of municipal health services.

Different recall periods were used for different illnesses. For minor illnesses, the recall period was one year. In the case of multiple minor illnesses in a household within a period of one year, the last illness was considered for the study. Current chronic illnesses were taken for the study. In less than 1 per cent of the households, there were two persons suffering from chronic illnesses and information regarding both cases was collected. Acute illness was defined as those illness conditions which called for hospitalisation. This excluded hospitalisation meant for child delivery. The recall period for acute illness was one year. In the case of multiple acute illnesses in a year in a single household, the last illness was recorded. Information regarding maternal health services was collected for the last child delivery, if it had happened within the last five years. Immunisation data for children under five years were collected. Family planning

utilisation data were collected for married persons in their reproductive age group of 14 to 44 years. In the case of minor illnesses, a little over 5 per cent of the patients had changed the source of treatment. Only 3 per cent of chronic illness patients had changed the source of treatment. The study recorded the details of the last source of treatment only.

It should be mentioned here that the illnesses were not identified objectively by a medical professional. They were the subjective perception of the respondents. Therefore broad categories were used rather than specific illness categories. Stomach illness included diarrhoea and dysentery. Respiratory illnesses identified were tuberculosis, asthma, etc, and fevers included cold and fever, influenza, enteric fever, etc. All the surgical procedures were clubbed together. A majority of the surgical procedures were meant for removing appendicitis and hernia and procedures related to fractures.

The data collection work was carried out in the year 1987. A 10 per cent sample was selected for the survey. In the absence of any reliable data base to select a sample, it was decided to interview every 10th household starting from the left hand corner of the slum as far as possible, though it was difficult to follow the order in certain areas as the houses were not in a line. If the 10th household was closed or refused to respond, then the 11th household was requested to respond. On the whole, there were very few replacements of the selected sample households. The interviews were conducted by trained interviewers. The respondents were either male or the female adult member of the household, a majority of whom were female members.

Differential Lifestyles

This section of the paper analyses data to show that the urban poor within the city have different lifestyles. Demographic, economic and social variables were analysed for this purpose. The total sample population of Naigaum was 4,624 persons, whereas the total sample population of Deonar was 3,730 persons. The average household size of Naigaum was 5.6 and that of Deonar was 5.4. Deonar had slightly higher proportion of children (43 per cent) in households than the Naigaum households (38 per cent). The age structure, sex-ratio and marital status did not vary between the two communities. Other variables discussed here are presented in Table 1. Both the communities (Naigum and Deonar) differed in their social composition. Deonar was more heterogeneous than Naigaum in terms of caste, religion and mothertongue. Naigaum had fewer migrants and most of them had stayed in Mumbai for a longer period. On the other hand Deonar had more recently settled migrants.

In Naigaum there were fewer illiterates and more higher educated persons as compared to Deonar. Naigaum residents were slightly better off in their economic status. Housing and basic amenities like water supply and drainage were far superior in Naigaum. In Deonar, people lived in huts using the few public stand posts for water. There was no closed drainage in Deonar. Though both were poor communities, the quality of life seemed to be superior in Naigaum which had higher economic status, better housing facilities and public amenities than Deonar. The Naigaum community was more homogeneous, and had also been settled in the area for a longer period.

Morbidity: Deonar households reported fewer illnesses than Naigaum households: while 63.4 per cent of the Naigaum households reported more than 15 episodes in one year, only 49.9 per cent of the Deonar households reported more than 15 illness episodes in the same period. Detailed analysis of morbidity data are presented in Table 2. All categories of illness were found more or less in equal proportion in Naigaum and Deonar. However, within each category illnesses varied between the two communities. For example, Deonar had higher proportion of stomach ailment in the minor and acute illness categories. In the chronic illness category, heart diseases and diabetes were found to be in higher proportion in Naigaum. On the other hand, the main chronic illness of Deonar was respiratory diseases. There was a large proportion of physical handicap due to polio in Deonar. On the whole, the illness pattern of Deonar was typical of a poor community, suffering from preventable diseases. on the other hand, epidemiological transition is quite vivid when we look at the chronic illnesses prevalent in Naigaum.

Mortality: The analysis of data on mortality (Table 3) shows strikingly significant variation between Naigaum and Deonar. Though the proportion of deaths to total deaths in one year did not vary much between the two communities, the distribution of deaths by age showed significant differences. Half of those who died in Deonar in the previous year were children up to the age of five years. The situation was just the opposite in Naigaum where a little over half of the dead persons in the same period were old people above the age of 60 years.

Table 1*: Socio-Economic Characteristics

(Per cent)

Socio-Economic Characteristics	Naigaum	Deonar
Caste and religion		
Scheduled or low castes and Buddhists	27 2	37.9
Upper castes and non-Hindus	64.3	52.0
Mother tongue		
Marathi	76 2	62.9
Hindi	5.5	18.1
Urdu	9.2	11.8
Migration		
Total migrants	65.8	78.2
Lengths of Stay in Bombay		
20 years and above	48.2	42.9
Area of Migration		
Urban	7.2	15.7
Rural	92.8	84.3
Educational status		
Illiterates	26.2	40.9
Higher secondary and above	22.8	11.3
Per capita monthly income		
Less than Rs 100	3.3	4.0
Rs 100 - Rs 199	24.3	33.8
Rs 200 - Rs 299	33.6	32.4
Rs 300 and above	38.8	29.8
Housing		
Type of housing		
Pucca house (concrete building)	70.8	8.4
Kutcha house (hut)	19.6	78.6
Water supply		
Private tap	25.1	0.7
Common tap for the building	44.9	9.4
Public stand-post	28.8	66.4
Type of drainage		
Open drainage	29.7	92.5
Closed drainage	70.2	2 0

Notes: * Figures are given in precentages only for the major categories of the variable. Hence, the percentages will not add up to one hundred.
Approximately Rs 30 = US $ 1

Table 2*: Morbidity and Disability

(Per cent)

Morbidity and Disability	Naigaum	Deonar
Minor illness		
Households suffered	96.6	99.1
Fever	75.2	65.9
Stomach ailments	5.7	14.6
Acute illness (Hospitalisation)		
Households suffered	25.8	29.3
Surgery	13.9	13.0
Stomach ailments	21.2	30 8
Fever	7.2	13.9
Chronic illness		
Households suffered	6 5	5 8
Respiratory diseases	43.5	71.2
Heart diseases	32.3	15.5
Diabetes	21.0	8.9
Disability		
Households suffered	1.7	2.7
Disabled leg	35.8	15.5
Polio related disability	21.4	63.1
Paralysis	21.4	0.0

Note: * Figures are given in precentages only for the major categories of the variable. Hence, the percentages will not add up to one hundred.

Causes of death too varied between the two communities. In Naigaum the major killers were heart diseases and old age problems meaning degenerative chronic diseases affecting old people. On the other hand, preventable diseases or conditions like stomach ailments, fevers and accidents were the major causes of deaths in Deonar.

The data analysed so far showed clearly that there were qualitative differences in the morbidity and mortality patterns of the two communities. Deonar mainly depicts a typical poor community, wherein communicable diseases are still the main causes of deaths, disabilities, and hospitalisation. But Naigaum presents a very different picture. There seems to be an epidemiological transition taking place in Naigaum, though the present study did not look at this aspect over a period of time to observe the change. The mortality and morbidity patterns show a trend towards diseases like heart diseases and diabetes.

Health Services Utilisation

Table 4 gives details of various sources of health services utilised for different kinds of illnesses and health needs. The data were compared between Naigaum and Deonar. The following findings can be inferred from the table. (a) Though Naigaum and Deonar differed in their socio-economic characteristics, morbidity and mortality patterns and the availability of health services, they used almost similar health services for various categories of illnesses and health needs. (b) For minor illnesses, a large majority of the households both in Naigaum and Deonar used private sector health services. (c) For chronic illnesses, the largest proportion of the patients from Naigaum and Deonar went to the private sector for treatment. (d) For acute illnesses requiring hospitalisation, a majority of the cases in Naigaum and Deonar used public sector hospitals because indoor facilities of the private sector are very expensive. (e) A good majority of pregnant women from Naigaum and Deonar went to public sector health care facilities for maternal care which included ante-natal care, child delivery and post-natal care. (f) Immunisation and family planning programmes being government programmes, a majority from both Naigaum and Deonar used public sector health services.

Extensive use of the private sector indicates that the urban poor too spend substantial amounts on medical care. Table 5 gives details of the medical expenditure incurred by both the communities during the last one year. The Naigaum community had spent more than the Deonar community during the previous year. Though more free/nominally priced municipal health services were available to the Naigaum community, they had spent more money for health services. On the whole, both the communities had some capacity to pay for health services.

Table 4 shows that the municipal health services were used by the households of Naigaum and Deonar for different categories of illnesses. The overall utilisation of the municipal health services based on the recall of respondents for the previous one year revealed that a majority of both the communities had gone to municipal facilities for one purpose or other. However, a larger proportion of the Deonar community (68.8 per cent) had used municipal health services, as compared to the Naigaum community (56.3 per cent), though the municipal health services were more abundant in Naigaum.

Table 3*: Mortality

(Per cent)

Mortality Pattern	Nigaon	Deonar
Age at Death		
Children (0-5 years)	6.9	50.0
Elderly (Above 60 years)	55.2	15.4
Major Causes of Death		
Stomach ailments	7.6	14.0
Heart diseases	19.7	10.5
Accidents	4.5	14 0
Fevers	3.0	14.0
Respiratory diseases	12.1	10.5
Old age	25.9	8.8

Note: * Figures are given in precentages only for the major categories of the variable. Hence, the percentages will not add up to one hundred

Table 5: Medical Expenditure During One Year

(Per cent)

Medical Expenditure	Naigaum	Deonar
Less than Rs 100	8.2	16.0
Rs 100 - Rs 299	22.6	26.9
Rs 300 - Rs 499	30.9	24.9
Rs 500 - Rs 999	21.8	18.2
Rs 1,000 and above	16.5	14 0
Total	100.0	100.0

Note: Approximately Rs 30 = US $ 1.

Table 4: Health Demands and Sources of Health Services Utilised

(Per cent)

Health Needs	Type of Facility				
	Public	Private	Employ Benefit	Other	Total
Minor illness					
Naigaum	23.1	66.0	11.0	0.0	100
					791
Deonar	27.3	68.4	4.4	0.0	100
					686
Acute illness					
Naigaum	77.8	14.7	7.6	0.0	100
					211
Deonar	76.8	15.3	7.9	0.0	100
					203
Chronic illness					
Naigaum	36.0	48.0	14.0	2.0	100
					50
Deonar	42.1	44.7	7.9	5.2	100
					38
Ante-natal care					
Naigaum	76.4	21.2	1.1	1.3	100
					373
Deonar	76.9	18.2	3 7	1.2	100
					351
Delivery					
Naigaum	69.2	18.0	1.4	11.4@	100
					422
Deonar	61.0	9.3	2.1	27.6@	100
					431
Post-natal care					
Naigaum	74.9	18.9	0.0	6.2	100
					403
Deonar	72.1	18.6	3.6	5.7	100
					366
Immunisation					
Naigaum	52.9	9.1	0.9	37.1#	100
					552
Deonar	61.2	10.8	2.6	25.4#	100
					492
Family planning (sterilisation)					
Naigaum	83.6	13.2	3.2	0.0	100
					348
Deonar	82.2	10.2	7.6	0.0	100
					236

Notes: @ Home delivery; # Voluntary sector.

Tables 6, 7 and 8 discuss the nature and reasons for using or not using the municipal health services. The findings are summarised as: (a) The higher levels of municipal health services were better utilised than the lower level services, because higher levels were perceived to provide better quality of health services in terms of good humanpower and better supply of drugs and materials (Table 6). (b) Free/nominal cost of health services in the municipal facilities was the most important reason for both the communities to use the municipal health services (Table 7). (c) Barriers to the use of municipal health services included inconvenient timings of the out-patient department for the Naigaum community and the long distance to reach the municipal facilities in the case of the Deonar community (Table 8).

The above analyses of utilisation of health services revealed that differential utilisation pattern of health services did not take place, even though there are differential socio-economic conditions, differential morbidity and mortality patterns and differential availability of health services in the two communities Secondly, even if health services are made available at a nominal cost at the nearest locality of the patients, effective utilisation of this health services would not take place.

This study observed that the utilisation pattern of health services is a product of not only the cost of service and proximity but it also involves the convenience of timing of delivery of the health service and the perception of the quality of health services delivered Proximity and convenience of timing of services are indirect economic factors. Longer distance in the case of the Deonar community prevented people using health services because it involved travel cost. Similarly inconvenient timing of health services delivery often leads to the loss of a day's wage. Hence people prefer to utilise those services, which are delivered at times convenient to them. About the quality of health services, generally people perceived early cure, good supply of drugs, personalised services, good doctor and good nursing care as indicators of good quality health care

Therefore, these four factors, i e. cost of services proximity, convenience of timing and perceived quality of health services influenced the utilisation pattern of health services. Ideally speaking, health services perceived as good quality delivered freely in a nearby place at convenient times would be well utilised by the communities in Naigaum and Deonar. But in reality, different factors influenced the use of health services for different categories of health problems. Hence, the poor too adopted different strategies and used different sources of health services for different categories of health problems. Understanding this complex utilisation pattern of health services is important for the policy-makers.

Some of the findings need to be analysed and elaborated for the purpose of making policy recommendations. The following policy issues are raised from the survey findings: (a) Misuse and overuse of higher level of municipal health services. (b) Poor quality and underutilisation of health services at lower levels (dispensary) of municipal health services. (c) Accessibility issue in terms of long distance, long waiting time and inconvenient timings. (d) Role of private sector health services in slums.

Though the municipal corporation has a wide network of health services at all levels, there is crowding at the higher levels, especially at the teaching hospital level. The municipal corporation has not so far thought about a good referral system to avoid minor illness cases thus, crowding teaching hospitals. Further, most of the dispensaries are manned by young generalists, without adequate drugs and diagnostic services. Therefore, people do not perceive dispensaries as delivering good quality health services.

It was found that there were different kinds of accessibility issues in the two communities. Long distance was a major problem of accessibility in Deonar. This issue is more linked to the distribution of health care facilities. Since Mumbai expanded to adjacent areas rapidly, the newly added areas like Deonar lacked proper health care facilities. Health care facilities are mainly concentrated at the centre of the city. Therefore, the location of health care facilities is another policy issue that needs to be addressed.

All the municipal health care out-patient facilities except maternity homes operate in the morning. Since people have to go for work in the morning, the timing is not convenient. Hence operating clinics in the evening will be most convenient for the urban poor. However, such a move can encounter opposition from the providers, especially doctors, many of whom practice outside illegally in the evening. Therefore, any change in out-patient timings should take into account the problems or resistance such a change will bring.

The waiting time is another deterrent to utilise municipal health services. In Mumbai, the out-patient departments are overcrowded in teaching hospitals. But many of these cases can be treated at the lower levels. Yesudian's study (1979) in a major teaching hospital which is close to the Naigaum community revealed that a majority of those who attended the medical out-patient department suffered from stomach ailments, mainly diarrhoea or fevers. It was observed by the researcher and confirmed by some of the municipal doctors that lower level facilities especially dispensaries in some parts of the city treated only a few patients every day. Therefore, any policy recommendation should address the issue of congestion at the tertiary level and under-utilisation at the dispensary level.

The study clearly brought out that the poor preferred the private sector health services as against the public sector municipal health services. They perceived that the quality of the private sector as being better than that provided in the public sector. The validity of this perception is questioned by many people mainly socially

TABLE 6 EXTENT OF UTILISATION OF DIFFERENT LEVELS OF MUNICIPAL HEALTH SERVICES

(Per cent)

Level of Municipal Health Services	Naigaum	Deonar
Teaching hospital	31 9	7 6
Other hospital	32 5	55 2
Maternity home	24.1	22 1
Dispensary	6 7	12 4
Health post	4.8	2 7
Total	100 0	100.0
N	461	476

TABLE 7. REASONS FOR UTILISING MUNICIPAL HEALTH SERVICES

(Per cent)

Reasons	Naigaum	Deonar
Nominal charges	75 2	79 0
Good treatment	12 4	5 2
Qualified doctors and other staff	4 3	3 3
Nearer to home	7.3	9.8
Other	0 8	2 7
Total	100 0	100.0
N	507	479

TABLE 8 REASONS FOR NOT UTILISING MUNICIPAL HEALTH SERVICES FOR MINOR ILLNESSES

(Per cent)

Reasons	Naigaum	Deonar
Far away	12 5	50 6
Inconvenient timings	67 5	31 4
Ineffective medicines	8 3	6 9
Doctors not good	2 9	3 0
Rude behaviour of staff	2 7	2 4
Medical benefits available elsewhere	1 3	1.9
Other	0 1	3 0
No response	4 7	0 8
Total	100 0	100.0
N	548	472

conscious doctors, lawyers and social workers in the city. Most of the private clinics in slums are run by unqualified medical practitioners. The clinics are also situated in an unhygienic environment with very limited facilities.

Since the municipal corporation has a wide network of health services at different levels, a good referral system needs to be developed to make the services meaningful and appropriate for the urban poor. Such a referral system should have disincentives such as paying higher charges for unnecessarily using higher levels of health services. At the same time, lower levels such as dispensary services need to be reviewed and strengthened. It is time for the municipal corporation to review the extent of utilisation of its dispensaries by the urban poor and to close down those dispensaries, which are under utilised by the poor. This will reduce the wastage of the municipal resources. Resources so saved must be invested on the remaining dispensaries to develop and strengthen their facilities. This quality improvement and quantity reduction process would help the poor to a great extent.

There is scope for charging the patients for the services, at least for the drugs, if the poor perceive the services as good and start using municipal dispensaries. The collected revenue should be used for the same dispensary to replenish drugs, so that there is no short supply of drugs at any time. This would increase the utilisation of the municipal dispensary to a great extent and at the same time, assure good quality health care for the urban poor for minor ailments.

Urban health policy should address the issue of timings of the municipal health care facilities. Out-patient services need to be organised during the evenings for the convenience of the community. The municipal corporation is already running the out-patient services of the maternity homes in the afternoon for the convenience of women: this has been well utilised. Apart from the convenience of timing, efforts should be made to cut the long waiting time in the out-patient department. All the sections related to the out-patient services like the pharmacy, dressing-room, X-ray facility and laboratory should be as close as possible to one another, so that patients can utilise them within the shortest time.

The study showed that the poor were not confident of the quality of services delivered by the municipal corporation. This negative perception is mainly due to the way health services are delivered in the municipal facilities. In a large health set-up like the municipal corporation, there is a need for professionally trained managers to run health services. Health care planning should be decentralised at the municipal ward level and hospitals need development of good management systems to run different services efficiently and effectively. Urban health policy should address the development of management teams in municipal hospitals by training personnel in hospital management and making them responsible for developing good management systems. The management team should also be sensitive to the perceptions of the poor and break the barriers of accessibility, so that the well managed and good quality of health services delivered by the municipal corporation are also accessible to the urban poor. There is a need to develop a proper licensing and monitoring system for private practitioners, so that the welfare of the urban poor is safeguarded. The current Mumbai Nursing Home Registration Act (1949) is outdated and was never implemented. There is a need to replace this outdated act with a new legislation which should take care of the prevailing private medical practice, especially in slums. The act should prescribe proper norms for the location and space for running clinics and nursing homes. It should also specify the equipment and other facilities that a nursing home or a clinic should have. If these aspects are taken care of, the poor will be assured of some quality of health care even from a semi-qualified medical personnel. The new act should also restrict semi-qualified personnel from treating only illnesses of minor nature. At the same time, they should be required to undergo continuing medical education programmes to update their knowledge to treat minor illnesses. They should also be required to keep proper patient records for inspection. These provisions should be preconditions for renewing the licence of clinics. Such a provision is necessary keeping in mind that it is not possible to abolish the medical practice of these semi-qualified doctors in slums.

Urban health policy for the poor cannot ignore either the public sector or the private sector. Both the sectors have definite roles in providing health services for the poor. In the case of the public sector, formulating a good referral system, relocating service facilities, strengthening dispensaries and streamlining the management of service delivery are the major policy concerns. On the other hand, the poor are already expensively utilising the private sector, whose quality of health services is questionable. Therefore, the need arises to regulate the private sector. Strengthening of public sector will also alert the private sector to provide better quality of health services for the poor. Therefore, an urban health policy for the poor will aim at stronger public sector health services and a regulated private sector health services.

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- NORTH-EAST: CRISIS OF IDENTITY, SECURITY AND UNDERDEVELOPMENT
- DECENTRALISATION: INITIATIVES IN HEALTH SECTOR
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- SEARCH FOR FLEXIBILITY IN INDIAN MANUFACTURING: NEW EVIDENCE ON OUTSOURCING
- HAVANA VERSUS DAVOS: THE UNBRIDGEABLE CHASM

State Bank of India

Central Office, Mumbai - 400 021.

UNAUDITED FINANCIAL RESULTS (PROVISIONAL) FOR THE QUARTER ENDED 31ST DECEMBER 1998

Rs in crores

Particulars	Quarter ended 31st Dec.98	Quarter ended 31st Dec.97	Nine Months ended 31st Dec.98	Ninemonths ended 31st Dec.97	Year ended 31st Mar.98
I. INCOME					
Interest earned	4859.09	3863.16	13648.88	11337.69	15878.89
Other Income	693.37	664.93	2154.46	1767.17	2820.17
Total	5552.46	4528.09	15803.34	13104.86	18699.06
II. EXPENDITURE					
Interest expended	3496.60	2707.47	9484.10	7681.73	10473.21
Operating Expenses	1417.67	1302.89	4007.03	3542.56	4720.89
Provisions and Contingencies	352.89	309.83	1169.21	967.97	1643.76
Total	5267.16	4320.19	14660.34	12192.26	16837.86
III. PROFIT					
Net Profit	285.30	207.90	1143.00	912.60	1861.20
IV. Issued, Subscribed and paid-up capital	526.30	526.30	526.30	526.30	526.30

The working results for the quarter ended the 31st December 1998 have been arrived after considering provision for NPAs, Bonus, Gratuity, Income Tax, Interest Tax, Wealth Tax, Investment Depreciation, etc., on an estimated basis.

The above results have been taken on record by the Central Board of the Bank on the 28th January 1999.

	V. JANAKIRAMAN	G.G.VAIDYA	M.P.RADHAKRISHNAN
MUMBAI	Managing Director &	Managing Director &	Chairman
Date : 28th Jan.99	Group Executive (CB)	Group Executive (NB)	

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Vol XXXIV No 6 February 6, 1999

Marxism and International Law

The period since the second world war has witnessed an exponential growth of international law. No longer confined to questions of war and peace or diplomacy, international law has come to, on the one hand, govern the use of oceans and outer space and, on the other, regulate core aspects of national economic, social and cultural life. Recent years in particular have seen the adoption of a network of laws seeking to establish the legal and institutional framework favourable to the accumulation of capital in the era of globalisation. But despite the critical role it has come to play in building and sustaining the contemporary international system, international law represents a wasteland insofar as Marxism is concerned. 337

Outsourcing in Indian Manufacturing

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Conversion, Reconversion and the State

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Multiple Oppression

The Convention against Untouchability and Dalit Women's Oppression in Delhi in last December brought to the fore the need to look at different forms of exploitation and then to link them up to devise a workable emancipatory strategy. What also became obvious is the disjuncture between the more *avant garde* practices of the social sciences and the grim political reality that awaits transformation. 323

Manipulated Media

Media manipulation yields distorted pictures of disasters and conflicts. In fact, the worst tragedies are often the least reported. 319

Havana versus Davos

Two major world economic conferences on the ambiguous theme of globalisation took place at about the same time: the first, in Havana, by the Association of Economists of Latin America and the Caribbean and the second by the world's biggest capitalists and their political hangers-on in the Swiss Alpine resort of Davos. That however was where the similarity ended. 325

Remembering *The EW*

REMEMBERING these 50 years of *The EW* and *EPW* brings back a host of memories of events and episodes, trials and tribulations, hopes and fears through which the journal has been baked into its present shape and stature. Threats of demise have been almost regular and the journal used to live by the day, shall I say, by the week with different types of uncertainties looming large all the way, till the Trust was formed and some semblance of management was brought into play rather late in the day. The memories are naturally personal. My memories are both sweet and sour, sort of a mix of moods and manoeuvres. Incidentally, I happen to have been a regular reader of the journal right from the first issue upon which I chanced at the bookstall of M/S Mantu Ram at Dharamtala tram terminus. Since then I have remained an addict and a witness to the up and down, zigzag rigmarole that had been *The EW* and now *EPW*.

I endorse every word of what Ashok Mitra has narrated in his piece 'Fifty Years Ago' (January 9). I used to know intimately Sushil Ghose who struggled very hard to make his weekly stories authentic and would discuss very seriously some burning topic of the day at a book shop at the Grand Hotel Arcade. Shyam Babu harboured such gossip with a fervour putting in a comment or two about some new books brought in by him. *The EW* thus had a span of warmth not restricted to economists or socialists. A K Das Gupta and Dhurjati Prasad Mukerji were institutions, teachers with a mission. Ashok Mitra was himself a worthy successor to the idealists who took to the teaching profession with a religious zeal, of course sans fanaticism. I remember the debates in the pages of *The EW* and *EPW*, no discussant ever giving way to an opponent without solid argument. The wrapping up of the debate on farm size and productivity or for that matter modes of production are cases in point.

Even now, under the stewardship of Krishna Raj, *EPW* is studiedly off-beat but never sidetracking a serious point to reckon with. Many new features have since been added but the old flavour continues to create a taste of serious, rigorous analysis co-existing with the lighter, journalistic presentations. Often people would compare *EPW* with *The Economist*, London. Readers of both the journals will have appreciated that *The Economist* has become faceless and its accounts have underlined falling storage value, unlike what happens with *EPW* whose articles would call for what may be termed as rumination. When somebody sharply reacted to the obituary notice written by Andre Beteille on S C Dube, responses were immediate from K N Raj and M N Srinivas. Andre once mentioned to me that Dube was far ahead in the field and the data thrown by him were both authentic and serious. The unseemly reactions were unwarranted. But *EPW* did provide a forum to all!

The sensitivity of the readers of different hues has kept the aura of *EPW* alive. When economics was less mathematicised, controversies and wordy logic often reached high levels of sophistication. While *The Economist* revelled in giving more and more of more and more in snippets, *EPW* was been serving more and more of less and less. Yet some of the most remarkable pieces of analyses in different fields of economics have appeared in *EPW* which could as well have appeared in any foreign journal of repute.

George Rosen's letter in the same issue is much like him and his articles in *EPW*. His *Investment in Size, Capacity and Expansion* was a treat and naturally widely read, albeit the difficulties in accepting his contentions here and there. He scored high on 'readability scores' and his isoquants were keenly read and assessed with respect to industries not covered by him. There are several other names that come to mind who provided the aroma that is *EPW* despite its rather poor get up, paper quality and absence of cover gloss. Readers look for content and I am sure that they get this to their heart's content, whether you bark up the wrong tree or indulge in intellectual rowdyism.

P CHATTOPADHYAY

Calcutta

Savarkar Memorial

SUKLA SEN et al (December 26, 1998) are mixing up issues in refusing to co-operate with the efforts to glorify Savarkar. They should understand that the mayor of Marseilles has given consent to the erection of a memorial in memory of Savarkar at a place close to the Old Port Area to commemorate the heroic effort at that time.

Savarkar escaped from British custody by jumping through a toilet window of the steamship 'Moria' on July 8, 1910 when he was being brought to India from Britain to face treason charges for waging war against the crown. All Indians should remember that the memorial is being erected in Marseilles to commemorate the heroic effort of escape made by Savarkar and certainly not for his ideology of Hindutva, which came much later. This is also accepted by Sukla Sen et al.

Sukla Sen et al in their letter of November 24, 1998 to the mayor of Marseilles say, "the nationalist ideology of Savarkar during this period is reflected in his book, *The First Indian War of Independence, 1857*, where he interpreted the 1857-1858 rebellion against British Rule in India from an Indian nationalist perspective. And as a result of his militant anti-imperialist activities had to suffer deportation to and detention in the remote and dreaded Andaman Islands...".

If at all, critics of Savarkar can oppose the erection of a memorial in India that may be associated with Hindutva, but certainly not the one being erected at Marseilles to commemorate the brave act of an Indian fighting the imperialists.

WISHVAS RANE

Pune

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Towards a Consensus, Slowly

ALTHOUGH the eighth round of talks between the US deputy secretary of state and India's external affairs minister Jaswant Singh has not brought the hope for reversal of US sanctions, that there is a smoothening of the way is obvious. For as much as India and Pakistan for that matter, want the lifting of sanctions, it is as important to the US in the long-run that the opportunity to control critical technological developments gathering pace in these countries is not allowed to slip away. Moreover, restoring normal relations with India is closely connected to the Clinton administration's eagerness to move ahead with the CTBT and have it ratified by the US Senate. In any case, the US cannot escape acknowledging India as a new member of the nuclear club, however reluctantly. Just as the imposing of sanctions was the expected response to India and Pakistan putting on display their nuclear capability, it is now necessary for the US to lift the sanctions and especially its objections to the transactions of multilateral agencies. But timing is everything – for the leverage afforded by the imposing of sanctions in extracting some gains from the two countries may dissipate soon enough.

The most visible point of maximum gain for the US is September, when the CTBT entry into force provision meeting is held, before which the Clinton administration hopes to get the Senate to ratify the CTBT. Persuading India and Pakistan to sign the CTBT would strengthen the US government's case in the Senate. At the end of the latest meeting between Singh and Talbott in January, the official statement was about "tangible visible movement" towards the lifting of sanctions in anticipation of India taking some specific steps on CTBT. The Vajpayee government is, however, caught in a bind of its own making after the bravado in the aftermath of Pokhran. It is imperative that a political consensus is obtained in parliament. The irony is that although no party has held out any specific objection to India becoming a signatory to the CTBT, none is willing to support the Vajpayee government's decision to do so. The fact that Talbott's visit to Sonia Gandhi was no courtesy call – he was accompanied by the full seven-member delegation – is indicative of the US' keenness to ensure a consensus on the issue so that there are no hitches and glitches in the future. Equally, it is aware of the difficulties at the political level for the Indian government to agree to sign the CTBT with any degree of certitude.

This means that there is much to be gained on both sides if the US were to appear to soften its stand on the sanctions before any visible movement by the Indian government on the CTBT. And there are several indications that this is what is under way now. The US has not put up any objection to India's application for a loan from the International Finance Corporation, the private lending arm of the World Bank for a coal mining project in south India. This is being seen as a first step. The test case will be the one billion dollar World Bank loan for the power sector in Andhra Pradesh. The US is reported to be talking to the other G-8 countries to formulate an approach to facilitate the granting of that loan. In any case, having allowed the IMF to go ahead with its programme in Pakistan it would be difficult for the US to sustain its objections to the Indian requests. The World Bank is due to take up India's case for a $ 125 million loan soon and it is likely that the US stand will not be as rigid as it was in May last year.

The US is clearly not unappreciative of the nature of the moves being made by India and Pakistan to resume discussions at the highest levels. This is something that the US delegation had 'suggested'. It is also considered significant that the delegation spent only 24 hours in Islamabad while holding talks with several leaders over four days in New Delhi, indicating that the deal is being worked out with the two countries quite independently, although Islamabad is being kept informed of the results of the engagement here. It would seem likely then that the stage is being set for the two countries to come to a co-ordinated decision on the signing of the CTBT, 'independently' of US involvement.

There are other indications as well of the thawing of the US position. The Indian chief of army staff General V P Malik has been invited to attend the ceremony of the change of guards of the US Pacific Command in Hawaii later this month signalling, observers believe, a reversal of the US approach after last May when all senior level military contacts with India and Pakistan were suspended. The US also appears to be making efforts to engineer a rapprochement in India-Japan relations as well, with a senior member of the Talbott team visiting Japan specifically to inform it of the outcome of the meetings on the subcontinent. Also, the US and India are planning discussions on the resumption of bilateral defence co-operation covering training programmes as well as transfer of technology. While there are no definite moves towards a review of the 'black-listing' select Indian companies by the US, this is an issue of relatively low sensitivity and is expected to be resolved in due time.

There are, as is to be expected of course, apprehensions on what kind of promises the Indian government has made, apart from on the CTBT issue, in return for the lifting of the US sanctions. While these will inform political debate in parliament and outside, circumstances being what they are, the Vajpayee

government has few offerings to make to the US. For one, the government in Delhi is skating on thin ice all the time keeping its different constituents in good humour and can hardly afford to take many significant unilateral initiatives; for another, the signing of the CTBT would necessarily have to be a consensus decision, which would make it difficult for any formation in office, even a single-party government, to make private deals of the kind made in the heydays of Congress power. In sum, if India does sign the CTBT, as it seems likely to do together with Pakistan, it would probably be politically among the most unassailable decisions in international relations made by this country.

BIHAR

Fratricidal Politics

A correspondent writes:

THE massacre of 23 dalits in Shakarbigaha village in Jehanabad in Bihar by the Ranvir Sena on republic day should be an eye-opener to the various Marxist-Leninist groups who are operating there. The impunity with which the Sena had been carrying out one carnage after another during the last four years since its birth – the biggest being in Bathani Tola in 1996 and Lakshmanpur-Bathe in 1997 (not to speak of a dozen other lesser killings in the strongholds of the Marxist-Leninists in Bihar) – has been made possible by the fact that the naxalite groups are more involved in fighting among themselves than in launching a united offensive against the Sena goons.

There are mainly three Marxist-Leninist groups working in Bihar – the CPI(ML) Liberation group, the Maoist Communist Centre (MCC) and the CPI(ML) People's War group. The latter came into being following the merger of the old People's War group and the Party Unity group in August last year. Earlier attempts to bring in the MCC in the united fold failed. As a result, during the last four years, the Bihar countryside has seen intermittent clashes between the MCC and the People's War group. According to the newly formed CPI(ML) People's War group, the MCC had killed 84 of their supporters and leaders. In retaliation, the former had killed 45 MCC supporters. The MCC has not spared the Liberation group either. In September 1997, MCC guerillas ambushed and killed a dozen Liberation group activists in a village in Bihar. In January this year two of their activists in Ranchi were reportedly killed by the MCC. All these naxalite groups allege that the MCC is being aided by Laloo Yadav's ruling Rashtriya Janata Dal.

Whether the allegation is true or not, the fact remains that the internecine fights among these naxalite groups have come as a gift from heaven to the state administration in Bihar. All through the 1980s, the police were totally helpless in the face of the rising popularity of the naxalite groups among the rural poor in the Bhojpur-Gaya-Aurangabad belt who under their leadership were mobilising and resisting the vested feudal interests. The private armies of the landlords, like Bhumi Sena, Lorik Sena, Sunlight Sena, etc, had to beat a hasty retreat in the face of the armed offensive of the naxalite groups. With the beginning of the 1990s, however, when Laloo Yadav came to power in Bihar, the Marxist-Leninist groups began to face problems from a number of directions. Firstly, Laloo Yadav succeeded in driving a caste-based wedge among the followers of the Liberation group, with a number of their Yadav supporters and activists shifting allegiance to Laloo. The large middle-peasant component of the naxalite base was thus fragmented. Secondly, the Liberation group, which was the largest naxalite organisation in the state, decided in the early 1990s to slow down on armed action and lay more emphasis on parliamentary struggles and mass movements in order to expand its base. As it came out into the open, the only underground armed groups left in the scene were the MCC, the Party Unity and the People's War groups (the latter two now merged into one). They became increasingly hostile to the Liberation group, accusing it of revisionism and attacking its cadres, thus unleashing a bloody fratricidal conflict. While the virtual withdrawal of the Liberation group guerilla squads did indeed contribute to some extent to the blunting of the edge of the naxalite armed offensive, it cannot be denied that it still remains one of the largest Marxist-Leninist groups with numerous mass organisations and a vast following among the rural poor. By belittling this and treating the Liberation group as an enemy, the MCC and the CPI(ML) People's War groups have ignored the ground reality and created fissures in the Marxist-Leninist movement.

This suicidal politics of division has now come home to roost. Taking advantage of it, the landed interests of Bihar have rallied their forces with renewed vigour. In 1994, they formed the Ranvir Sena, which, with the direct backing of the BJP and tacit support from Laloo Yadav and the state administration, launched armed attacks on the poor peasant followers of the naxalite groups. Under public pressure, the government was forced to ban the Sena after it massacred dalits in Sarathua in Bhojpur in July 1995. Although the ban continues, it has not deterred the Sena from carrying out massacres. According to the Liberation group, the Ranvir Sena gangsters have so far killed 270 people in 20 major massacres and 91 clashes. The naxalite groups have hardly been able to resist this offensive of the Sena, and till today, according to their own claims, they have succeeded in meting out retribution in a few cases only, in spite of pledges to avenge the massacres.

It is thus evident that during the 1990s while the naxalites have wasted their fire-power on internecine clashes and have become increasingly fragmented, their opponents among the rural feudal forces have become more consolidated and have succeeded in weakening the naxalite base through terror tactics. One of the major reasons for the clashes among the naxalite groups is not so much ideological difference as competition for space in the narrow base in which they remain confined in Bihar. In spite of three decades of activities, none of the groups has been able to expand their base beyond the Bhojpur-Gaya-Aurangabad belt and a few pockets in Palamau. The groups operate in these areas and contest with each other in carving out their separate zones of influence. Each tries to jealously protect its own zone and fiercely resists any infiltration by the other group. Instead of undertaking the more challenging task of moving out to the hitherto untapped areas of the Bihar countryside, they try to vie with each other in expanding their zones of influence within the same old narrow base.

It is not only in Bihar that such clashes are taking place among Marxist-Leninist groups over spheres of influence. In Andhra Pradesh, the People's War group is locked in a bloody conflict with the CPI(ML) led by Chandra Pulla Reddy's followers, who have a substantial base in certain parts of Telengana. Here again, these two groups remain confined to a few zones, where they compete with each other to gain influence. If the Marxist-Leninist groups are seriously interested in a revolutionary transformation of Indian society, one wonders why instead of proliferating in one single area these groups do not send

their trained activists to propagate their messages and build up movements in other parts of the vast Indian countryside, the major chunk of which still remains outside any communist influence worth the name. India provides enough space to enable them to try out their respective tactics and prove their validity.

COMMUNAL VIOLENCE

Kid-Glove Treatment

WHILE the Sangh parivar's vindictive campaign against the Christian minorities and the BJP-led centre's acquiescence in it have indeed led to the escalation of attacks on that community in different parts of the country, the non-BJP-run state governments cannot wash their hands off and escape the responsibility for allowing such happenings in their states.

Orissa, where the latest incident of the horrendous killing of an Australian missionary and his two children took place, is run by the Congress. In the Left Front-run state of Kerala, three Christian students were recently attacked by RSS and VHP supporters. Bihar, ruled by Laloo Yadav's Rashtriya Janata Dal, had seen frequent attacks on Christian missionaries and churches all through the 1990s. In 1994, two Christian priests were murdered in Gumla district in south Bihar. Clearly, the saffron brigade's anti-Christian atrocities are no longer confined to the BJP strongholds like Gujarat and UP (where in Allahabad, four Christian missionaries were recently attacked with iron rods by Bajrang Dal activists). Self-proclaimed secular political parties which are running state governments should seriously ponder over this, and ask themselves why they are failing to protect the religious minorities in their states.

The unrestricted spread of the outfits of the Sangh parivar (VHP, Bajrang Dal, Hindu Jagran Manch, etc) in hitherto communally unaffected parts of the country may have less to do with any spontaneous mass support for these aggressive proponents of hindutva, and more with sheer administrative failure to curb their criminal and violent activities, and political failure to ideologically defeat their campaign. The violence of these RSS activists could have been nipped in the bud long ago in places like Orissa, Kerala or Bihar if the local administration there had taken firm steps at the right time to arrest the miscreants who had been spewing venom against religious minorities and stop them from organising 'shakhas' and similar other nefarious activities. In Orissa, for instance, both the local police and the intelligence department now admit that the main culprit, allegedly a Bajrang Dal activist, was a history-sheeter who was booked for dacoities and murder, and had been campaigning for quite some time against Christian missionaries and their tribal followers, and organising non-Christian villagers to strike against them. There was nothing secret about his activities. Yet, why did not the police arrest him? In Kerala again, the VHP had been for quite some time continuously spreading a vituperative campaign against the Evangelical Church of India on the issue of conversion. Yet the administration apparently took no notice of the explosive implications of such a campaign. The indifference of the police encouraged the VHP goons to physically assault the member of the Evangelical Church. The clamping of prohibitory orders and arrest of several RSS activists were a rather belated response, after the damage had already been done.

The failure – or unwillingness – of the state administration to curb such crimes is nowhere more evident than in Bihar, where not only Christians from the tribal communities, but also dalits from the downtrodden castes are victims of unabated violence of the upper caste religious fanatics and landlords. The latest massacre of scheduled caste villagers in Jehanabad in Bihar by the landlord-led Ranvir Sena, adds yet another chapter to the long history of such carnages in that state. It can no longer be attributed to the oft-repeated innocuous excuse of 'failure of intelligence', since the Ranvir Sena landlords had been openly threatening the scheduled caste villagers under the nose of the police. It is clear that while claiming to be the messiah of the poor, Laloo Yadav at the same time protects the upper caste landlords and the state administration acquiesces in their crimes.

This kid-glove treatment of Hindu upper caste criminal politicians, even by political parties which claim to be secular, indicates a certain tendency of subservience to the religion of the majority in general, and the caste-based hierarchical system of that religion in particular. It is this attitude which had blunted the political campaign against the hindutva that is propounded by the Sangh parivar. The extent to which this infirmity has affected even the Left was evident recently from the deliberations of the 16th Congress of the CPI(M) held in Calcutta in October last year. Reports from different state units revealed that many party members in Bihar followed "various obscurantist practices" and that in places like Tamil Nadu, Orissa and UP, caste discriminatory practices against scheduled castes, like not allowing them to draw water from common wells, drink from common glasses in tea-shops, take out wedding or burial processions through main roads, continue even in "areas where the party and the mass organisation influence exists, but the party does not take the initiative to campaign against it".

It is this lack of ideological initiative on the part of the Left and secular parties that has led to a situation where the masses are either apathetic to, or connive at, the vitriolic campaign and physical violence launched by Sangh parivar against religious minorities like Muslims and Christians, and dalits who convert to these religions. The abetting of the administration in such crimes even in states ruled by the Left and secular parties further indicates how these parties in power all these years had allowed the forces of hindutva to infiltrate into the crucial segments of the bureaucracy and police.

CURRENT STATISTICS

EPW Research Foundation

The WPI has fallen from 359.4 on October 31 to 353.9 on January 23, the steepest decline being in food articles from 470.8 to 439.7 or by 6.6 per cent. As a result, the annual rate of rise in the WPI has come down from 8.5 per cent to 4.7 per cent and in food articles from 23.4 per cent to 7.8 per cent. Reflecting the recession in the real sectors, there is no significant pick-up in non-food bank credit (even taking into account banks' commercial investments), though M_3 growth has accelerated.

Macroeconomic Indicators

Index Numbers of Wholesale Prices (1981-82 = 100)	Weights	Jan 23, 1999	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
All Commodities	100.00	353.9	-0.3	4.7	5.7	5.0	5.6	5.3	6.9	5.0	10.4
Primary Articles	32.30	383.0	-0.5	8.3	5.0	10.1	7.3	5.5	7.0	5.4	12.7
Food Articles	17.39	439.7	-1.6	7.8	5.1	11.8	7.9	4.0	9.6	9.8	11.9
Non-Food Articles	10.08	391.9	1.3	11.9	4.8	10.0	6.6	8.5	3.5	-1.9	15.5
Fuel, Power, Light and Lubricants	10.66	374.1	-2.1	-0.9	13.0	-2.6	9.4	11.4	16.9	3.7	2.4
Manufactured Products	57.04	333.6	0.3	3.5	4.7	3.5	3.9	4.0	4.9	5.0	10.7
Food Products	10.14	343.4	0.2	4.0	8.5	5.4	6.9	5.5	14.1	-0.7	8.1
Food Index (computed)	27.53	404.2	-1.0	5.9	6.9	9.7	8.2	4.5	11.1	6.3	10.6
All Commodities (Average Basis) (April 4, 1998 - January 23, 1999)	100.00	352.0	-	6.9	5.2	7.3	4.8	4.8	6.4	7.8	10.9

Cost of Living Indices	Latest Month	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
Industrial Workers (1982=100)	438.0[11]	1.2	19.7	4.9	15.3	4.3	8.3	10.0	8.9	9.7
Urban Non-Man Emp (1984-85=100)	345.0[12]	-1.4	12.4	6.2	10.6	5.5	7.2	10.2	8.2	9.9
Agri Lab (1986-87=100) (Link factor 5.89)	305.0[11]	-1.6	15.1	0.8	12.1	1.1	3.8	10.5	7.2	11.1

Money and Banking (Rs crore)	Jan 15, 1999	Variation: Over Month	Over Year	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96
Money Supply (M_3)	934666	9413(1.0)	154311(19.8)	109277(13.2)	78507(11.2)	123451(17.6)	97841(16.2)	72581(13.7)
Currency with Public	167155	4872(3.0)	21862(15.0)	21973(15.1)	13207(10.0)	13095(9.9)	13829(11.7)	17577(17.5)
Deposit with Banks*	764166	5225(0.7)	132997(21.1)	86564(12.8)	63602(11.2)	110036(19.4)	84162(17.5)	55042(12.9)
Net Bank Credit to Govt	382636	1983(0.5)	63523(19.9)	52017(15.7)	30493(10.6)	42000(14.6)	30840(12.0)	35360(15.9)
Bank Credit to Comml Sector	465788	15685(3.5)	61638(15.3)	33598(7.8)	27843(7.4)	55883(14.9)	31659(9.2)	51925(17.7)
Net Foreign Exchange Assets	139778	2728(2.0)	21389(18.1)	13209(10.4)	12892(12.2)	21072(20.0)	23356(28.4)	3109(3.9)
Reserve Money (Jan 22)	248110	2615(1.1)	35658(16.8)	21876(9.7)	12466(6.2)	26248(13.1)	5527(2.8)	25176(14.9)
Net RBI Credit to Centre	152937	4278(2.9)	24783(19.3)	19320(14.5)	7451(6.2)	12915(10.7)	1934(1.6)	19855(20.1)
RBI Credit to Bks/Comm Sector	21488	-1913(-8.2)	5006(30.4)	6206(40.6)	3229(24.4)	2029(15.3)	-15557(-54.0)	8747(43.6)
Scheduled Commercial Banks (Jan 15)								
Deposits	685062	5168(0.8)	119883(21.2)	79652(13.2)	59580(11.8)	99811(19.7)	71780(16.5)	46960(12.1)
Advances	349240	10287(3.0)	47164(15.6)	25161(7.8)	23675(8.5)	45677(16.4)	24386(9.6)	42455(20.1)
Non-Food Advances	332640	9674(3.0)	42577(14.7)	21046(6.8)	19259(7.1)	40790(15.1)	26580(10.9)	44938(22.5)
Investments (for SLR purposes)	249843	-1650(-0.7)	34936(16.3)	31138(14.2)	24394(12.8)	28192(14.8)	25731(15.6)	15529(10.4)
Commercial Investments	45584	1468(3.3)	10617(30.4)	12500(37.8)	15556(80.1)	13673(70.4)	4412(29.4)	925(6.6)

@ Includes Rs 17,945 crore on account of proceeds from RIBs, excluding which the year-on-year growth of money supply would be 17.5 per cent.

Index Numbers of Industrial Production (1993-94=100)	Weights	November 1998	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Full Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
General Index	100.00	141.5	137.8(3.5)	133.2(6.7)	137.6(6.6)	129.0(5.5)	122.3(12.8)	108.4(8.4)
Mining and Quarrying	10.47	119.0	115.9(-1.2)	117.3(5.2)	122.4(5.9)	115.6(-2.0)	117.9(9.6)	107.6(7.6)
Manufacturing	79.36	145.8	141.1(3.7)	136.1(6.9)	140.5(6.7)	131.8(6.7)	123.5(13.8)	108.5(8.5)
Electricity	10.17	131.2	134.7(6.1)	126.9(6.4)	130.0(6.7)	121.9(3.9)	117.3(8.1)	108.5(8.5)

Capital Market	Feb 5, 1999	Month Ago	Year Ago	1998-99 So Far: Trough	1998-99 So Far: Peak	1997-98: Trough	1997-98: Peak	End of Fiscal Year: 1997-98	1996-97	1995-96
BSE Sensitive Index (1978-79=100)	3215(-4.2)	3149	3357(0.1)	2783	4281	3210	4548	3893(15.8)	3361(-0.2)	3367(3.3)
BSE-100 (1983-84=100)	1412(-2.5)	1402	1448(-1.5)	1242	1890	1401	1980	1697(15.9)	1464(-5.5)	1549(-3.5)
BSE-200 (1989-90=100)	[illegible]	325	322(-1.5)	289	429	314	440	377(14.9)	328(-5.0)	345(-6.3)
S and P CNX-50 (Nov 3, 1995=1000)	[illegible]	907	976(1.3)	812	1213	941	1140	1117(15.4)	968	na
Skindia GDR Index (Jan 2, 1995=1000)	602(-27.9)	636	835	515	1015	765	1320	940(1.1)	930(-4.4)	973(-0.6)

Foreign Trade	November 1998	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
Exports: Rs crore	10812	89897(10.1)	81623(7.7)	126286(6.3)	118817(11.7)	106353(28.6)	82674(18.5)
US $ mn	2551	21433(-5.2)	22598(5.2)	33980(2.6)	33470(5.3)	31797(20.8)	26330(18.4)
Imports: Rs crore	14734	117948(23.8)	95254(10.4)	151554(9.1)	138920(13.2)	122678(36.3)	89971(23.1)
US $ mn	3477	28121(6.6)	26371(7.9)	40779(5.8)	39132(6.7)	36678(28.0)	28654(22.9)
Non-POL US $ mn	2917	24094(14.8)	20988(13.8)	32562(11.9)	29096(-0.2)	29152(28.3)	22727(29.5)
Balance of Trade: Rs crore	-3922	-24222	-13631	-25268	-20102	-16325	-7297
US $ mn	-925	-5784	-3774	-6799	-5663	-4881	-2324

Foreign Exchange Reserves (excluding gold)	Jan 29, 1999	Jan 30, 1998	Mar 31, 1998	Variation Over: Month Ago	Year Ago	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95	1993-94
Rs crore	116818	95490	102612	2159	21328	14206	15115	22237	21649	-7302	18402	27430
US $ mn	27476	24522	25933	479	2954	1543	2153	3564	5243	-3690	5640	8724

Notes: (i) Superscript numeral denotes month to which figure relates, e g, superscript 11 stands for November; (ii) Figures in brackets are percentage variations over the specified or over the comparable period of the previous year. na: not available. neg: negligible. * unchanged.

Money Market Rates of Interest

(per cent per annum)

Weekended Fridays / Instruments	January 1999: 29	22(RF)	15	8(RF)	1	December 1998: 25(RF)	18	11(RF)	4	January 1998: 30(RF)$	23	16(RF)	9
Call money rate(Range: weekly)	na	8.50-35.00	8.90-30.00	8.50-9.50	5.50-10.00	8.60-9.50	5.60-9.00	7.90-8.20	5.75-8.10	1.00-120.00	15.00-100.00	2.00-10.00	8.00-9.75
Prime Lending Rates: Banks													
(Major Public Sector)	12.75-13.00	12.75-13.00	12.75-13.00	12.75-13.00	12.75-13.00	12.75-13.00	12.75-13.00	12.75-13.00	12.75-13.00	14.00	14.00	12.50-13.00	12.50-13.00
IDBI	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	13.50	13.50	13.50	13.50
ICICI	13.50-14.00	13.50-14.00	13.50-14.00	13.50-14.00	13.50-14.00	13.50-14.00	13.50-14.00	13.50-14.00	13.50-14.00	14.0-14.5	12.50-14.00	12.50-14.00	12.50-14.00
IFCI	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14.50	13.5-14.5	13.5-14.5	14.00	14.00
Treasury Bills:-													
14-Day (RBI Auction): Primary	9.13	9.39	9.39	9.39	9.13	9.13	8.61	8.35	8.35	7.30	*	7.04	7.04
91-Day (RBI Auction): Primary	9.54	9.46	9.50	9.50	9.54	9.58	9.46	9.46	9.37	7.33	7.33	7.21	7.21
Secondary: DFHI (mid-point of bid and offer)	9.10	9.23	9.38	9.45	..	9.45	9.46	..	..	..	..	..	..
All SGL trading (Weighted YTM)	8.33	7.94	9.66	9.22	9.10	8.79	8.75	8.39	8.97	16.69	17.27	8.74	8.24
364-Day (RBI Auction)													
Primary	10.41	*	10.50	*	10.47	*	10.50	*	10.51	*	*	*	*
Secondary: DFHI(mid-point)	..	..	10.46	10.40	10.45	10.34	10.42	10.35	10.40	..	..	9.07	8.84
All SGL trading (Weighted YTM)	9.99	7.16	10.40	10.38	10.08	10.34	10.37	10.29	10.15	22.26	17.21	8.83	8.16
State Govt loans(Coupon rates)	-	-	-	-	-	12.50 (10-year)	-	-	-	-	-	-	-
All SGL trading (Weighted YTM)	12.39	12.41	12.40	12.43	12.49	12.38	12.39	12.29	12.36	13.54	12.56	11.45	11.37
GOI Securities: Primary Auctions	12.29(11-yrs) 12.32(12-yrs)	12.4(15-yrs) 12.6(20-yrs)	*	*	*	*	*	11.47 (3-year)	*	*	*	*	*
Secondary: All SGL trading (Weighted YTM)	11.38	11.18	11.43	11.28	11.20	11.24	11.27	11.34	11.16	17.15	13.64	11.00	10.67
PSU Bonds yield:-													
Tax free: NSE (traded, weighted)	9.67	9.67	10.61	11.44	10.12	9.83	9.67	10.03	9.91	13.25	9.55	9.46	9.46
NSE (Range: weekly)	9.48-10.30	9.69-10.01	9.98-14.84	11.43-15.11	9.50-10.43	9.51-9.94	9.67	8.93-10.35	8.96-10.08	11.70-13.40	9.55	9.37-9.67	9.13-9.68
Taxable: NSE (traded, weighted)	14.88	14.35	10.85	14.50	14.75	15.45	14.75	14.23	14.31	13.76	15.46	14.02	10.57
NSE (Range: weekly)	14.31-15.81	11.57-14.65	10.80-15.50	11.48-15.11	13.50-14.84	15.45	14.72-14.79	12.14-15.51	14.01-14.48	13.56-14.49	13.64-16.29	12.11-15.10	9.09-14.24
Commercial Bills: DFHI (Rediscount rate)	.	..	..	..	..	..	..	..	..	..	..	10.50-11.00	10.25-10.50
CP:Primary market (90 days)	10.70-10.90	10.70-10.90	10.60-10.80	10.70-10.80	10.60-11.00	10.60-10.80	10.30-10.80	10.30-10.80	10.30-10.80	19.0-24.0	18.0-21.0	10.0-12.0	10.0-12.0
Secondary: DFHI (Discount rate)	.	..	..	..	.	..	..	..	..	..	.	11.0-11.5	10.75-11.00
Secondary: market/NSE	9.68-10.55	10.25-10.90	9.82-10.95	10.10-10.75	10.20-11.00	9.78-10.82	9.74-10.78	9.73-10.87	9.78-10.62	21.0-24.0	16.0-22.0	.	..
CDs: Primary market	10.30-10.60	10.30-10.60	10.30-10.50	10.25-10.50	10.30-10.60	10. 0-10.50	10.20-10.60	10.20 10.60	10.20-10.60	18.0-20.0	18.0-20.0	10.0-12.0	10.0-12.0
Secondary: DFHI (Discount rate)	.	..	..	..	..	..	..	..	..	..	..	10.5-11.0	10.25-10.50
Inter-corporate deposits (30 days)#	10.25-10.75	10.25-10.75	10.25-10.75	10.25-10.75	10.50-11.00	10.50-11.00	10.50-11.00	10.50-11.00	10.50-11.00	11.50-14.50	11.50-14.50	11.00-14.00	10.00-13.00
(90 days)	11.00-11.50	11.00-11.50	11.00-11.50	11.00-11.50	11.25-11.75	11.25-11.75	11.25-11.75	11.25-11.75	11.25-11.75	14.50-16.50	14.50-16.50	14.00-16.00	13.00-15.00
Memorandum Items:													
(i) Forward premia on the US dollar in the domestic inter-bank market (annualised in per cent per annum) (Weekly average)@													
Spot/Cash	4.83	2.69	6.57	2.61	4.36	6.11	3.64	2.32	3.01	46.65	61.02	21.20	9.21
One-month	4.75	5.63	5.03	4.46	5.05	5.08	5.45	5.05	5.67	38.41	36.57	19.27	10.36
Three-month	6.82	6.41	5.81	5.63	6.05	6.22	6.53	6.27	6.58	23.34	24.65	15.33	10.47
Six-month	6.70	6.70	6.39	6.94	7.27	7.35	7.62	7.57	7.72	17.17	18.60	12.47	9.20
Twelve-month	7.35	7.34	7.22	7.89	8.24	8.30	8.47	8.46	8.53	14.41	14.86	11.64	9.22
(ii) RBI Reference Rate (Rs/US$)	42.50	42.51	42.47	42.52	42.47	42.54	42.54	42.59	42.54	38.92	38.62	40.36	39.71

ICD figures till September 1998 are for a tenor of 60-90 days for Blue Chip and Non-Blue Chip Companies respectively. RF means reporting Friday for fortnightly reporting of conditions of banking business and the fortnight serves as the reserve maintenance period for scheduled commercial banks. @ Based on daily quotations supplied by Mecklai Financial and Commercial Services Ltd, Bombay Weekly averages of inter-bank premia annualised per cent per annum. - no floatation . no trading * no auction na: not available, YTM = yield to maturity

Conversion, Reconversion and the State

Recent Events in the Dangs

Ghanshyam Shah

The events in the Dangs in the last week of December last year were a continuation of the ongoing persecution of Christians in Gujarat. The dominant section of the majority community, the regional media, many non-government organisations and the state have either joined hands against the minorities and the oppressed or have preferred to remain silent.

I

CHRISTIANS constitute less than 1 per cent of Gujarat's population. They are scattered thoughout the state. The majority of them belong to the traditionally lower socio-economic stratum of society. Not only Christian missionaries and their institutions but poor Christians, particularly dalits and adivasis, are under attack and have been systematically harassed by Hindu fundamentalists under BJP rule. The state machinery is more or less in collusion with or indifferent to the miscreants. The Gujarat government has not only ignored the recommendations of the Minorities Commission but also questioned its need to visit the state. The prime minister has given a clean chit to the state government and said that the chief minister was not at fault and had taken action to prevent atrocities against Christians in the state. VHP leaders have openly said that the Gujarat government is carrying out their agenda. The Sangh parivar, including BJP ministers and other office-bearers, allege that 'people' in Gujarat are getting converted to Christianity, either forcibly or with all kinds of allurements. There is a conspiracy to create a Nagaland or Mizoram in Gujarat with a majority Christian population. The events in the Dangs, in the last week of December, are in continuation of the ongoing persecution of Christians. The dominant section of the majority community, the regional media, many non-government organisations and the state have either joined hands or preferred to maintain silence, against the minorities and the oppressed, as if the state and civil society have blended together.

The Dangs literally means 'forests' and is a land of tall trees, thick scab jungle and dense vegetation over some 1,764 sq km. It is the smallest district of Gujarat with a population of 1,44,091. There are 309 villages and two small towns – Ahwa, the district headquarters, and Waghai. More than 70 per cent of the villages have populations of less than 500. Ninety-four per cent of the inhabitants are adivasis. The non-adivasis have settled here during the last 50 years for business or white-collar employment. Kunbis or kukanas (40 per cent), bhils (33 per cent) and varlis (14 per cent) are the major tribal groups. Kukanas are believed to have migrated from Kokan. They are better off than the bhils. Though kukanas accept bhils as the rulers, the rivalry between the two continues in one or another form. The Dangis in general and the bhils in particular are known for their militancy. They had vigorously rebelled several times against the British administration. The bhil chiefs remained unconquered by any outside power till the mid-19th century. The British administration did not interfere in the social and economic life of the natives. The bhil chiefs were recognised as the rajas of different tracts and the Britishers took monopoly rights over timber. The Dangs was maintained as an excluded area.

For the Dangis, forest and land are commonly-shared resources. There was no personal ownership of land till independence. Shifting cultivation, hunting and collection of forest products were their sources of livelihood. They used to change their place of residence frequently for one or another reason. The British acquired lease of forests by hook or by crook from the bhil rajas in 1842. The government exploited the forest for revenue and commercial purposes. The rights of the adivasis on the use of forests had been slowly reduced. Shifting cultivation was restricted. In the process, the owners of the forests were considered as encroachers. The same policy has been continued after independence. Shifting cultivation has been banned and the rights to the use of forest products have been reduced considerably.

The Dangs is classified into three areas: reserved forest, protected forest and unclassified forest. The area under each category has not remained constant. In fact, the area under unclassified forest, which the tribals could use for cultivation, has declined over a period of time. For instance, under the Surat Circle the unclassified forests had declined from 2,218 sq km to a mere 621 sq km, whereas the area under reserved forests had increased from 2,977 sq km to 4,318 sq km between 1961 and 1971. "In the late 19th century about 66 per cent of the Dangs was classed as available for cultivation. By 1956-57 the figure had fallen to about 54 per cent. During the 1960s, the Gujarat government carried out a survey of the Dangs with the aim of giving land occupancy deeds to the cultivators. As a result of this survey, 79,913 hectares was classed as farmland, which represented 45 per cent of the total area" [Hardiman 1994]. By 1989-90 farmland had been further reduced to 61,400 hectares, that is 36 per cent of the area. Nearly 53 per cent of the area of the Dangs has been declared by the government as forest and the forest department has complete control over it. Nineteen per cent of the land is not available for cultivation [GOG 1996]. More than half is under 'reserved' forest which the local population is not only prohibited to cultivate land but from where they are also not allowed to use any forest product. In several cases (according to one report, as many as 110 villages) dwellings have been forcibly shifted from the area. According to a survey in 1968-69, from 79,409 hectares cultivated by the adivasis, the forest department acquired 21,154 hectares by using all kinds of means for forest plantation. In 1970, the government ordered transfer of 56,214 hectares for agriculture. But in reality only 15,617 hectares were allocated to 17,638 adivasi cultivators. According to official records, only 30 per cent of adivasi households have been registered as legal cultivators. Under the protected forests the department carries out plantation work, sometimes on the agricultural land of adivasis by removing their standing crops. This is being done even by violating a Gujarat High Court order of 1993. When the adivasi cultivators quote the order, the forest officers tell them to throw away the court order.[1] Adivasis are frequently harassed and beaten up by the forest department under one pretext or another. The terror of the forest department scares the inhabitants. Forest labour has been their

major source of livelihood. Till the mid-eighties, the forest department used to open jungle coupes for felling, logging and carting of wood. The location of the coupes was spread over the whole of the area so that practically every village had easy access to the place of work [Parikh 1961: 338]. Gandhians have organised forest labour co-operative societies (FLCS) since 1949 to eliminate timber merchants and contractors. There were 45 FLCS run by Gandhians and political leaders in the mid-eighties, providing seasonal employment to more than 5,000 persons. FLCS were hotbeds of faction-fights and corruption. A handful of local political leaders have amassed wealth and developed a vested interest in perpetuating the terror of the forest department. However, the FLCS provided slightly higher wages than the contractors [Joshi 1992]. The number of jungle coupes has declined sharply since 1986 with the new forest policy. Now only two or three coupes are opened every year for cutting dry trees. Except for plantation work, practically all forest labour has been discontinued. Consequently, the Dangis are forced to migrate outside the district for labour. It is estimated that more than 40 per cent of the Dangis migrate after monsoon for six months to work in sugar cane farms in neighbouring Surat and Valsad districts. There the conditions of work are wretched and wages are low.

The Dangis were almost illiterate on the eve of independence. There was only one school started by the British Political Agent for bhil rajas and nayaks. It had only 11 students in 1947-48. Christian missionaries began to work here in the early 19th century to spread the message of the gospel. Some efforts were made by them in the 1940s to start teaching Dangi boys. Gandhian constructive workers settled in Ahwa, the headquarters of the Dangs in 1948. They established Swaraj Ashram as the centre of their activities revolving around khadi and education. First of all they established Ashram Shala, a residential school. Later, the government of Bombay introduced the system of Ashram Shalas in 1953, following the Gandhian model which encouraged voluntary organisations with recurring and non-recurring 100 per cent grant. For Gandhians, the objectives of the Ashram Shalas were not only to teach the three R's but also to teach a 'better way of living'. According to them, tribals were 'backward' in their customs, not cleaning their teeth, not taking bath everyday, wearing only a 'langoti', i e, loin-cloth, and believing in ghosts and many superstitions. Gandhians emphasise vegetarianism and, teetotalism and are anti-superstitious, and support observance of certain festivals observed by upper caste Hindus, fasting on certain days and cleanliness not only in a hygienic sense but also with an element of purity. Amritlal Thakkar, known as Thakkar Bapa, was the first to start an Asharm Shala for adivasis in the Panchmahals district. He noted in his diary in 1922, "Bhil children were admitted after bath and dressed in new clothes, putting 'chanlo' (red mark) on forehead and eating 'gor dhana' (jaggery and coriander seeds)" [Shah 1955: 148]. Such customs are usually practised by upper caste Hindus. In the early fifties there was competition between Gujarati and Maharashtrian Congress Sarvodaya workers to start Ashram Shalas as a device to create patronage networks. Later, after the formation of Gujarat with the Dangs, competition for opening Asharm Shalas intensified among the various factions of the Congress. Over a period of time these Ashram Shalas have stagnated and are in a shambles [Joshi 1980].

With state support, the Swaraj Ashram and Marathi-speaking Gandhian workers started 179 primary schools between 1949 and 1955. The primary schools run by the Gandhians and Christian missionaries with their own resources were taken over by the state. The number of primary schools had increased to 378 by the early nineties. There was only one high school in the district in 1961. In 1975 the district panchayat of the Dangs controlled by the anti-Swaraj Ashram faction invited two Jesuits to start high schools in the Dangs. The secondary schools have increased from eight in 1980 to 21 in 1990. Of them three are run by Christians; four are government schools and the rest are Ashram Shalas or schools run by various Gandhian and non-Gandhian organisations. Deep Darshan and Nava Jyot schools are run by Christian organisations. More than 90 per cent of the students (out of a total of 1,100) studying in these schools are non-Christian adivasis. These schools attract more students as their teaching is considered better than that of the others. Their performance in the Secondary School Examination (SSC) is strikingly better than that of all the other schools. On an average the Dangs had 36 per cent result in the SSC between 1988 and 1997, whereas the Deep Darshan school had 93 per cent. And that is the reason these schools are a sore point for those who have been running schools in the district for many years.

With the rise in number of secondary schools, the number of students has also increased three times during the last decade. The district now has a college also. In 1969 there were four Dangi graduates, their number is now more than 1,200. Among the tribal talukas of Gujarat, the Dangs has the fastest growth in literacy, though the literacy rate is lower than the state average which is 61 per cent. The rate is 48 per cent as against 36 per cent among all STs in Gujarat

At the same time, the Dangs has the highest rate of educated unemployment among all the tribal talukas and districts. A number of graduate and postgraduate Dangis are forced to earn their livelihood through manual labour in and outside the district. The district does not have many white-collar jobs. And as the Dangis are late-comers in the field of education educated persons of other adivasi groups continue to dominate. In 1970 a graduate Dangi told me, " A real test of life is to find a job. Our illiterate and ignorant relatives think that after having studied this much (a college degree) one gets employment immediately. But that is a wonder of the world! Interview calls are only a formality. We waste money for going and coming, but there is nobody to come to our rescue..." [Shah 1972]. The situation is now worse. The number of such frustrated youth has increased. Educated Dangis formed the Dangs Yuvak Seva Samiti in 1968 to get justice for the local youth. Their demand was that white-collar jobs in the district should be reserved for local Dangis. They were demanding an autonomous status for the Dangs. As unemployment among educated Dangis has increased sharply during the last two decades and as the forest resource-base has been shrinking, frustration among the youth is mounting and is getting ventilated in different forms.

Several secular NGOs working in neighbouring areas have extended their activities in the Dangs since the mid-seventies. A few local NGOs have also come up. They have taken several income-generating programmes such as milk co-operative societies, poultry, sewing, bamboo work, furniture work, etc. But none of them has so far provided viable supplementary income to a sizeable number of people. The only advantage of these NGOs is that they provide employment to a handful of educated Dangis.

Socio-economic transformation in the Dangs, thanks to overall capitalist development and particularly the forest and tribal development policies, has adversely affected the local population. As the adivasis lost their land to the forest department and experienced harassment, sporadic confrontation between the Dangis and the forest or revenue department increased. There were several struggles in the late seventies demanding the right of cultivation of the land they used to traditionally

cultivate. In 1977 a memorandum was submitted demanding: (a) resurvey of the district and allocation of land to the adivasis, (b) ownership of trees to the cultivator adivasis where the trees are located in land possessed by them, (c) closure of nurseries and plantations set up by the forest department on land cultivated by the trbials, and (d) more facilities to the Dangis for education, health and agriculture. Several demonstrations, meetings and processions were organised to press these demands. All methods – repression, intimidation and co-option – were used to diffuse the struggles.

Once again in the mid-eighties the Dangis formed the Adivasi Bhumihin Kisan Hakka Sanrakshan Samiti (BKSS) for asserting their rights over land and forests. Like in the seventies demonstrations, rallies, dharnas, meetings, etc, were organised. This was a more militant struggle than the earlier one and adivasis of several villages collectively had taken away 'forest' land and started cultivation, resulted in direct confrontation with the government. The government used force and removed the crops. Several adivasis were arrested. An adivasis of Mahal village said, "when we demand land they do not give and when we take land they shoot us. How do we survive?" Besides repeating the demands of 1977, the BKSS demanded that (1) all those adivasis from 110 old villages who had been forced by the forest department to evacuate, their villages should be allowed to settle in their old villages, (2) since adivasis had not been given land as per the 1970 survey, the survey of land and cultivators be carried out once again, and all those who were earlier cultivating land should be given possession of their land and all landless households be given at least five acres of land for self cultivation, (3) adivasis should be given a reasonable price for the forest products which they collected, (4) all forest labourers should be given equal and minimum wages and free labour should be stopped, and (5) harassment by forest and other government officials should be stopped immediately.

The government did not heed the demands. Instead, the leaders of the Samiti and other adivasis were beaten up severely and arrested. A few activists were killed in police firing. The main leaders were arrested under TADA and all measures were used to crush the movement. Though the organised struggle under the leadership of the BKSS has been diffused, unrest continues. Neither the Gandhians nor the Christian missionaries working in the area extended support to these struggles; nor did they protest against the brutality of the forest and police department against the adivasis. For the Hindu philanthropic organisations and fundamentalists, the economic problems of the adivasis were a non-issue. All of them looked upon the struggles of the Dangis as disruption of the peaceful life of the district.

II

According to the 1991 Census 95 per cent of the Dangis enumerated their religion as Hindus. Sample surveys carried out by social scientists do not give a significantly different picture from the census. A few who are fully committed to particular sects such as Sanatani, Mokshmarg, Swadhyay, Kabir, etc, reported their sect as their religion. The leaders of these sects and the followers called their sects as part of Hindu religion. However, Christian and some 'secular' scholars question the census operation. It is argued that adivasis are Animist and not Hindus [Raj 1994]. This is a ticklish issue, more so at this juncture when the Sangh parivar is bent upon making India a 'Hindu Rashtra'. Notwithstanding the risks, one cannot brush aside the issue.

Formulation of the questions about religion and the method of enumeration of religion have been rightly contested. The question in the census and in social science survey questionnaires generally is: "What is your 'dharma'?" The word 'dharma' as understood by the investigator is alien to the Dangi, particularly in households where formal education has not reached. Consequently, all adivasis except those who are consciously baptised into Christianity or Islam or one of the new sects of Hinduism or the tribals who consciously name their religion as 'tribal religion' [Singh 1994] are categorised as 'Hindu'. It is a categorisation more by the enumerator rather than by the adivasi respondent.

If Hinduism means the institutional four-fold-brahminical social order, the model prescribed by *Manusmruti*, accepting Vedantic philosophy, etc, the adivasis are certainly not Hindus. Though adivasis have a notion of hierarchy based on status or ranking, the Dangis have not imbibed the values related to purity and pollution as understood and practised by caste Hindus. They do not consider themselves as belonging to one of the castes among the Hindus. Nor do they perceive their present position as adivasi as the result of their deeds of their past birth. Their social organisation, norms of interpersonal relationships and many of their customs related to marriage, child birth, etc, are different in many ways from those of the caste Hindus of the adjoining areas. More important, caste Hindus do not consider adivasis as part of them. The adivasi is always looked down upon and placed outside the caste-based social order. Any effort to bring the advasis into the institutional and dominant brahminical ideological framework of Hinduism by conversion to Hinduism is only for political purposes. This process, following different trajectories, in fact has a long history. It is now considered as natural and inevitable and is being systematically and aggressively carried out with state support, but not talked about.

However, if Hinduism means plurality of religious beliefs related to god and a supernatural power, worship in different ways to multiple gods and goddesses, nature and spirits, and diverse rituals and beliefs about life and death, the overwhelming majority of the adivasis of Gujarat in general and the Dangs in particular may be called Hindus. Kukanas consider themselves 'higher' than the bhils. They do not eat beef, whereas the bhils

do. Among the Kukanas those who eat beef required purification of some kind [Parikh 1961, Engineer 1999]. Such Hinduisation or popular Hinduism, if one may call it that, has been a two-way process. Adivasis have adopted many beliefs and gods of the caste Hindus living in their vicinity, the latter also have embraced several deities of the adivasis, and in many cases both followed similar rituals and beliefs independent of each other. In some cases the caste Hindus give brahminical names and legends to the deities worshipped by the adivasis. Such a process was clearly evident in the widespread socio-religious movement launched by the adivasis of central and eastern India in the twenties to change their established ways of life. The Dangs was also affected by the movement. It was popularly called the Devi movement. The commands of the Devi, Goddess Sarabai, were to stop drinking liquor and eating meat and, take bath twice a day. This has some closeness with the tenets of the Bhakti movement. Symbols, rituals and ceremonies practised in worshipping the Devi were similar to traditional patterns of worship which had many resemblances to those of several caste Hindus of the region. The Devi asked the adivasis not to become Christians. David Hardiman observes, "The cultural side to the Devi programme laid most stress on ritual purity and non-violent behaviour. Almost nothing was said about religious beliefs and no attempt was made to demand that the adivasis worship Hindu gods such as Krishna, Rama or Hanuman. In a few cases, most notably in the Dangs, superstitious beliefs were condemned, but this did not represent an important element of the programme in most cases. The adivasis were in fact permitted by the Devi to go on worshipping their old gods and goddesses so long as they did not perform blood (violent) sacrifice. Rituals and practice had to change, but not the religion as such" (1987: 164).

Adivasis of the Dangs worship Silaiya and Simaliya Devs (deities symbolising the village boundary and hill), Mavlima (goddess mother), Kanasari Devi (grain goddess), the snake and the tiger, ghosts of ancestors, etc [Parikh 1961]. However, educated adivasis have begun to observe festivals and rituals of caste Hindus thanks to their socialisation in public institutions run by Gandhians and the government [Shah 1984].

A section of the adivasis believe that they were the original natives of the land. In the thirties a religious movement called Sati Pati Panth was launched which opposed Hinduism as well as Christianity. The leaders of the Panth consider that the present rulers are outsiders and had encroached upon the adivasis' land and forests. They do not participate in elections and do not pay revenue to the state. They follow their rituals and ceremonies which are closely related to nature. In the fifties the movement had a vast following in Surat and Bharuch districts. It launched a land-grab movement to oust non-tribal landowners. It has quite a few followers in the Dangs. There are some other organisations such as the Adivasi Vikas Parishad and Adivasi Ekta Parishad. They appeal to the adivasis to awake and get free from the clutches of the Hindus. Like the Sati Pati Panth, they also advocate that the adivasis are the original inhabitants of the country. The Adivasi Ekta Parishad emphasises their culture, related to nature, and their communal way of life. In 1997 the Parishad organised a conference near Dharampur, close to the Dangs, in which more than 10,000 adivasis from different parts of Gujarat, Maharashtra and Madhya Pradesh participated.

Nearly 20 Christian organisations of different denominations now work in the Dangs. Most of them are Protestant. They mainly cultivate relationships with the local people, listen to their woes, sympathise in their difficulties, teach morals ('do' and 'do not do') and persuade them to join for prayer. Compassion is their approach. Miracles and medicines are used to attract the adivasis to join their fold. Some of them, as a part of their welfare programmes, also provide help in the form of loans for buying seeds or levelling land. Recently some churches have appointed newly-converted youth to work as 'Rakhewal' pastors with a salary. Catholics who believe in liberation theology are engaged in social welfare programmes. Proselytisation is not a priority for them.

In 1981, 1,500 persons, both adivasi and non-adivasi, were enumerated as Christians in the district. Their number had increased to 7,500 by the 1991 Census. The majority of them are Protestant. The Church of North India has the largest following. Most of them are first generation converts. Less than 5 per cent are of second or third generation converts. There are various reasons, as given by them, for accepting Christianity. The most common reasons are curing of diseases, relief from tension related to day-to-day problems, faith in prayer which helped them in their personal crises, particularly recovery from illness. "I was sick and tried 'Bhuva-Bhagat' [traditional healers] but could not get relief. My neighbour who is a Christian suggested to me to meet the 'Padari' [priest] and ask him to offer a prayer for my recovery. I was knowing the Padari as he used to visit us. I told him about my illness. He asked me to join with him for the prayer and I began to feel better. From that day I used to attend the prayer regularly and later became 'Cristi' [Christian]." He was baptised 20 years before. Another person who has proselytised recently told me, "I wanted a male child. I tried 'Bhuva' and also observed 'vrata' [religious vows] but it did not help. I talked to the priest and thanks to his prayer now I am a father of a male child. Hence I developed faith in prayer and became, Cristi". The humane and personal touch of missionaries who expressed concern, in the adivasis' dialect, about the day-to-day problems of adivasis and were willing to help them influenced some to become Christians. After baptism they slowly give up certain rituals related to worship. They are advised to give up worship of the deities which they used to worship from their birth. Their participation in traditional religio-cultural celebrations has declined. "You cannot worship two gods. You cannot be a Hindu as well as a Muslim, can you?" a Catholic Father asked me. Lancy Lobo observes, "Protestants share some prescriptions with Hindu sects such as abstention from alcohol, smoking tobacco, etc, but they directly attack the indigenous cultural practices, such as marriage songs and rituals....Unlike Hindu sects Christianity introduces new and hitherto unknown cultural practices to the tribals" (1992: 55-56). The missionary insists that if one becomes Christian one should not worship other gods. This does create friction at village and family levels. For instance, the Dangis traditionally celebrate their festivals like Holi, Akha Tij, Tera, etc, collectively. On Akha Tij a basket of germinated seeds of different corn – nagali, warli, etc – is worshipped with 'kumkum' (red powder) and is ceremonially thrown into water. Christians have stopped contributing for and participating in the festival. Such behaviour of a few in a small village of 60 or so households isolates them and creates ripples in the social fabric. But friction on such occasions has never been so sharp a to polarise the community in a tug-of-war. After all, it has never been a monolithic religious community. It may be noted that some Christian adivasis keep photos of Jesus as well as Hanuman, some say that they are 'Hindu-Christians'. But both Hindu and Christian bigotry would force them to be either strake or.

III

In the past the adivasis were known as 'kaliparaj', i e, black-skinned people. Caste Hindus looked down upon them as backward and 'jungali', i e, uncivilised

with bad customs and manners. Gandhiji called them 'raniparaj', i e, brave people living with wild animals. Gandhians began to work among adivasis as a part of their political-cum-social reform programme to uplift them. They "disapproved of the tribal ways of life" [Chaudhuri 1975] and made efforts to bring them into the 'mainstream'. The Sangh parivar prefers to address adivasis as 'vanvasis', i e, forest-dwellers. According to them the difference between caste Hindus and vanvasis is the place of settlement, the former live in the plains and the latter in forests. They consider that vanvasis are backward Hindus who need to be reformed. As a part of their programme to reach out the vanvasis various outfits of the parivar and several sects of Hinduism carry out a number of philanthropic activities among the adivasis, including distribution of food, clothing and medicines during famines and epidemics. These programmes have been systematised and more extensively carried out during the last two decades. Charitable institutions providing health services have been started at different locations in the tribal belt. Some of the Gandhian workers are collaborating with these 'social' activities.

Congress workers continue to have a hold over educational and social welfare activities in the adivasi areas. The BJP has so far not completely succeeded in building an institutional base for distribution of patronage. Though the BJP won a majority in the state assembly elections, the Congress has still an edge over it in the tribal belt. Not only does the Congress continue to win the assembly seat from the Dangs constituency, it also captured back a few BJP seats in the 1998 assembly elections. As a part of the election campaign, a leaflet was circulated informing adivasis that Christian adivasis were not entitled to get benefits as scheduled tribes. It proclaimed: "after the election [the new government of BJP] would stop giving such rights to Christians. Realise! Realise! Purify yourself through yagna and become a Hindu. Otherwise you will regret later."

As a part of building a base among the adivasis the Sangh parivar is actively involved in welfare and religious activities in the region. The Hindu Jagran Manch (HJM) established Vanvasi Ashram, a residential school, at Waghai in 1991. Thirty male students live in the ashram. It aims at all-around development of the vanvasis. Swami Avishanandji has settled here for the last two years. One more ashram has been started in 1996 at Mokhamar village, near Subir, where the Nav Jyot school, run by Jesuits, is located. Swami Avishanandji says, "The ashram here is one of the 7,000 projects of vanvasi 'kalyan' [welfare] in the country. When I came here and talked to people they said 'give us religion. Our brother who becomes Christian is deviating from us. There are many problems here, but first make us Hindu. We want our identity.' We regret that we have not come here earlier to show our tradition and culture. People here worship Hanuman. Village people get divided as some become Christians. Those who become Christians throw away our gods into the forest which leads to tension. Such tension has increased during the last five years. Thirty per cent of the Dangis got converted to Christianity with financial temptations and force. This process has been slowed down because of our work. Now the converted are coming back [into the Hindu fold]. We take them to Unai where they take bath in hot springs and get purified."

The HJM organised a Hindu 'sammelan' (conference) in June 1998 in the Dangs in which some Christian adivasis were collectively 'purified' and taken back into the Hindu fold. On the eve of the sammelan HJM distributed a leaflet which said: "The most burning problem of the Dangs is the establishments being run by Christian missionaries...Wherever Christian priests have gone in the world, they loot the people...They teach people to tell lies, to steal in the name of religion...Awaken Hindu and struggle against these thieves who lie, who rob you of your rights, and bring these people to their senses..."

Besides 'reconverting' from Christianity to Hinduism, HJM has launched a campaign to harass and pressurise those Christians who do not follow their advice. In 1998 at least 14 incidents were reported in the press or in police records of harassment and beating. In several villages such as Jamalpada, Divan Temrun, Kudka, Darpada, Borkhal, etc, individual Christians were beaten up. In Darpada, the cycle of a Christian was snatched away. Stones were thrown during the Sunday prayers. Some prayer places – kacha buildings of bamboo and tiles (only 4 per cent of the houses in the Dangs are pucka) – were damaged. In Dhagunia village which has eight to 10 Christian households out of a total of 122 households, Christians were beaten up in November 1998. Some Christians were taken to Unai temple to be bathed in the hot springs. Those who refused to go were prohibited by the village sarpanch (headman) to take water from the village well. In Umerpada village the police inspector harassed Christians on the basis of a false complaint made by VHP workers. In Kudka village evangelist Premchand was beaten by the police patel. In early December, Dakshin Gujarat Adivasi Cristi Kalyan Parishad (DGACKP) submitted a memorandum to the chief minister giving details of the instances filed with the police. The petitioners asked: "Despite the complaints about burning of six and damage to four prayer places why is the government silent? Why is the police department not taking any action? Why has no one been arrested?" It is alleged that Christian adivasis are not given birth and tribe certificates, necessary for employment, by government officers. In that sense, the government has informally implemented what the leaflet, mentioned above, announced before the last elections.

In a few villages the Christians were persuaded and also intimidated that if they

do not go to Unai for purification, they would face social boycott. Most of those who succumbed to various pressures belong to the first generation of Christians. "We have to live in peace and harmony with our own people", one of them said. Another person from Jamanmala who was on his way to Unai told us, "I became Cristi because the Father advised me to offer prayer and God would help me for a better life. But my condition has not improved. Now Swamiji says, 'you should not forget your culture and religion; get purified'. I am now becoming Hindu so that we can continue to observe our rituals and can also drink liquor on festivals and can also use coconut in worshipping our 'devs' deities]." "I became Cristi because I thought that it would save me from disease. But now I am going to Unai because this is our bap-dada's [parental] religion". One old person said "I have come here [to the ashram] because Swamiji has called us and others from the village have come"

Last year VHP, RSS, HJM and other organisations of the parivar organised several anti-Christian rallies on Christmas day in different locations of the adivasi belt in Gujarat. One of them was at Pipalwada in Vyara taluka, bordering the Dangs. The Bajrang Dal started its activities in the Dangs in 1996. By distributing freely pictures of Hanuman it popularised Hanuman as the god of the Dangis. It recruits youth. The Dal organised December 6, 1998 as Hindu Vijay Gaurav Din, i e, Hindu victory day, at Ahwa. However, the programme did not attract many youth and passed off as a non-event.

HJM decided to organise a mass rally on Christmas day, December 25, in Ahwa. The town has more than 100 Christian families, Dangis and non-Dangis. There is a Christian locality and a church. As a part of its propaganda HJM distributed leaflets declaring: "Christian priests are insulting Hindu saints through newspapers. This insult is insult of the whole Hindu society. It is a religious duty to bring sense to those Christians who dared to insult the Hindu saints. HJM is determinant to stop the conversion activities of Christian missionaries." Another leaflet was against Ishu (Christ) and the Bible proclaiming that Ishu was not a saint and a 'dut' messenger of peace). It declared that Ishu had come on earth to divide the family and the people. He was a champion of war. The Bible asked followers to destroy the god of those who lived on the hills and to finish those people who worship gods and goddess.

Christian organisations such as the DGACKP and the Church of north India wrote to the collector and district police commissioner in early December last that they had learnt about the proposed rally and were apprehending attacks on Christians and churches on the 25th as had been attempted the previous year at Pipalwada where there was an attempt to set fire to a church. The government was requested not to give permission for holding the rally on that day. The DGACKP asked for protection to all churches. The South Gujarat Human Rights Group also requested the collector not to give permission for the rally. The collector called a meeting of representatives of various organisations on the 23rd in which the Christian organisations reiterated their demand. The collector said that there would be enough police force on that day, but he did not commit himself whether he would allow the rally to be held. He finally gave permission to the HJM for the rally. Police protection was not provided to the prayer places.

The venue of the rally was very close to the church in Ahwa. The town was decorated with saffron flags on the 24th. Several truck-loads of people from within and outside the Dangs were brought for the rally. The procession started at 12 noon. The main slogans of the rally were: "Christians are 'chor' (thieves)", "Hindu jago Christians bhago" (Hindus awake, Christians run away), "gali gali me shor hai Padari sab chor hai" (everybody in the streets is shouting that Christian priests are thieves). "Jay Ram and Bajarangbali ki jay". Some of the placards were also painted with such slogans. Christian leaders complained to the deputy police commissioner and the collector that they should not allow the shouting of such provocative and insulting slogans. At around 4 o'clock the rally was converted into the meeting in which provocative speeches against missionaries and Christian conversions were made. It was alleged that the missionaries were anti-national and had plans to convert India into a land of Christianity. For that the missionaries were getting very huge foreign funds. People were asked to protect "our tradition and Hindu religion and teach a lesson to the Christians so that they do not convert people". One of the speakers said that they did not need to fear as the governments at the centre and in the state were "ours" (of the Hindus). It is also alleged that the collector went on the dais and received garlands.

Some Christians who were standing outside the ground protested against the speeches. They appealed to the authorities again and again, without success, to prevent the speakers from making offensive speeches. It is alleged that some Christians threw stones at the meeting. The other side alleges that HJM activists threw stones at Christian women in the market. In the evening around 6 o'clock, the police used lathis and tear-gas to disperse the meeting to avoid any further confrontation. "Had there not been a lathi charge at that time, some Christians would have been killed as many of the participants in the rally were armed with stones, steel pipes, sticks, and trishuls", a police constable, a patidar by caste from central Gujarat who was on duty at that place, observed in a personal interview with this writer.

As the meeting dispersed, a crowd of 50-60 persons went to the market. The mob broke open and looted five shops. Furniture was broken. Three of the shops were of Muslims and two were of Christians. Another mob went to Deep Darshan school, about one and a half kilometre from the venue of the meeting. It was allegedly led by Janubhai Pawar, Bajrang Dal leader. Two policemen who were on duty with sticks to provide protection could not stop the crowd. Stones were thrown and window panes broken. A third mob went to Subir, which is around twenty kilometres from Ahwa, by jeep. They first threw stones at the hostel. A few persons from the crowd went inside the compound of the school and set fire to a jeep and a motorcycle. On the same night six individual Christians were beaten up in different villages. Two churches were damaged. Next day when the home minister of Gujarat camped in Ahwa, churches in three villages were set on fire. A Christian was beaten up in one village. On the 27th 10 churches in different villages were damaged or set on fire. In five days from the 25th to 29th 19 churches were reported to have been damaged and 10 Christians beaten up. Except in three or four cases, the injuries were minor. The police has arrested more than 100 persons, both Christians and non-Christians and adivasis and non adivasis, local and non-Dangis. But some Christians live in fear because they have been warned that as soon as the state reserve police is withdrawn "we will teach you lesson".

During my visits to several villages in early January I found sharp Christian-non-Christian divisions in the villages. Several non-Christian adivasis told us that the present strife had been the creation of politics. In most of the villages outsiders damaged the prayer houses. That too during the nights. In Muchond village the church was set on fire on the 27th at midnight by hooligans who came to the village from outside in a jeep. As soon as the village

inhabitants came to know of the fire they joined together to extinguish it. The initiative came from non-Christians. This is true of many villages. In a few villages Christians and non-Christians jointly repaired the damaged churches.

The BJP government in Gujarat and at the centre said repeatedly that there had been conversion by force. But so far they could not get any evidence. Concocted instances of disfiguring of Hanuman idols or throwing away of idols into forests by Christian adivasis have been widely circulated. Newspapers have published such stories without verification. The deputy chairman of the state planning board, Acharya, who is preparing a 'Hindu Economic Plan for Gujarat' had the audacity to say publicly that the destruction of churches in the Dangs was a 'reaction' of the Hindus. According to him, "It is the missionaries who started the whole thing. The Hanuman temple was attacked first, leading HJM to take out a rally on December 25 as a show of strength of the Hindu forces" [2] In response to our question "Why did you organise rally on 25th December?" Swami Avishanandji, the main organiser of the rally, said, "If conversion is their constitutional right, to organise a rally on any day is our constitutional right". The leaflets, cited above, attacking Ishu and the Bible were circulated. They bore the publishers' and printers' names. Such activities were a deliberate attempt to hurt religious feelings and contributed to creating tension in the area. But the government has not taken any action against the culprits.

IV

The Dangs is in turmoil. During the last three decades the Dangis have been pushed out of their forest-based subsistence economy. They have been forced to be settled agriculturists, but the total farm land area available to them has been considerably reduced. Whatever little agriculture land they cultivate is being increasingly encroached upon by the forest department for plantation. They are almost debarred from using major and minor forest products. The quantum of forest labour has declined significantly, forcing them to migrate outside to work on low wages and in wretched condition. Education has increased, but without non-farm job opportunities. Unemployment among the educated has increased, leading to frustration. Various welfare programmes have not taken off the ground. Restlessness among the Dangis has been manifest in various forms, resulting in several agitations. Atrocities against adivasis involving the forest and police departments have increased. Instead of solving their basic issues of survival, the present agitation focusing on Christian missionaries has been fostered from outside, diverting the prevailing tension and dividing the Dangis on religious lines which are a non-issue for the Dangis.

The events in the Dangs are a part of organised persecution of Christians in Gujarat. The additional chief secretary of home department is reported to have told district collectors in, 'high level review meeting' in November 1997 that "there is a conspiracy in tribal areas to destroy Hindu 'sanskriti' by creating class war and large-scale conversion. Tribal welfare programmes need to be geared up to counter the conspiracy." He asked the district collectors to keep a close watch on Christian missionaries and their conversion activities.[3] The anti-Christian campaign on a large scale spearheaded by VHP, HJM and Bajrang Dal followed. In 1998 a number of events took place in different parts of the state, including the burning of the *New Testament* in Rajkot, digging out of the body of a dalit Christian from the grave in Kapadwanj, attack on nuns in Panchmahals, and damaging of churches in tribal areas. The VHP and other organisations are openly involved in the anti-minority campaign. The director-general of police, C P Singh, accepted in October 1998 that "it was the activists of the Vishva Hindu Parishad and Bajarang Dal who were taking law into their own hands which posed serious danger to peace in Gujarat. Many of the attacks on the minorities were after these organisations had whipped up local passions on mere allegations of conversions [by Christian missionaries] and forced inter-religious marriages, where again conversion was supposed to be the alleged motive..."[4] But the government has not taken action against the culprits. Moreover, the Gujarat government has set up a police cell for monitoring inter-religious marriages. This announcement was made in the assembly by the home minister. Thus the state has become openly a party to the persecution of minorities.

Notes

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1 In 1993, on behalf of 228 adivasis of 20 villages a special civil application was filed asking for restraint on the forest department and its employees from evicting the adivasis from the land they have been cultivating [Engineer 1999, Chaudhari 1998]. The Court issued the stay order.

2 *The Times of India*, Ahmedabad, January 2, 1999.

3 *Sandesh*, Surat, November 8, 1997.

4 *Communalism Combat*, October 1998.

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Worst Tragedies, Least Reported

Bharat Dogra

Media manipulation is not a new phenomena. Many states have resorted to it over this century, making for a distorted picture of disasters and conflicts.

IT is ironical that some of the worst tragedies of the century were least reported, at least at the time that these occurred. One of the most infamous examples is that of the great Chinese famine of 1950-61. The *Third World Guide*, a widely cited reference published by Instituto del Tercer Mundo, Uruguay, says, "In 1958, Mao launched the Great Leap Forward, aimed at accelerating rural collectivisation and urban industrialisation. This heavy-handed, dogmatic and inflexible plan led the country down a disastrous path, sparking widespread famine in the countryside. Planners in the cities continued to order food to be shipped out of rural areas, assuming that peasants were understanding their production by 15 per cent, while party officials in rural areas were actually over reporting production by 15 per cent. The official Chinese figure for deaths between 1959 and 1961 is 20 million, one of the greatest human tragedies of the century, and one of the least reported." The *Human Development Report* (HDR) 1997 says that the mortality was even higher. This report says, "In 1959-62 more than 30 million people, most of them peasants, died in the Great Famine (of China)". It is perhaps not entirely unrelated that this domestic fiasco was followed by China's invasion of India in 1962.

Subsequently, the 'cultural revolution' also took a heavy toll of innocent lives in China. In the words of the *Third World Guide*: "At its worst, the Cultural Revolution degenerated into mob rule as opportunists skilled in revolutionary rhetoric settled personal scores. With the 'struggle between two lines' attaining civil war proportions at some stages in the Cultural Revolution, production suffered severely as many factories and universities closed altogether. An estimated 10 million died during the years of turmoil."

Earlier in Soviet Union, during the years of Stalin's supremacy, several hundred thousand people were killed to curb dissent in the course of arbitrary imposition of ill-advised development programmes devised by bureaucrats or armchair theorists having little contact with reality, particularly rural reality. When Stalin tried to forcibly convert Kazakh nomadic herders into collective farm ranchers in the 1930s, as many as half the population of herders are estimated to have died fighting this change.

The terrible ecological ruin of Soviet Union of course continued well beyond the years of Stalin, in fact it was probably accentuated. As Zhores A Medvedev has written in a widely quoted paper, 'The Environmental Destruction of the Soviet Union' (*The Ecologist*, 1990): "The Soviet Union has lost more pasture and agricultural land to radioactive contamination than the total acreage of cultivated land in Switzerland. More land has been flooded by hydroelectric dams than the total area of the Netherlands. More land was lost between 1960 and 1989 through salinisation, changes in the water table, and dust salt storms than the total area of cultivated land in Ireland and Belgium put together. Amidst acute food shortages, the total acreage of cultivated land has declined by one million hectares a year since 1975. The Soviet Union is losing its forests at the same rate as rainforests are disappearing in Brazil. In Uzbekistan and Moldavia, chemical poisoning with pesticides has led to such high rates of mental retardation that the educational curricula in secondary schools and universities have had to be modified and simplified."

The same expert further related how the entire tragedy had been covered up in secrecy for a long time. "Secrecy and government propaganda ensured that there was no open debate in the Soviet Union about environmental issues – and that the debate that did occur was confined to small groups of concerned individuals. Censorship prevented the general media from disclosing pollution statistics, even for non-toxic substances. Pollution caused by the military or nuclear industries was totally secret. The levels of everyday operational discharges of radionuclides from nuclear power stations were also classified. The methods of nuclear waste disposal and the location of the waste facilities were unknown. The Soviet people do not even know where their uranium mines and uranium enrichment plants are located. Food contamination by pesticides, nitrate or other chemicals remains unreported. Although government institutions exist to monitor the environment and to exercise toxicological control over food, they are subjected to official secrecy. Unofficial measurements are strictly prohibited."

However, it will be a mistake to think that such cover-ups have been confined to communist countries. In fact the most advanced western countries which take pride in the freedom of their press have also been involved in massive cover-ups of important events. Perhaps the most important cover-up related to the motives behind the nuclear bombing of Hiroshima and Nagasaki in 1945. The American establishment successfully managed the mainstream media to hide the crucial fact that the US's own top military experts had said clearly that the use of nuclear weapons was neither necessary nor justified. Before Hiroshima, general Eisenhower told Stimson, top adviser to president Truman, "Japan was already defeated and – dropping the bomb was completely unnecessary". General Douglas MacArthur told author Norman Cousins that "he saw no military justification for the dropping of the bomb". Admiral William Leahy, Truman's chief of staff said, "The Japanese were already defeated and ready to surrender... My own feeling is that in being the first to use (the atomic bomb) we adopted an ethical standard common to the barbarians of the Dark Ages."

What then was the real motive behind the use of nuclear weapons? Physician Loe Slizard, whose discovery of the chain reaction had contributed to the atomic bomb (much to his dismay) later said, he was told by secretary of state James Byrnes that he and president Truman believed that the use of the bombs on a live target were necessary to make the Russians 'more manageable' following the war. Prominent British scholar PMS Blacket has written, "The dropping of the atomic bombs was not so much the last military act of the second world war as the first major operation of the cold diplomatic war with Russia". This real motive was successfully hidden by the American government for several years.

A widely cited book co-authored by Noam Chomsky and Edward S Herman says that at the time of the Vietnam war the American media was guilty of portraying "murderous action as a defence of freedom". Other observers have pointed out that highly destructive weapons used in the more recent gulf war were later popularised as video games by media, reducing mass distress and deaths to trivia. In Nicaragua the US government wanted to overthrow the pro-democracy, pro-poor Sandinistas and the major newspapers extended full support to this idea. This reduced the entire debate to the tactics that ought to be used to throw out the Sandinistas; the view that the Sandinistas should be helped instead of being disrupted was simply ignored. According to a study released by the Centre for Public Integrity, US, "The Reagan and Bush administrations have manipulated war coverage so drastically that the American public has a distorted picture of conflicts from Grenada to the Gulf".

North-East: Crisis of Identity, Security and Underdevelopment

Jayanta Madhab

Even after the creation of seven states to satisfy the ethnic aspirations of the local people, the north-east continues to be in turmoil. Further balkanisation is being demanded which will lead to the creation of very small and totally unviable states. The existing states have failed to meet the basic needs of the people. There is growing discontent over corruption. The regional disparity between the north-east and the other states has widened as has the disparity between the rich and the poor in the north-east. Clearly, it has become necessary to reconsider the approaches and policies followed so far.

IN the 1950s, north-east essentially meant Assam, Manipur and Tripura. The colonial power introduced a number of administrative concepts like excluded areas, partially excluded areas, tribal areas, frontier tracts, north-east frontier agency, etc, to govern the hill areas of the north-east. Out of erstwhile Assam, partly to rationalise these concepts and partly to give vent to ethnic aspirations, the government of India had created four more states, namely, Nagaland (1963), Meghalaya (1972), Arunachal Pradesh and Mizoram (1987). If creation of these states would have solved the problems, nothing would have been better. But it created more problems; because, on the one hand, various smaller and bigger communities started to demand establishment of more states; on the other hand, the states showed their incapability to deliver the basic goods.

Indeed today, most parts of north-east are much more disturbed than ever before; development is stalled, bureaucracy is bloated and nothing is left for funding development, unemployment is acute; clamour for independence and creation of new states is at its peak.

It would have been simpler to describe these phenomena as a natural corollary to or a fallout from the process when a traditional society modernises. While this is partially true, the main problems lie elsewhere. The crisis is one of identity, security and underdevelopment, all interlinked.

One must realise that north-east is a mini India. There are more than 75 major population groups and subgroups, speaking approximately 400 languages and dialects, of which there are about 168 in Arunachal, 55 in Nagaland, 87 in Manipur, 100 in Tripura and 200 in Assam, Meghalaya and Mizoram. One political geographer remarked, "by virtue of its location in the transitional zone between east and south Asia, the region characteristically exhibits amalgamation of phenomena, with factors of race, language and religion. This enabled every subregion in the study area to display distinct socio-cultural and politico-economic leanings and attributes" (Gopalakrishnan, *Socio-Political Framework in North East India*, 1996, p 27). The elite of the different dominant groups having seen that neither size of population nor economic viability matters in establishing states within the Indian union and that only political pressure, violent or otherwise, is required, there is an upsurge of demand for subdividing Assam again and the potential demand for subdividing Tripura, Meghalaya and Manipur cannot be underestimated. On the one hand, the experiment with autonomous district councils or for that matter village councils in Nagaland has not, for various reasons, proved to be successful; on the other, the states have failed to deliver the basic requirements of a society. On top of this, state politicians with the help of the bureaucracy siphon off a big chunk of state financial resources, mostly coming from the centre. This comes as an incentive to the so-called elite groups for demanding new states. Creation of states not on the basis of economic viability but on political aspirations has not really helped the populace. Most of the budgetary resources are spent on salaries and to a smaller extent on debt service, leaving practically nothing for development. Income disparities have grown and regional disparities, after the introduction of the liberalisation policies, have grown even further. The north-east states have lagged behind eco..omically further and further in relation to the other states.

In addition to the demand for creation of new states, there are long pending demands backed by violent struggles in Nagaland and Assam for independence.

Looking at this kaleidoscope, one wonders why there have been such violent and vociferous demands for independence and for new states in the north-east. Indeed, no other part of India has been subjected to such a prolonged violent struggles, which have held development to ransom, as the north-east.

Behind all these demands and struggles, the overriding factor is one of identity. The fear of losing identity is paramount. This is compounded by the security factor, which is essentially protecting the land from outsiders. The latter factor was so important that as far back as 1873 the colonial power introduced the inner line regulations for most of the areas. The hill states fear that people from the plains and neighbouring countries may take their lands to set up trade, industrial projects and thus jeopardise their security and upset the demographic balance. Mizos told the then home minister S B Chavan in 1994 that "the need for tribal people is survival as tribal and development is our secondary issue". For that reason, the Mizoram government does not even levy sales tax, the most productive of state taxes. If sales tax is levied, registration certificate will have to be given to outside traders which will enable them to establish residency.

Assam did not have an inner line permit system. As a result of this and taking advantage of it, there was induced immigration and later influx from Bangladesh and Nepal. The immigration problem has overshadowed all other problems since 1979. There is no realistic estimate of immigrants, but estimate varies between 30 and 40 lakh. During 1971-91, the Muslim population grew nearly twice as much as the Hindu. The rate of growth of voters in the immigrant areas has been higher than the rate of population growth of the state. One observer reflected the sentiments of the Assamese people in 1985: "Within fifty years they will form the majority in Assam. The next step will be a referendum on merger with Bangladesh. With Assam gone India will have no land link with the rest of the north-east India" (*Assam Tribune*, August 17, 1985).

This may be imaginary and unlikely to happen, but the fear is real amongst the indigenous people of Assam. The Assam Accord of 1985, which dealt with the foreigners' issue and was supposed to identity and deport foreigners from Assam, was a total failure as far as this issue is concerned. The IM(DT) Act, which was introduced only in Assam while the rest of India follows another Act, was a non-starter. The various central and state governments including the AGP government in Assam have promised scrapping of this Act, but have done nothing in view of the governments' dependence on minority votes and on their MPs and MLAs. Therefore, no government in Assam can

afford to alienate this sizeable group. In August 1994, no sooner former chief minister Hiteswar Saikia made a statement in the Assam assembly that in a single year 30 lakh Bangladeshi infiltrators had entered Assam, the leader of the Muslim Forum threatened that unless the chief minister withdrew his statement, the Forum would pull him down in five minutes. The chief minister later said that "there is not a single foreigner in Assam". Therefore, the solution to this vexed problem becomes difficult if not impossible. In the meantime, agitation and struggle go on. Frustrated youth lose faith in the system and take up arm for independence.

An eminent historian has remarked, "a solution of the problems of foreign nationals is apparently extremely bleak. If the inflow of infiltrators remains unabated even at the present rate it will be only a question of time when the indigenous Assamese will be alien in their own home" (Borpuzari, *North East India: Problems, Policies and Prospects*, 1998, p 126).

If such be the case, clearly some re-assessment of the issue is necessary. Fourteen years have passed by and people have become disenchanted with the progress of identification and deportation of foreigners. AASU continues to agitate on the issue, submits memorandum to prime minister, home minister and chief election commissioner and observes 'Betrayal Day', etc. The Boros, on the other hand, decided to settle the issue themselves through what is called ethnic cleansing. Arunachalis, Khasis in Meghalaya, indigenous Tripuris and Mizos were not to be left behind; they also had their own scores to settle. There was a time in 1987 when there was a clamour which can still to be heard, from a section of politicians that all of north-east should have inner line regulations or Kashmir style constitutional safeguards.

While all these agitations go on, the influx is unabated and attempt to deport foreigners are stalled. The Bangladesh government is in no mood to receive such huge numbers of people and, in fact, denies emigration. The central government is equally reluctant to pursue the matter with Bangladesh. Under these circumstances some rethinking on the problem is necessary.

Among political developments, another important one needs to be mentioned. While the state legislative system is well developed, at the tertiary level of district councils, panchayats, village council, the system has not either got off the ground or not worked properly. The states are equally reluctant to share resources and functions. No elections have taken place to panchayats in Assam despite high court orders. The Shukla Commission recommended that those services which are village specific like rural water supply, elementary education, primary health, PDS, etc, should be implemented at the panchayat/district council/village council level. This will enable peoples' participation and better transparency and probably lessen corruption. But this has not happened.

On another front, arguments have been made that while the north-east has a land area of about 8 per cent, but peoples' representation in the parliament is only 4 per cent. This may not be a tenable argument. But there is an element of truth in it. Take, for instance, Mizoram; it has only one MP in the Lok Sabha. The system being what it is, he may get to speak only once in five years. This is totally unacceptable. Entire Mizoram may remain unheard. Some better methods have to be established.

Along with the issues of identity and security, underdevelopment is the third factor which has given rise to agitation and insurgency. Barring Nagaland all other insurgency movements in the north-east had their genesis in economic backwardness.

At the beginning of the planning era, the north-east economy compared well with the rest of the states. No sooner the effects of partition were felt, the economies started faltering. For, the region lost the most vital transportation routes through East Pakistan. Instead, it had to take a long, fragile and circuitous route which was costly. As a result, anything the region produced became expensive to market outside and its products became uncompetitive. The region, on the other hand, had to pay more for all the products brought from outside of the region. If there was one overriding problem, it was the connectivity problem. Unfortunately, even after 50 years of independence, it is the same. Lack of infrastructure, particularly communication, transportation and power, became critical. Together with the lack of investible capital and lack of entrepreneurship, this slowed down the pace of development. Local entrepreneurs, already small in number, could not seize the available opportunities.

Agriculture which is the mainstay and on which 70-80 per cent of the populace depend is still traditional and rice output is only one-third that of Punjab. The region is rich in horticultural products, but again the productivity is low and because of lack of market access farmers do not get remunerative prices and get discouraged. The region is blessed with water resources, yet it imports about half of its fish requirements from outside. Even worse is the case of livestock development. Assam imports 74 per cent of its milk products, 94 per cent of eggs and 98 per cent of its meat requirement. Except Manipur and Tripura, whose agricultural productivity per unit of land is higher than the all-India average, in the rest of the states in north-east agricultural productivity is a point of concern. In 1991-96 Assam's agricultural growth rate was estimated at 1.2 per cent, much below the rate of growth of population and that of Meghalaya 0.8 per cent and Tripura 0 per cent. Despite the fact that agriculture and allied sectors contribute more than 31 per cent to state GDP and has the potential to grow the state's budget allocation to this sector is meagre. Assam spends only 7 per cent out of a total Rs 6,000 crore budget on that sector. Manufacturing sector is small, never contributes more than 5-6 per cent to the state national product. Due to lack of investment, growth is stagnant. Only the service sector, i e, government, and the construction sector, due to government investment mostly on border roads in some states, are growing.

The Shukla Commission estimated that about Rs 2,500 crore worth of consumables are imported from outside the region every year. In addition, the credit-deposit ratio being very low in the region, the banking sector transfers something like Rs 5,000 crore from this region to other regions for investment. Because of prolonged insurgency in the region, despite abundance of natural resources (oil, gas, coal, granite, limestone, water and forest wealth), no outside investment has taken place. Indeed there was capital flight in the last eight years from the region. Unemployment, particularly educated unemployment, is high. All these have compounded the problem.

Looking back, the planning priorities of governments, both central and state, were faulty. The implementation of projects and programmes was even worse. Whatever public sector enterprises were established, almost all got sick due to mismanagement. Basic requirements like law and order, justice, primary education, primary health, water supply and sanitation, motorable roads and electricity could not be delivered by the states despite having received from the centre Rs 42,000 crore during the last seven years. The per capita devolution is highest in the north-east amongst the states. This is, however, not without reason. All projects in the north-east are big and lumpy. Projects can be implemented only during five months of the year due to prolonged monsoon; all

projects cost more because of transportation problem. Whatever the reasons, the common man has not been benefited by the huge development effort. Corruption, like in other states, is all pervasive. People at large in the north-east are very critical of the performance of the governments which have failed to harness the abundant natural resources of the region and exploit the potential of border trade with Myanmar and Bangladesh.

Insurgency in Nagaland is the oldest in the region, though it has been halted at various times by the signing of accords and obtaining of concessions. The more aggressive NSCN has its origin in 1975 and for the last 28 years has waged a war against the establishment. Mizos fought for nearly 20 years. ULFA, the Boros and other outfits in the north-east are comparatively new. Nagas, after half a century of instability, are clamouring for peace: a cease-fire with a section of NSCN is in place. The other section has still to make up its mind. Local people say that this has enabled the underground to come overground and collect extortion money and taxes more openly.

In any case, insurgency can survive only when the local population gives support or remains indifferent. Unless local people clearly make a choice in favour of government, insurgent outfits will survive in some form or other till the ground for insurgency are removed. Local people make the choice when they see the benefits. Unfortunately in several states on the north-east, local people are still largely indifferent, mainly because governments have miserably failed to deliver the basic necessities of life. They also see the pervasive corruption. Lately, however, both in Nagaland and in parts of Assam a realisation has come that the costs involved on both sides are tremendous and the time has come to discuss the issues.

To sum up, even after the creation of seven states to satisfy the ethnic aspirations of the local people, the region is, still in turmoil. Further balkanisation is being demanded which will lead to creation of very small and totally unviable states. The states have not been able to deliver the basic goods to their people. There is a growing discontent over the level of corruption. The regional disparity between the other states of India and the north-east has widened as also the disparity between the rich and the poor within the region. Except Mizoram and Manipur, all other states have a higher percentage of people below the poverty level than the all-India average.

Clearly, some rethinking is necessary. Existing policies have not worked; further creation of states will not guarantee the end of the problem. Independence is beyond the purview of any government to grant. What is required therefore are the following:

(1) Encourage free, frank and open debate on the issues of the north-east within and outside the region; let the population understand the issues in their perspectives and in totality.

(2) Willingness on the part of the government of India to discuss unconditionally with all major insurgent groups.

(3) Rethinking is necessary on the issue of federalism, to enable states and tertiary level institutions to participate fully in the all-round development of their constituents.

(4) Sincere efforts are required on the part of the central and state governments to strengthen the functioning of tertiary level institutions like panchayats, autonomous districts/village councils.

(5) The foreigners issue needs to be reassessed in view of the current situation. Serious efforts are needed from all quarters to solve this vexed problem which seems insolvable. Some rethinking is necessary.

(6) Identity and security which are such emotional issues in the north-east can be assured through various means which need to be explored. Land alone need not be the only means of security.

(7) Consideration for giving labour permits to Bangladeshis and Nepalese may not be ruled out once identity cards to the residents are given.

(8) The central government had commissioned various studies through committees and commissions. Two former prime ministers also announced hefty packages for the north-east. The Shukla Commission's recommendations largely remain unimplemented till date. People at the ground level do not see any difference. Indeed people have become disenchanted and cynical. Money alone will not help, unless accompanied by strict accountability. Money has come before, it may come again, but the people's lot will not improve if the same system of disbursement is followed. Radical thinking is necessary.

(9) At the same time, one cannot emphasise too much that whatever the commitments made by the central government should be honoured through a time bound plan.

(10) In a federal structure, it is the responsibility of the central government to see that regional disparity does not go beyond a point. Reasonable, not total, parity need to be maintained.

(11) Lack of appreciation and understanding of north-east in the rest of India, particularly in the power centres, has compounded problems. This needs to be removed.

There is a tendency at the centre and elsewhere to see this region as a liability. But one must recognise that the region was once prosperous and peaceful till extraneous factors, not of their making, began to hurt. Its hydropower potential, oil and gas resources, its forest wealth, if prudently used with linkages with south-east Asia can benefit the whole country. Therefore it is time to see the area as an asset rather than a liability.

Untouchability and Dalit Women's Oppression

Bela Malik

A purely dalit or a purely feminist movement cannot adequately help dalit women. But no matter. Dalit women participants at the Convention against Untouchability and Dalit Women's Oppression were willing to help themselves. Even as they narrated their problems and humiliations, there was pride in a new identity, in being able to withstand hardships, and in the strength and courage to wage attritive battles.

FIFTY years after independence ritual pollution, caste exploitation and all the other legacies of Indian civilisation that those who oppose affirmative action in the name of efficiency choose to ignore, and which those who oppose it from more prejudiced motives would like to perpetuate, are alive and well, keeping in good cheer the less polluting 'citizens' of the nation. And the images of all of these were graphically brought out at the Convention against Untouchability and Dalit Women's Oppression, organised by the All India Democratic Women's Association (AIDWA) on December 20, 1998 at Delhi. All that was recounted at the convention highlighted the need to address the specific problem of caste oppression compounding the burdens imposed by a generalised patriarchal exploitation. Thousand-odd dalit women from Punjab, Haryana, Rajasthan, Himachal Pradesh, Uttar Pradesh, Bihar and Madhya Pradesh participated in the convention, along with several guest speakers and AIDWA activists and sympathisers. The turnout of a thousand-odd was impressive.

Dalit women speakers used the forum to articulate their problems and to share the experiences of their struggles. They were from diverse backgrounds, belonged to different age groups and had varying degrees of consciousness about the gap between the reality of their socio-economic conditions and the legal rights that they notionally possess. The degree of passion expressed varied accordingly. The younger women, for instance, were more militant and less willing to tolerate the terms of their existence. The women were mainly rural, though some activists were based in urban areas. Some women were politically active and held political office at the panchayat level. Others were agricultural workers or construction labourers. Despite these differences, there were common threads running through their accounts. They narrated their experiences without hesitation, and in a wide and mutually incomprehensible variety of dialects rendering the term 'Hindi-speaking-belt' somewhat of a misnomer.

For the dalits, caste and class merge in subjecting them to the margins of India's political economy. The convention foregrounded the indignity being experienced and resisted by dalit women. Concentrated in the primary sector, only a fraction of land is owned by dalits, and holding on to land that is legally theirs more often than not involves protracted and tenacious struggle. Resorting to a mere language of rights is inadequate as a solution to the experiences of this section living away from the middle class world of rhetoric and debate.

In Haryana, for example, according to the 1991 census, only 8.06 per cent of scheduled castes own land, while 55.08 per cent are landless agricultural labourers. Land 'pattas' are never in dalit women's name. For dalits in general, access to schools and education is minimal. As an instance, in Rajasthan, only 8 per cent of dalit women are literate

While it is true that dalits in general are oppressed, dalit women bear a disproportionately higher share of this burden. Given the division of labour within the household, women have to suffer more from the lack of access to water, fuel sources, and sanitation facilities, exposing them to humiliation and violence.

Upper caste women are often among the perpetrators of oppression. In this general environment, the contexted significance of a purely dalit or, more specifically, an exclusively dalit women platform seems only natural. Given the nature of oppression, a struggle for a better life for dalit women cannot, perhaps, be divorced from a wider social emancipatory agenda. It is often the case that a purely theoretical feminist argument asserting the equality of women is not adequately sensitive to the larger context of caste and class context in which oppression and inequality of women is practised. It remains a matter of reflection that those who have been actively involved with organising women encounter difficulties that are nowhere addressed in a theoretical literature whose foundational principles are derived from a smattering of normative theories of rights, liberal political theory, an ill-formulated left politics and more recently, occasionally, even a well-intentioned doctrine of 'entitlements'.

Dalit women face discrimination in access to a dignified life, to legal redress to claim what is theirs in principle, to equal wages, to the decision-making process, and to benefits from government initiated programmes targeted at their welfare. Issues of childcare and health are relegated to the background in a struggle for subsistence. The problem of being marginalised and therefore discriminated against is worsened by the practice of untouchability. Sharecropping, for example, is not extensive among dalit families due to the observance of ritual purity by caste groups. The grim reality of untouchability appears inescapable. It is there in schools, in tea shops, while labouring, while walking on public roads. The fear of indignity, humiliation and rape is always present. For instance, speakers reported that food was thrown to them as if they were dogs. The abuses were casteist "she looks like a 'chura'". Speakers also pointed out that casteism was practised by people across religions. Caste becomes convenient in reinforcing existing inequities. Control over resources that fulfil fundamental human necessities is established unequally, in conformity with the coercive power of class. Its distribution, therefore, can only serve the ends of extended coercion.

Women participants were keenly aware that caste pollution, by either presence or touch, that operated so strongly in the case of conflict over public resources seemed not to matter at all in the extraction of labour. When it comes to taking water from a hand pump, notions of ritual purity are invoked, when it comes to the extraction of labour in the field, it does not matter at all that the seed is planted, the crop tended and the grain harvested by the same untouchable. The same applies in the case of rape as social revenge/punishment/coercion. By a curious quirk, the untouchable becomes socially touchable in more ways than one. The image of a homogeneous Hindu people in pursuit of a single civilisational dream was seen for the eyewash that it was by many speakers. Even in the case of purportedly so fundamental an aspect of life as worship, the invocation of the existence of caste to create separate places of worship was emphasised. Even in the aftermath of the

demolition of the Babri masjid, which was ostensibly the act of a united Hindu community, all temples were not open to dalits.

The speakers were aware of the work of mobilisation by the hindutva brigade in their midst. A strong sense of the limiting practice of untouchability was manifest. This consciousness raised some broader self-evident questions. Once this awareness exists, what is the mode of politics that becomes necessary? Secondly, what are the implications for a sociological analysis of Indian society insofar as a transformative knowledge or a transformative self-realisation exists? Some sociological and anthropological, and from it, uncritically imitative historical writing pursuing knowledge from the perspective of identity, seems to evade altogether the transformative possibilities presented by such consciousness.

Be that as it may, this experience was common to the urban and rural parts of north India. While a comprehensive legislation, the Scheduled Caste and Scheduled Tribe (Prevention of) Atrocities Act, 1989, exists on paper, social, political and economic pressures ensure that it remains ineffective. Of the innumerable cases of rape of dalit women, only a fraction of the victims lodge reports, an even smaller fraction is filed by the police, while actual conviction is negligible. The problem lies not so much with the law itself as with the context in which it exists.

The gravest problem is that of both an absolute and relative scarcity of drinking water. At common water sources, dalit women face humiliation, and are even deprived of water because upper castes assert their privilege in respect of drawing water. Unequal relations are compounded from the lack of equality in access to resources. The inequality is reproduced when, in exchange for permission to draw water from a public source, dalit women are forced to perform various menial tasks for upper caste women. The everyday act of collecting water invites many abuses and jibes. Many speakers complained of how they were made to beg for water, and after they were given permission to draw it, were made to scrub the hand pump clean.

In a country where sanitation is a scarce facility, and since what is scarce is subject to public disputes, the principle of distribution operates along a caste-class axis. The landless suffer, the dalit landless suffer even more and dalit landless women suffer the most. Dalit women are often forced to use fields that belong to upper castes, leaving them susceptible to physical and mental harassment.

The problems arising from lack of literacy and education were reiterated. Dalit children face discrimination at schools. Their objective conditions force them to drop out of school. Many speakers felt that without education, the next generation too would be trapped into the same iniquitous social world that their parents inhabit. Lack of electricity in villages and alcoholism among men were problems which found mention.

The mode of transformation in demonstrably unequal societies is the political organisation of socially oppressed groups to assert their purportedly guaranteed equal rights. Right comes alive when claimed, and it can only be claimed when those who are guaranteed the right, but deprived of it, organise and struggle to attain it. Mere organisation does not secure it permanently. Neither do stray acts of militancy, successful or otherwise, necessarily enable the transformation of a backward social reality. The organised force needs to assert itself constantly until such time as the right is secured permanently. Only then can the legal framework itself be said to be reasonably democratic, and, most importantly, only then can the judiciary, especially at the lower levels, be forced to think and act differently.

Instances of such assertions were recounted at the convention in colourful and pithy terms, far removed from the customs and protocols of genteel society. Accounts were given of women organising themselves to ensure that policemen do not harass them, or even enter their village. Such organising also ensured that land legally theirs, but coveted by upper caste groups, was not lost. Most importantly there was a pride in being hardy, in not being pampered, in being able to withstand great hardships, in having a new identity, other than the caste-designated identity, in the strength and courage to sustain and endure attritive battles. It was a feeling of "we do not have the strength to bear any more, we only have the strength to fight". A poignant account of the struggle of the women of Kitmai village, in the Fatehpur district of Uttar Pradesh, was given. Rape of women in this predominantly dalit village was a routine matter. Collective action through the organisation of a Mahila Samhiti led to an improvement in the condition of women in the village.

The convention brought to the fore the need to look at the different forms of exploitation that take place and then to link these up so that a practicable emancipatory strategy can be devised. What also became obvious was the prevailing and worrying disjuncture between the more avant garde practices of the social sciences and the grim Indian political reality that awaits transformation. That the social sciences, such as they are, can exist, even flourish, in such a context is itself a telling statement.

Havana versus Davos

The Unbridgeable Chasm

Frederic F Clairmont

The world economic conference in Havana in January, called by the Association of Economists of Latin America and the Caribbean, was explicit as to its purpose: to ensure maximum participation in the free exchange of ideas. Nothing reflected the spirit of generosity of the conference better than the courteous public exchanges between the World Bank representative and president Fidel Castro.

TWO major world economic conferences straddling the ambiguous theme of globalisation occurred about the same time. The first, in Havana, by the Association of Economists of Latin America and the Caribbean; the second, by the world's biggest capitalists and their political hangers-on in the elite Swiss Alpine resort of Davos. That however was where the similarity ended. The first ruthlessly analysed the ravages of the economic, cultural, political and social policies of neo-liberalism, pressed so relentlessly by the satellite trinity of transnational capital and the US caste oligarchy: the World Bank, IMF and WTO. Its logo is uninhibited market freedom of capital, liquidation of the nation-state, and the wholesale obliteration of the democratic institutions that partnered it over the last two centuries. These policies were tantamount to a gulag of a special kind that literally involved job liquidation to the tune of millions. The name of the game is restructuring.

The Davos Forum, militant propagandist of transnational capital, was engineered to ensure the perpetuation and consolidation of the *univers concentrationaire* of Big Capital, with the *pensee unique* its dominant totalitarian trait. Understandably, its deliberations received world coverage in the corporate media in contrast to Havana. Was this not to be expected inasmuch as Big Capital and its mediatic protuberances are cesspools that hardly require publicity? Significantly, George Soros, Milton Friedman and John Kenneth Galbraith and others were invited to Davos but chose to stay away.

Organising Principle

The first thing that struck the participants in the Havana conference was the beauty of the surroundings. The hotel and its huge complex, one of the most stunning in the Americas, included the convention centre where the plenary was held – a source of enormous pride, financed, built, owned and managed by Cubans. The numbers attending the meeting were between 550 and 600. Simultaneous interpretation in five languages (including Chinese) was provided. Many of them were economists, engineers and workers and intellectuals and public figures such as Mme Mitterrand and many other prominent political, scientific and cultural figures from the Americas and elsewhere. The architects of this gathering were explicit as to its purpose: to ensure maximum participation in the free exchange of ideas. A goal that was consummated.

It was the antithesis of the *pense unique* for widely divergent opinions were expressed. Many corporate media enterprises were invited but not all came. The World Bank spokesman aired his views, nor was he boiled in oil for so doing. Nothing could have surpassed the spirit of generosity of the conference than the courteous public exchange in the plenary between him and president Castro. What country in the world, as an Indian delegate observed, could ever have financed and undertaken this project on such a vast scale, and that in a nation that still labels itself third world?

For five days the intense pace of work never slackened: from 10.00hrs to 22.00hrs with pauses only for meals. The research papers met the highest standards of academic scholarship. They will ultimately be printed and disseminated within Cuba and abroad as pedagogic materials to assist the reshaping of a crisis-stricken international economy.

Unfailingly, president Fidel Castro and certain members of his political entourage were always present, assimilating the knowledge revealed in the presentations. Happily, vigorous meetings of this kind will be institutionalised, if only as a countervailing force to the destructive force of transnational capital and its propaganda *apparatchiks*, of which the Davos Forum is a notorious exemplar. Havana, as a Colombian historian noted, was the twining of humanity and applied economics.

Here was a head of state raising questions, assimilating the new knowledge, venturing his observations forcefully but never dogmatically. His analysis was derived from the staggering diversity of Cuba's revolutionary experience over the last 40 years, nourished by his own extensive reading, discussions and meditations on international economic relations. He never pontificated but by his incessant quest for dialogue it was apparent that the congress had opened new vistas to him and indeed to all of us. In Cuba, the Special Period (following the demolition of the USSR and the socialist camp) is drawing inexorably to an end, perhaps too slowly for many, but nonetheless this is its trajectory. Growth is forecast, according to The Economist Intelligence Unit, to surpass 4.5 per cent this year. Macro-aggregates depict however only a very small part of the gigantic metamorphosis that this nation of 11 million people is traversing; and whose impact on Latin America remains irrepressible. A Jesuit participant came closer to the heart of the matter when he said that Cuba was the only country he knew in the Americas where children do not go barefoot, where they do not go hungry, where they do not sleep on streets, and where they were able to read and write. Monumental achievements by any standards no doubt but Cuba's achievements were much larger as so tangibly exhibited in this conference.

It was a poignant reminder also of the stark tragedies of the totalitarian Frankenstein of neo-liberalism and its maledictions. The congress was a bastion of criticality whose goal was to promote debate on current trends within the world economy by exploring avenues of research via new theoretical and analytical tools. Hence, it was not conceived exclusively as a debating forum but also one for the formulation of alternatives in which social justice, that sworn enemy of the neo-liberal gulag, becomes the noblest of realities.

Economic Background

What shaped the contours of the debate was the breakdown of international capitalism that has battered the world economy since the collapse of the Thai baht in June 1997. A firestorm that shows no signs of relenting, but of accelerating. The once vaunted Tigers, touted by the World Bank, the IMF and the US oligarchy as paragons of 'investor confidence', and the miraculous workings of unhindered capital flows are now squirming in the gutter of moral and economic decay. They are not alone: the credibility of the World Bank and the IMF is in tatters, shunned and assaulted even by the likes of George Soros who has lost faith in the system and transnational speculative orgies that were the source of his net worth of $ 25-30 bn

As the discussions highlighted, even the spokesmen of transnational capital and their media ventriloquist dummies can no longer dissimulate the system's putrefaction, demoralisation and a sense of impending breakdown that permeates corporate boardrooms. Japan is but one more example, followed by the Russian debacle of August 17. The rot did not and cannot be halted. The aftershocks of the Brazilian financial bubble and the wretched expediencies being taken, such as the appointment of one of Soros's agents to be boss of the central bank, dramatises the depths of an irreversible crisis. A moribund Mexican economy and its diseased ruling class, like that of Chile, is no more capable of weathering the typhoon than Brazil. Perhaps nothing is so humiliating as the liquidation of national sovereignty of certain comprador governments as Argentina as stressed by several speakers.

It has sold out the national patrimony to the TNCs, including the banking system. There is nothing much left to sell off. Everything that could be privatised has been privatised. These engulf transportation networks, airlines, gas, oil and electricity, and even streets. Vast tracts of the Argentinean pampas including farm holdings of as much as 4,00,000 hectares have been sold out to foreign investors, George Soros, one of the most conspicuous urban real estate dealers in Argentina, ranks also among its biggest latifundistas, as do the major US grain companies. Far more tragic is that the ruling class is crawling on its belly calling for the removal of the last vestige of sovereignty: replacement of the peso by the dollar. A once freed slave now hollering for the imposition of his chains.

Conclusion

It was appropriate that this path-breaking congress was held in Havana on the threshold of a new century. What it above all demonstrated was the vitality of a nation that had chosen a divergent development path, and for which it has been condemned to death by a foreign power; but which refuses to die or capitulate. A sizeable chunk of Cuban territory, grabbed one century ago, continues to be occupied by a foreign power that celebrates its rape of Cuba's sovereignty. But that's not all. The economic blockade imposed on Cuba has already cost the nation over $ 60 bn. The US in its unilateral action remains accountable to no one. It is a mockery of the very notion of a free multilateral trading system which the US claims to be defending when its political oligarchy has galvanised more than 40 laws and executive decisions to apply unilateral economic sanctions against 76 countries representing 42 per cent of the world's population. Globalisation is not an irreversible process. That is the moral of the congress. What has been globalised by the conquests of the TNC gulag can be de-globalised.

What the congress in its far-reaching debates served to remind us was that while the transnational corporation is an iniquitous institution it contains the seeds of its own destruction best glimpsed in the headlong thrust of the concentration of capital, revelatory not of its strength but of its weakness. Moreover, mass movements are emerging with impetuous force. Ultimately these movements will come to play a decisive role in reshaping the global economy and its peoples. It is precisely the advent of this mighty countervailing force that president Castro had in mind when he observed that inasmuch as the US today is the basis of globalised imperialism, the battle against its dominion must also be globalised.

The Nuclear Option

Some Economic and Strategic Issues

T Krishna Kumar

How are social choices made on the nuclear issue? What is the information base on the costs and benefits of generating the nuclear capabilities required to be termed deterrence? Does the nuclear option itself increase the threat of aggression from neighbouring countries which may mean additional costs without yielding any benefits? Can there be any estimate of possible damage if the deterrence fails?

BEFORE examining the nuclear option we need to have a working definition of what is meant by it. I define the nuclear option as: (i) a nuclear technological capability, supported by a sustained R and D effort, in the field of nuclear power generation; (ii) a capability to indigenously produce and process nuclear weapons material so that the country can be completely self-sufficient and self-reliant in producing the nuclear weapons; (iii) a capability to produce nuclear weapons of a type and intensity that can be regarded as at least equivalent or superior to what our neighbouring countries, which are presumed to pose us a nuclear threat, have; (iv) a surveillance and protection system to defend our defence installations and the densely populated areas from a possible first nuclear attack by our neighbours; (v) capability to deliver the nuclear weapons to the target sites in our neighbouring countries, and this needs to be done accurately and swiftly through surface-to-surface missiles, weapons-carrying aircraft, and submarines. These capabilities are implied by our country's pronounced policy of no first use of the nuclear weapons. Whether one adopts a first use or no first use policy the capabilities required seem to be almost the same.

These capabilities depend crucially on who our enemies are, from whom we fear a nuclear threat or a general threat of aggression. I therefore assume that these neighbouring countries from which we fear such threats are China and Pakistan. The first cited capability is a prerequisite for other capabilities. But it is also a capability that we need in order to be self-reliant in generating nuclear power for peaceful uses. Hence while examining the costs and benefits of such nuclear R and D one must note that benefits accrue to the peaceful uses of nuclear power as well. Of course, there is the tricky question of how to allocate the total cost of joint R and D effort between the peaceful purpose and defence purpose.

Our country exercises the nuclear option by our union government incurring huge military expenditure towards activities that are supposed to generate these capabilities. One of the basic principles of economics is that an activity should be undertaken if the economic benefits outweigh the economic costs. This principle applies equally whether one is considering a private expenditure or government expenditure. The only difference is that the problem of calculating the economic costs and benefits of public or government expenditure is somewhat messy. In addition, one must examine how the social choices are made regarding public or government expenditure on the nuclear issue. The calculation of benefits and costs at the individual level involves a high degree of personal and / or subjective judgment. Individuals have independent perceptions of these costs and benefits, and thus could take different positions on the nuclear issue. Then the question is how a social choice is made on this nuclear issue.

It is on this issue of mechanisms of reaching a social choice based on individual choices that our recent Indian Nobel laureate Amartya Sen worked. The majority decision, which is the hallmark of a democratic political system, can lead to some absurd results, called intransitivity of social preferences, unless some conditions are imposed on the preference structure of individuals. For instance, it is possible that one majority might prefer 20 per cent increase in defence expenditure to 10 per cent increase in expenditure on power, while another majority may prefer 10 per cent increase in expenditure on power to 10 per cent increase in expenditure on poverty alleviation, and yet another majority may prefer 10 per cent increase in expenditure on poverty alleviation to even 20 per cent increase in expenditure on defence. Sen showed that under certain reasonable conditions on preferences of people the majority decision rule will not admit such pathologies and that it would satisfy various conditions that a social choice must satisfy.[1]

It does not necessarily mean that the BJP, which enjoys a majority, is justified in its decision to follow the nuclear option. People may have different perceptions on the threat and costs associated with the nuclear option. These perceptions are based on insufficient and manipulated information available. The perceptions are also unclear and are quite uncertain and vague. It is not clear, for example, what the impact of increased defence expenditure is on the general price level, and on the level of poverty. When government resources are scarce and they are needed both for defence expenditure and also for an alternative such as poverty alleviation, one needs to know the trade-off between poverty alleviation and increased defence expenditure. It is therefore possible that with better and more information people may modify their perceptions. The social decision based on majority under that revised situation may or may not be in favour of the nuclear option. A nationwide debate on the issue may enable us to make informed and better social decisions through the majority rule of our democratic system. This is again one of the major conclusions reached by Sen: In a good democracy in which people have concern for one another, particularly for the poorest of the poor, in which there is freedom of speech and expression, and where people exercise their opinion through the vote, the social decisions will maximise the social welfare which includes protection of individual's rights and social justice.

We need to know what it costs in rupee terms to finance the activities that will generate the nuclear capabilities described above. Similarly, it is also necessary to know what is a reasonable estimate of the benefits associated with that expenditure in terms of rupees. While it is easy to obtain reasonable estimates of what it costs to pursue the nuclear option, the estimated benefits depend on the threat perceptions and how effectively the outcomes of the

expenditure eliminate or reduce the severity of those threats. At one extreme, if the threat perception is purely a myth then the benefits are zero; at the other extreme, if the threat perception is real and certain then the benefits can be enormous, provided that we assume that these capabilities that we develop do serve as deterrent to such a threat. I shall share with you my perception that this assumption may be wrong. As I will argue later the nuclear option can also increase the threat of aggression from our neighbouring countries which may mean costs, in addition to the expenditure on the nuclear option, without yielding any benefits whatsoever.

While the rupee value of expenditure on the nuclear option is known with some degree of accuracy and certainty, the rupee value of the outcomes of that expenditure is not so tangible. These outcomes are not goods and services traded in a market-place having a rupee value. These outcomes will have greater value if there are threats of greater intensity and frequency, if the threats have greater certainty of occurring, and if the defence expenditure results in outcomes which will reduce the threats or reduce the probability of realising those threats. There are a few questions that we have to pose: (i) What are the threats from our neighbours? (ii) Is the nuclear option a deterrent to those threats, as it is made out to be? (iii) How is the nuclear option a deterrent to those threats? (iv) Are there other less expensive ways of diffusing those threats or dealing with them?

The threats are: (i) Border disputes and border encounters with our neighbours; (ii) terrorist activity supported by the enemies, such as what we are experiencing with the ISI of Pakistan; (iii) a traditional war of aggression from one of the neighbours, or from both of them jointly, which does not use the nuclear weapons; and (iv) a threat of first use of the nuclear weapons by one of the neighbours or from both. One might argue that the first three threats do not relate to the issue of using the nuclear option. I am assuming that one of the reasons we wish to follow the nuclear option is to create a perception among our adversaries that we are capable of using it and thus create a deterrence among them with regard to the first three threats as well.

These are potential threats. There are different probabilities with which these threats may be realised at any future point in time. The greater these probabilities the greater is the potential threat. The next question is how do we estimate the social cost of these threats. One way of estimating the total cost of these potential threats is to quantify the damage caused by them and put a rupee value on that damage. Since the threats are uncertain and occur with certain probabilities the estimated cost of damages will have a probability distribution. We would then be able to calculate the mean or average rupee value of the probability distribution of such damage. The mean or average cost of damage does not adequately distinguish between a colossal damage, albeit with a very small probability and an equivalent moderate damage with high probability. Sometimes it is not possible to identify the extent of damage and to estimate its rupee value. In that case one standard suggestion made by economists is to take as a lower bound of such cost the value of social goods and services that are foregone (the cost of the next best alternative).

Threat Perceptions

What does the nuclear option do to the threat perceptions? One might expect that pursuing the nuclear option will either reduce the intensity of the type of threats that were listed above, or it will reduce the probability of realising those threats. In either case the mean or average cost of the damage due to those threats is reduced. This reduction in the average cost of damages may be taken as the benefit associated with the pursuit of the nuclear option.

Most countries today assume that nuclear weapons will not actually be used by the governments of other countries. This is due to social, political, and economic ostracising which it entails from the comity of nations. It may only serve the purpose of creating an atmosphere of deterrence. In other words, one might say that the threat of the first use of nuclear weapons by any country has a very small probability. By pursuing the nuclear option we are only reducing marginally an already small probability of the first nuclear attack by our adversary. Hence the reduction in the average or mean or expected cost of damage which can be attributed to the nuclear option is likely to be very small. Ultimately the estimate of the benefits is purely an empirical issue that requires information on the extent of threats, their likelihood and the damages caused by them, both with and without the nuclear option. Unfortunately we have very limited or no information on these aspects.

One might even argue that exercising the nuclear option would worsen the already hostile attitude our neighbouring countries have towards us. Hence it might provoke them to use other less severe threats than a nuclear attack from our neighbours; the latter being not an alternative at all for reasons just described. While the nuclear option might reduce very marginally the threat associated with a nuclear attack, it might increase the threat of less severe attacks by a much greater degree. The net result could be an increase in the cost of damage than a decrease, as advocated.

The deterrent theory, which is often advanced for following the nuclear option, is based on a fallacious premise. It assumes that the threat perception is based on the present situation and it also assumes that while we follow a strategic decision our adversary does not have a counter strategy. Game theory and strategic behaviour constitute some of the most commonly used concepts in economic theory. As an economist I wish to apply these to the nuclear issue. If we take a strategic position we must grant our adversary also a strategic response. If we produce nuclear weapons we must assume that our adversaries also either produce or procure nuclear weapons of equivalent or superior quantity and quality. Hence our initiative in producing the nuclear weapons will undoubtedly trigger a nuclear arms response from our adversaries. This situation would work like a sequential or a dynamic game between us and our neighbours and lead to an arms race.

A country like Pakistan that cannot match India in its resources will have to depend on military support from other nations. The geopolitical situation in this region will thus be seriously altered. At a time when we need to reduce tension and promote co-operation between us and our neighbouring countries, instead of going in that direction we are following the

Table: Capital Costs of a Nuclear Weapons Programme

		Rs Crore
One reactor to produce plutonium		700
One missile production facility		500
Cost of 150 nuclear bombs of 15-20 kilo tonne capacity		600
Cost of missiles		4,025
55 Prithvis	385	
30 Agnis	1,500	
25 Agni -IIs	1,500	
16 Sagarikas	640	
Cost of fitting one IAF squadron		60
Cost of three nuclear submarines		12,000
Cost of C^3I		3,525
Cost of two satellites		2,000
Cost of radar, missiles, etc, to protect airbases/launch sites		5,000
Total		28,000

nuclear option. The consequences are quite clear in a world with only one superpower, after the dissolution of the USSR. We are prompting our neighbouring countries to either collude against us or to have an alliance with the superpower. This strategy is bound to isolate India from several countries which are looking for India's leadership in the non-aligned movement to restrain the use of power by the superpower. Instead of prompting the nuclear powers to follow the policy of nuclear disarmament, the Indian move is likely to isolate India, as it already has, with no change in the nuclear disarmament situation. Our country's position in the international context is likely to become weaker than stronger.

As an isolated country we have to depend on ourselves in this game of arms races. A poor country like ours cannot afford to devote increasing resources year after year for such activities at the expense of the growth of the real economy. It may be recalled that it is this kind of arms race and the diversion of resources to defence expenditure that had destroyed the USSR. Another major concern expressed by some industrially developed countries, such as the US, is that nuclear proliferation might make misuse of the nuclear weapons easy. This point must be taken seriously given the degree of international terrorism today. A country like ours which cannot catch an alleged outlaw Veerappan with the support of the police of two states and that of the border security force, may not be able to ensure the safety of nuclear weapons once they are created.

If our main objective is to reduce the potential of threats from our neighbouring countries there may be other alternative approaches available. We do not seem to have explored all the other alternatives. Transactions between neighbouring countries, whether such transactions are political, economic, social, or cultural could be based on co-operation or conflict. We may say that such transactions are outcomes of a game repeatedly played by these neighbouring countries. Economists have demonstrated that in repeated games of this nature it is quite often advantageous to play it co-operatively than non-co-operatively. It is also shown that the scope for co-operation increases if there are more transactions. Hence one of the options we should follow is to increase the co-operation between neighbouring countries and ours by increasing the economic, social and cultural transactions between us.

Finally there is another important aspect associated with the choice of the nuclear option: India had earned a name as a peace-loving country that was the abode of a Mahatma who preached 'Ahimsa'. India is also one of the founders of the principle of non-alignment. Should we lose such an identity with our decision to pursue the nuclear option? This is also a decision that was taken by the present government in secrecy without having a prior nationwide debate. By following the nuclear option we as a nation are earning a bad name of initiating nuclear proliferation among developing countries that cannot safeguard nuclear weapons from being misused by terrorists. Having seen what the nuclear bomb had done to thousands of people in Hiroshima and Nagasaki it is hard to understand how our country can adopt a policy of triggering the use of such weapons of mass destruction. One argument often presented is that the nuclear powers have such weapons and have not disarmed themselves. It does not call for further production of nuclear weapons; instead it calls for a move towards a peaceful pressure on those countries to seek nuclear disarmament. One must distinguish between the historical context in which such weapons were produced and are being stockpiled from any new moves to produce them. It is this distinction that underlies the Comprehensive Test Ban Treaty (CTBT) and Nuclear Proliferation Treaty (NPT).

Now let me return to the basic economic issues and present some rudimentary economic statistics. These estimates are based on those by a fellow economist C Rammanohar Reddy in a series of three articles published in *The Hindu*. It is estimated that in 1955-64 when China was quite active in building its nuclear capability it spent on its nuclear programme about US $28 billion (1996-97 prices). Of course as Rammanohar Reddy correctly states this expenditure was incurred by China when it developed the technology in isolation and when the base knowledge was still under-developed. In our case the cost could be much less. Further our space programme, which has produced Prithvi and Agni I and Agni II missiles already, incurs some of the cost for the delivery system, and hence these are what economists call sunk costs.

General K Sundarji states that a minimum deterrent effect will be achieved by an arsenal of 150 nuclear bombs, each of 15-20 kilo tonne capacity of the kind dropped on Hiroshima and Nagasaki, that could be delivered by the already existing aircraft and missiles. He puts the cost as Rs 2,760 crore in 1996-97 prices. This would be approximately US $ 0.7 billion (1996-97 prices), which is only two and a half per cent of what China spent in building its programme between 1955-64. But Sundarji's estimate did not include command, control, communication and intelligence system (C^3I) that is absolutely necessary for ensuring the deterrent effect. Nor did it consider using submarines for carrying the nuclear weapons. Brigadier Vijay K Nair gives an independent estimate of Rs 6,835 crore. This estimate includes C^3I and a nuclear submarine. This would be around US $ 1.7 billion, which is only about 6 per cent of China's expenditure on the programme spent between 1955-64 (1996-97 prices).

Rammanohar Reddy gives a detailed break-up of the estimate of capital costs of Indian nuclear weapons programme that can serve as a nuclear deterrent (see table). His estimate of capital cost in Rs 28,000 crore. This figure does not include the R and D cost for nuclear power generation capability that I would put at the top of the list of capabilities. But if one adds the operating costs, wages and salaries, fuel costs, transportation costs, R and D for C^3I, etc, this estimate rise go to Rs 40,000 crore to Rs 50,000 crore, over a period of 10 years, or about Rs 5,000 crore per year. This estimate does not take into account the hazards and environmental impact of the nuclear wastes. There is a recurring cost associated with safeguards against hazards. In addition one may assume that nuclear plants have a lifetime of about 100 years, and after that they have to be decommissioned ensuring safe disposal of nuclear material. This decommissioning of the nuclear plants involves some additional costs. It is suggested that these costs would be several times that of other costs. Even if one assumes that they are twice the other costs it would amount to Rs 1,00,000 crore. The annualised cost would be Rs 1,000 crore. Thus, the annual cost of the nuclear option is about Rs 6,000 crore.

How do these figures compare with other transparent numbers? Our country's gross domestic product (GDP), is of the order

of Rs 1.25 million crore (1996-97 prices). The annual additional defence expenditure is about one half of 1 per cent of our GDP. Our tax revenues are of the order of 10 per cent of our GDP. The additional defence expenditure is therefore of the order of 5 per cent of our tax revenue, which is already quite low and quite inadequate to even for the several important government programmes. Comparing the additional defence expenditure with the next best alternatives foregone, viz, expenditures on various social services, with Rs 6,000 crore one can run 15 lakh primary health centres, by spending that amount the government can have a two-fold increase in its expenditure on primary education and meet the entire cost of universal primary education.

To give another illustration. We have a foreign debt of US $ 90 billion. Assuming an average interest of 8 per cent per year the annual interest payments are about Rs 28,800 crore. The annual cost of the nuclear option is therefore a little more than one-fifth of this annual interest burden on our foreign debt. This is a very important comparison in the context of increasing trade deficit and increasing foreign debt. It is the imprudent handling of foreign exchange situation in the 1980s that resulted in the financial crisis of 1991. One may recall that during Indira Gandhi's regime as a political strategy the soft IMF loan was prematurely paid back in two years just prior to the general elections. This forced the government to borrow at higher commercial rates of interest. Rajiv Gandhi soon thereafter liberalised the economy allowing imports liberally when the exports did not register much growth. The increasing trade deficit and the high interest burden lead our country to a foreign exchange crisis in 1991. It is this crisis that made us dependent on the IMF and the World Bank which imposed conditions for giving loans. It is these conditions which almost eliminated our autonomy in choosing our economic policies. All this happened when our economy was doing very well internally with a two-digit growth rate. It is therefore very important that we manage our foreign exchange very carefully.

One must recognise the futility of pursuing an arms race when the country does not have enough resources. This is made amply evident by the arms race policy of former USSR and the US. The dissolution of the USSR was due to its failure to meet the basic needs of its people as result of diversion of sizeable resources to the arms race with the US. A country can compensate for its military weakness by making its economy strong. This is made evident by Japan's economic hold on the US economy. Let us put first things first and take care of our foreign exchange situation, primary health, primary education, and poverty alleviation before we gamble with a possibly futile nuclear programme.

Note

[Based on a talk delivered to an informal gathering of scientists at the Raman Research Institute, Bangalore on November 14, 1998. The author thanks Alladi Sitaram, Vinod Vyasulu, and the participants at the informal gathering for their comments. The author alone is responsible for any errors.]

1 The condition is that given any three alternatives there is a consensus on at least one of them as the least preferred, most preferred, or with median preference. Such a condition will be satisfied if people communicate with each other and show concern for each other. This situation may be expected to prevail in a good democracy

Impure Economics

C T Kurien

Economics as Ideology and Experience: Essays in Honour of Ashok Mitra edited by Deepak Nayyar; Frank Cass, London, 1998; pp xviii + 291, £ 19.50.

I

THIS volume consisting of a biographical sketch of Ashok Mitra by the editor, Deepak Nayyar and sixteen contributions by leading Indian economists and a couple of foreign economists is a fitting tribute to the man in whose honour it has been brought out. The volume was conceived and planned by Amit Bhaduri, Nirmal Kumar Chandra, N Krishnaji, Deepak Nayyar, Prabhat Patnaik and Krishna Raj. The biographical sketch concentrates on Ashok Mitra as an economist, but also touches upon his role as an administrator, parliamentarian, columnist, cricket enthusiast and a true friend to many, drawn from different walks of life. The contributions were referred and, as many of the contributors acknowledge, revised on the basis of the comments of the anonymous referees.

The reviewer has a problem, though, in dealing with a volume of this kind without an overall theme. I shall exercise the reviewer's liberty to reorder and reclassify the essays. I start with four of them which deal with specific topics. The rest will be grouped into three broad themes.

II

The opening essay by Prabhat Patnaik is an attempt to show that unemployment in underdeveloped countries is of a special kind, different from the three familiar types: the first arising from shortage of means of production; the second related to insufficiency of aggregate demand; and the third, resulting from rigidity of real wages. With the help of a model involving heterogeneous output, specificity of production processes including differential skills of workers, and specification of demand patterns, Patnaik shows that a kind of unemployment not explained by the above three can exist. The real life situation corresponding to it is said to be where goods produced by workers in an underdeveloped country (let us say hand woven cloth) cannot be consumed by the workers themselves while others in the country and consumers in other countries prefer a substitute (let us say mill produced cloth). Therefore, says Patnaik, the nature of this kind of unemployment is related to 'lifestyles', particularly, the desire of the well-to-do sections in underdeveloped countries to imitate the patterns of life prevailing in developed countries. This may be so. And yet, it is difficult to accept that this form of unemployment, even when it is widespread, has the theoretical generality that the other three types have. Be that as it may, how valid is Patnaik's claim that "this kind of unemployment has not figured in the economic literature"? To those of us for whom D R Gadgil's *The Industrial Evolution of India in Recent Times* was staple diet, it is not novel at all. "One of the most harmful effects of a foreign rule is the imposition on the conquered peoples of the ideals of the conquerors", noted Gadgil and went on to say, "the newly created Indian bourgeoisie showed itself during the latter half of the last century extremely ready to accept European standards and to pour scorn on everything Indian". Gadgil offered this as explanation of the decline of Indian handicrafts which, of course, led to the craftsmen remaining involuntarily unemployed and their equipment underutilised. And Gadgil wrote before Keynes put forward insufficiency of demand as the explanation for involuntary unemployment.

Amiya Kumar Bagchi's contribution is a discussion on rent-seeking, concentrating on rent-seeking by merchants, financiers and industrialists setting it in historical perspectives. Rent-seeking by these groups arise from the private monopolies they strive to establish. Modern TNCs which combine trade, industry and finance have an excellent opportunity to derive rent via their global operations. And in their operations they derive support from national governments and international agencies like IMF and World Bank which claim to be against rent-seeking by public enterprises. "For example", says Bagchi, "in India, the government has guaranteed a return of 16 per cent to foreign enterprises investing in the power sector ... Thus, not content with the rents generated through private monopolies, TNCs have found new vantage points for rent-seeking under a regime which ostensibly wants to abolish rent-seeking in public enterprises ..." (p 119).

Ranjit Sau's paper brings out the point that in an economy such as India's, which maintains several modes of production, it is necessary to have structural macro economics that explicitly recognises not only capitalists and workers, but other classes as well. Sau also sets up a model that deals with the relationship between industry and finance which provides insights into the complex relationships and cleavages among industrialists ordinary and monopolist, domestic and foreign.

Taking off from Ashok Mitra's pioneering work on class structure and terms of trade N Krishnaji and (the late) T N Krishnan have an interesting empirical analysis of how terms of trade influence the structure of demand. They come to the conclusion that in the Indian economy there is in operation what may be described as a food constraint on growth. "About a third of the population is not able to eat enough by any norm. For perhaps another third or more, the income elasticities of food expenditure tend to be high as a result of both quantitative and qualitative preference. The market for manufactures is then constrained by low levels of residual incomes left over after food needs are met"(p 136).

III

I turn now to those contributions which can be clubbed together under common themes. One of these themes, recognised in the volume itself is "The Comparative Dimension". It consists of Terence J Byres' essay on the need for the comparative method in the social sciences, Utsa Patnaik's comparison of India and China in terms of agrarian change and the contribution by Jayati Ghosh and Abhijit Sen comparing the international capital flows of an earlier era with the contemporary situation. Byres draws a distinction between the variable-oriented and case-oriented approaches to comparative studies. Examples of variable-oriented comparisons are the time series kind that Simon Kuznets' work illustrates, the cross-section variety that is used in inter-country comparisons by many UN agencies and inter-state comparisons by many scholars in our country itself. This approach has many strong points, especially the quantitative estimations and relationships that it helps in establishing. It has many limitations too because by identifying an entity in terms of its decomposed variables, it

abstracts from complexity and diversity in its search for the general. In one of its familiar versions, a particular argument is expounded and evidence is selectively marshalled from different instances to substantiate it. The case-oriented approach, a common instance of which is comparisons of two periods in historical research, can be more thorough in one sense, but it has its inherent limitations too. Byers suggests that though the usual practice is to use the experience of the past in the understanding of the present, the opposite also is possible. He observes that Ashok Mitra's work on inter-sectoral terms of trade is likely to be enlightening for those European historians who might wish to do serious work on this neglected aspect in European economic history.

Byers does not mention comparisons of economic systems as an instance of the case-oriented approach. But that is the focus of Utsa Patnaik's comparison of the patterns of agrarian change in China and India. She carefully documents the generally accepted position that radical land reforms in the post-revolutionary China enabled that country to mobilise the abundant supply of labour power and use it for capital formation in the rural areas. India, on the other hand, by failing to implement radical land reform has not been able to generate that kind of dynamism. The case-oriented approach is, thus, used to distinguish between the 'revolutionary' and the 'conservative' paths of economic transition and to insist upon the central role of institutions in the process of transformation. While the validity of these claims can be conceded, two questions have to be raised about the method itself. The first is what institutions are to be taken into account in such comparisons: only those that are directly related to the problem under discussion or a larger set? Whether the loss of life that occurred in China in the late fifties and early sixties has been exaggerated can be debated (On this Patnaik has some very pertinent observations on pp 249-50.) It can also be argued whether the famines that caused the loss of life and the series of bad harvests of the period can be attributed solely to the radical organisational shift to large-scale communes. But is it possible, as has been suggested by other scholars, that if the institutions of participatory democracy and a free press had existed in China, perhaps the enormous loss of life could have been avoided? Secondly, the comparison of two paths rests on the assumption that the "initial conditions" were similar. Patnaik maintains that there were "enough similarities in the initial conditions, despite all the differences, to make a meaningful comparison of the two countries' strategies of development" (p 223). But would the radical reorganisation of land ownership in China have been possible if the rural landlords had not been driven out during the civil war and the activities of the red army prior to the launching of the development strategy? And was there, in this sense, a major difference between the initial conditions of the two countries that makes it difficult to evaluate the differences in their strategies?

Similar questions about the comparative method arise also from the contribution of Ghosh and Sen. They do well to point out that the view that the large-scale international movement of capital is a recent phenomenon of the 1980s and 1990s is not valid. True, these two decades have witnessed a phenomenal increase in the global movement of capital compared to the immediate post second world war decades. However, as a proportion of the GNP of the industrial countries their capital exports have been less than 3 per cent in the past two decades compared to well over 3 per cent in many periods in the second half of the 19th century and a high 4.9 per cent in 1913 (p 266). But are the meaning and implications of capital movements the same if, as the two writers point out, there is a substantial growth of *gross* flows of capital across countries now? They point out other differences as well. Now there is no clearly defined 'leader' of the world economy in the sense in which Britain played the role during the years of the gold standard. Also, "while the explosion of finance in the late 19th century occurred in the context of stable and growing aggregate output and income in the industrial countries, high and rising investment rates and a general boom in world trade, the recent spurt in finance and capital market does not have such a favourable background" (p 270). Given these differences and many more that can be cited, the methodological question from a comparative study perspective is whether the recent spurt in international private capital flows can be, should be, treated as a qualitatively *new* phenomenon representing a departure from what happened in an earlier period. More boldly, does the present signify a *new phase* of capitalist development? Can the answer be given based on experience or does it belong to the realm of ideology?

IV

Papers by Nirmal K Chandra, C P Chandrasekhar and Amit Bhaduri deal with problems of former socialist regimes. Chandra's thesis is that the fall of socialist economies, of the Soviet Union in particular, was brought about by the "time bomb of consumer subsidies" (p 28). He points out that Marx in his *Critique of the Gotha Programme* had stated that in the first phase of communist society the individual producer receives back from society what he contributes to it after deductions have been made for the common satisfaction of needs such as schools, health services, etc. From this and the writings of Engels on the subject Chandra states that Marx and Engels did not favour increasing subsidies on food, clothing and housing during the transitional phase to communism. He points out that the extraordinary stability in food prices in the Soviet Union was a post-1965 phenomenon and that by the 1980s subsidies for food, housing and transportation claimed a very high proportion of Soviet expenditure. Chandra, however, points out that consumer subsidies alone could not have brought about the collapse of the Soviet system if other elements in the system had functioned well.

In what I find a fascinating essay, Chandrasekhar probes the problems of centralised planning which most socialist regimes had resorted to. He brings out some aspects which have not received sufficient attention so far. First, it was assumed that once private ownership of resources was abolished the entire economy can be treated as one big factory and could be managed on the basis of principles underlying the internal administration of factories. However, the despotic character of technology within capitalist factories as overlooked as also the fact that the inherent hierarchical nature of factory organisation would lead to excessive bureaucratisation. Second, the emphasis on the factory-society parallel ignored the fact that in capitalist societies an abundance of consumer goods for upper income groups was made possible by diverting resources from meeting the basic needs of the poorer sections. Socialist economies avoided this trade off initially, but once they got caught up with the desire to 'catch up' with capitalist countries in terms of the product profiles of the latter, it became difficult to follow the socialist principle of meeting basic necessities of all citizens and ensuring high levels of investment. Third, to the extent that socialist economies guaranteed free choice of occupations and a market for labour with difference in wages between different types of work, it became necessary to permit free market operations

for consumer goods also. Hence it was no longer easy to specify the areas of control of the state. Chandrasekhar concludes by saying: "Both theory and experience with socialism in practice suggest the assumption of the possibility of an omniscient state underlying the 'planning principle' is extreme. Once we do away with that assumption, however, we are left without an alternative structure of functioning institutions, in societies with social ownership. That is, even if we postulate a socialist economy as a planned economy, until we have specified the precise categories of decisions that are centrally planned, the institutions that would make decentralised decisions, and the fall-out of central decisions for the operational functioning of lower units of command, we have not fully specified the system. We are also still left with the problem that the extent and organisational form of decentralisation needs to be defined so as to avoid importing in full the instability and waste of capitalism" (pp 45-46). He is right also in affirming in the words of Maurice Dobb that only experience can decide the expedient extent of the one and the other.

Bhaduri tries to make more explicit the 'inner contradictions' of the system itself that led to the collapse of the socialist economies. Unlike capitalist accumulation, Bhaduri argues, socialist accumulation was based on a bureaucratic management of demand. The system "faced a double squeeze: real wage restraint was severe to finance investment accumulation and, at the same time, wage goods were absent or hopelessly scarce because of a bureaucracy-driven investment programme" (p 77). It may have worked or been accepted in the early stages, but over time it led to "a growing *separation* between bureaucratic central planners allocating investments and ordinary consumers generating the patterns of demand"(p 77). The system did not and could not correct this malaise and collapsed in the end. Bhaduri does not leave it at that. He goes on to say: "Without any independent self-correcting economic or political mechanism, extraneous to the Party structure – either in the form of a reasonably functioning market mechanism or in the form of political democracy of countervailing centres of power – the socialist experiment of creating a 'better society' could not have succeeded. It failed not because it made mistakes, but because doctrinaire rigidity ruled out serious attempts at correction" (p 79).

Chandra, Chandrasekhar and Bhaduri provide explanations for the failure of the socialist experiments of the past. Further research along these lines is vital for a proper understanding of what happened and to provide guidelines for the future.

V

I am bringing the remaining papers in the volume under the general theme of the role of the state in the economy and related issues. First there are papers that deal with particular aspects of the broad theme. Iqbal S Gulati points out the magnitude and implications of international public borrowing stating that even during the 1980s when both internal and external public debt in India increased rather quickly, it was the internal debt that was racing ahead. Gulati also makes the point that the real problem, however, is not that internal debt is high and rising, but that increasingly government funds are being deployed unproductively.

The late Pramit Chaudhuri has a critical appraisal of the role of the state in poverty eradication. On programmes of employment generation he points out that only if additional employment is created at the lower end of the wage-skills spectrum will such programmes have any dent on poverty and that 'growth-mediated' and 'support-mediated' policies are not alternatives, but have to work hand-in-hand. Chaudhuri also warns that it is difficult to think of the state as working to empower the poor, because that will be to participate in the diminution of its own powers.

With inside experience of the planning process A Vaidyanathan makes an evaluation of planning in the country indicating the distinctive features of Indian planning, especially its intimate links with the political environment. Under the changed economic and political conditions Vaidyanathan recommends that the Planning Commission should become "a forum for strategic thinking, a medium for getting the relevant expertise from concerned enterprises, universities, and laboratories together to examine the problems and come up with solutions, and an interlocutor with the government to establish appropriate policies and institutional arrangements" (pp 196-97).

Rehman Sobhan makes a survey of public sector enterprises in the third world and the prevailing mood of privatisation. As against the widely prevalent notion that the establishment of public sector enterprises in third world countries was influenced by socialist doctrines, Sobhan claims that in the context of decolonisation it was the need to bring foreign enterprises owned by non-indigenous bourgeoisie under national management that led to the formation of public enterprises: it was essentially a process of nationalisation in the literal sense of the word. These enterprises that, thus, came up in response to practical exigencies have, of late, come under the ideological onslaught of the IMF and the World Bank committed to the cult of privatisation. The ideological pressure is accompanied by the opportunity that a new coalition of the present ruling classes and the bureaucracy finds to take over state-created assets on terms that the coalition is now in a position to dictate.

Through a study of the historical evolution of markets and a critical evaluation of the performance of 'market economies', Arun Ghosh examines the role of governance in economies. He shows that whatever may be the claims put forward in theory that markets ensure efficiency, the actual performance of market economies is characterised by enormous waste of resources. Ghosh then moves on to show that 'market economies' (as capitalist economies are frequently referred to in popular writings) do not function on the basis of their own laws and that they cannot function without a central authority that the state represents. "The nature of the market system is inextricably linked to the nature of the state", he argues (p 61).

Although this position is reflected in the writings of others in this volume (see, in particular, Bhaduri, p 78) nobody really develops the theme to bring out the centrality of the state in a modern economy (a modern *capitalist* economy) with roles much more than as a regulator of markets. This may be because when economists write qua economists, they tend to treat the state as an external entity as standard conceptualisations of the economy have no place for the state *within* it. In the context of the evolution of the theory of international trade Deepak Nayyar brings out the consequences of economic analysis that leaves out the state and the political processes that the state in one sense epitomises. Going back to the writings of Smith and Ricardo on international trade Nayyar shows that their concerns did not lie in abstract economic principles. They were motivated by a strong desire to challenge the political dominance of mercantilist ideology. Hence they viewed international trade not merely as an expression of comparative advantage, but in terms of its impact on income distribution, capital accumulation and economic growth. Subsequent economic theorising about international trade began to separate the economics from the politics. It is not necessary to go into the history of this divorce

proceedings. We only need to note that neo-classical economic theory ratified the divorce, cleansed economics from politics, made the state an external intruder and produced a corpus of economics pure and simple – perhaps more simple than pure.

In international trade theory this has meant, for instance, that while the cross-border movements of goods and capital are said to be governed by economic principles, the movement of labour is considered to be regulated by the laws of the state. Capital now claims the right to move freely across national boundaries as a matter of economic necessity, but workers come under regulations of various sorts if they try to move from one country to another. The former comes under economics and the theory of international trade; the latter is treated as migration and is studied by the less advanced disciplines! In such a situation the interactive causation between international trade and international migration, which may run in both direction, remains unexplored, observes Nayyar.

Ashok Mitra the economist would have nothing to do with such economics removed from experience for it readily becomes mere ideology and not a tool to analyse real life problems. This collection of essays in his honour would have been more complete if it had a contribution dealing directly with the divorce of economics from politics and its contemporary consequences.

Consumption, Poverty and Environment

Sanjeev Prakash

Human Development Report 1998, published for UNDP by Oxford University Press, New Delhi, 1998; pp 228, Rs 375.

SINCE UNDP's annual *Human Development Report* (HDR) was initiated in 1990, it has generated a valuable, critical perspective of the conditions required for a just, sustainable and human-centred development process. Successive HDRs have laid particular emphasis on policies and institutions to address the condition of the most disempowered, marginalised and impoverished groups within nations and in the world as a whole. In offering their characteristically powerful critique of currently influential development policies, particularly when measured against the tasks of fulfilling objectives of universal primary education, equitable economic opportunity, basic health, popular participation, gender equality and poverty eradication, as well as in their continuing stress on the potential of informed and well-directed political action, the HDRs have been marked as much by a spirit of conceptual clarity and incisiveness as by a canny appreciation of the value of salience in political discourse.

In achieving what is doubtless a difficult balance the HDR authors have had to tread a fine line between the often competing claims of conceptual rigour and empirical complexity, ivory tower idealism and pragmatic realism, universal acceptability and cultural particularism. Most usually, however, this balance has been achieved with great adroitness and tact.

The theme of this year's HDR is global patterns of consumption in relation to human development. In comparison to earlier years this year's report seems to have ventured into more uncertain ground. Though this may partly be because many aspects of its principal theme remain spiritedly contested within the natural and social sciences, this year the authors also seem to have fewer original ideas to offer, an analysis that is on the whole less clear and penetrating, and policy prescriptions that are sometimes too general and present considerable difficulties for adaptation into viable instruments for economic policy and law in comparison with earlier years.

Given the nature of the theme of this year's HDR, it would be particularly valuable to have an insightful analytical synthesis at this juncture. Studies of consumption, its driving forces, distribution, natural, institutional and technological sources, social and environmental impacts, as well as its implications for human development, constitute a complex, transdisciplinary and challenging range of concerns into which it would be particularly valuable to bring some order, clarity and practicality.

This year's HDR authors have achieved somewhat less than this. Their attempt to arrive at a theoretical synthesis of consumption, the environment and human development suffers from a lack of the analytical rigour and sharpness evident in previous HDRs. It also seems constrained by passing references to what are clearly central concerns given the issue of patterns of global consumption, and by a limited empirical base that excludes key studies and conceptual issues which would have revealed important new dimensions of the subject. I will restrict myself to two or three areas in which these omissions and contradictions seem to be most acute.

Admittedly, disciplinary perspectives on human consumption are markedly divergent: it is a long way from the rational, individualist, utility-maximising actor of neoclassical economics to the socially embedded actor for whom consumption is a principal means of establishing social relations, identity and status, a view that emerges from recent work in the social sciences. Attempts to analyse or reconcile these divergences remain rare but critical.[1] The HDRs have always stressed the importance of human functionings and capabilities in relation to socially contexted goals, as well as the crucial role of public investment and social institutions in enhancing the level of human welfare and the human development index (this also applies to various other indices that have been proposed in the previous reports, such as the gender development index or the human poverty index). Given this range of concerns, one would assume that a concomitant degree of attention would be paid to broader, socially contexted views of consumption and environment pollution that have emerged from recent theoretical and empirical work.

Social scientists like Mary Douglas and population-environment modellers such as David Coleman as well as others have argued that because human aspirations everywhere focus on the symbolic and the prestigious, consumption levels are generally higher and maximum population numbers below the physiological limits in nearly all societies. This condition makes models of human consumption and environmental harm more complex and multi-dimensional (for instance, due to asymmetries in equity, technology, and trade, and collective or cultural norms) than simple, linear models are capable of treating.[2] Yet there is little treatment in this year's HDR of variations in interdependent utility functions in different cultural and normative settings, or of the social and institutional limits to consumption and environmental stress that are critical in this regard, apart only from passing mention of Veblen's idea of conspicuous consumption and one excellent passage on the exclusionary effects of social inequality and asymmetric consumption.[3]

Incomplete View of Poverty and Environment Linkages

Such omissions seem particularly pronounced when it comes to the analysis of interlinkages between poverty and

environment. Broadly, the authors propose (over pages 66 to 83) the dominant 'downward spiral' view, in which environmental degradation increases poverty which in turn intensifies environmental degradation. This view is derived principally from works of various western authors who tend to take a macro-level systems view of such issues.[4] Such a view is also consistent with the 'bell-curve' suggested as a general indicator of the relationship between income per capita and environmental degradation by the World Bank in 1992. In this view, increases in income first lead to greater environmental degradation but if sustained ultimately lead to diminishing environmental impact.[5]

It is important in this context to clarify certain key definitions. The bell-curve relationship may be accurate when the degradation specified is an index of industrial effluents, but it is false when applied to the natural resources that sustain poor rural communities in most parts of the world, or when an aggregate of greenhouse gas emissions are concerned. As economists including Kenneth Arrow and Partha Dasgupta have noted, such generalisations are misleading.[6] Indeed, Dasgupta comments that the bell-curve idea is "tantamount to saying that there is trade-off between the environment and income in the short run but in the long run this trade-off disappears". He also argues that the relationship between income and environment degradation depends on how income is measured; it will not resemble a bell-curve when income is taken to mean NNP per capita where the shadow value for the depreciation of fixed capital includes depreciation of both manufactured and natural capital.

Significantly, a wide range of empirical studies present a far more complex picture of the relationship between poverty and the environment. In this context it is useful to distinguish between different types of poverty. In cases of rural subsistence poverty, environmental degradation can contribute to poverty by decreasing the supply of biomass resources required for subsistence. However, the evidence that this situation invariably creates further degradation of the environment is far from convincing. For instance, a series of empirical studies by Vijay Jagannathan and others have suggested that rather than poverty it is features of the economic system such as market incentive structures, the pattern of public investments in infrastructure, and macro-economic factors that are the root causes of land, water and environmental degradation in areas of widespread poverty.[7] These and other authors also found little evidence that the poor in the rural areas they studied possessed either the capital or technology necessary for extensive degradation of the environment.

Much depends on the coping strategies of the poor, which are in turn related to the options available to them, prevailing policies and social factors. These factors can include the presence of social capital that underlie the formation of institutions for collective action to regulate use of local environmental resources. Karl Polanyi long ago pointed out that a moral economy comprising essentially of norms of reciprocity and an entitlement to subsistence, both key aspects of social capital in rural subsistence contexts, has operated in most subsistence societies through history.[8] It is possible to think of poor people as lacking certain kinds of resources and capital but not others; for instance, a lack of financial and human capital does not invariably mean that natural and social capital are also lacking to a similar degree.[9]

Based on the empirical evidence available, David Pearce and Jeremy Warford conclude that the presence of poverty does not mean that environmental degradation will follow as a result, that rather than being an underlying cause of degradation, poverty is properly seen an intermediate expression of other factors responsible for degradation.[10] They further suggest that in the case of rural subsistence communities as well as other kinds of poor communities, poverty is characterised by low resilience to shocks and risks caused by macro-economic factors or natural disasters. If these underlying shocks and causes are absent, poverty will persist but without causing environmental degradation.

The report does discuss this low resilience to risks and shocks at any length, and suggests that the poor have an inherently short time horizon with respect to the use of natural resources, thus unfortunately confirming the view that varying approaches have simply been gathered ad hoc from different sources without attempting the difficult task of constructing a coherent and rigorous analytical framework. A short time horizon suggests a rate of discount for the value of environmental resources that the income-poor do not display when risks are managed and mitigated, either through collective mechanisms or successful policy intervention. There is little evidence to suggest that poor people have uniformly short time horizons in diverse risk environments, nor that their average time horizon is very much lower than for other groups facing high risks and shocks from policy failure or other causes.

Policy Implications

Critical to the discussion is that each view of the poverty-environment relationship has very different policy imperatives. If poverty is always a root cause of environmental degradation, then little else is helpful apart from standard poverty alleviation measures. On the other hand, if the real cause of degradation is chiefly the low resilience of poor people to shocks and risks, then a broad range of other measures including enabling policies to encourage natural resource management by local institutions, the provision of soft credit particularly during periods of high risk (for instance, due to macro-economic change and natural disasters), as well as the supply of cheap fuel, clean drinking water and other environmental entitlements are called for. It should be noted that research to further our understanding of these issues is still weak and underdeveloped. However, the second approach also raises intriguing questions for future research; for instance, particularly useful would be studies that tell us how the presence of micro credit institutions and the provision of credit to rural poor communities during periods of high risk have affected the short-term utilisation and degradation of environmental resources.[11]

The report extensively analyses the unequal burden that various forms of environmental degradation, including water pollution, industrial hazards, solid waste, soil degradation, deforestation, etc, impose on poor people and in this as well as in many other areas it displays an active and urgent concern for the interest of the poor. This is indeed a valuable contribution in analytical and policy terms. Unfortunately, its conceptual framework dictates that the poor are seen as largely passive, fatalist and unwitting progenitors of environmental degradation rather than dynamic actors who (like other human beings) must balance conflicting interests and act on the limited and continually changing range of options available to them.

There are other generalisations that seem out of place in what one expects in an impeccably researched document. For instance, on page 79 the report suggests that the impacts of global warming in terms of the distribution of rainfall will accentuate current shortages in the developing countries,

> the effects [of global warming] will be distributed in a way that will generally

worsen existing inequalities and patterns of poverty and hunger...yields are expected to fall in Africa, south Asia and Latin America, where most of the world's poor and hungry live...It is the same story for rainfall. By and large the haves, who get enough now, are expected to get more, while the have nots will get less. Water shortages are expected to increase, with sub-Saharan Africa, the Arab States, south Asia and Europe particularly affected.

This view seems to contradict most models of climate and general circulation. Studies of the south Asian monsoon reveal that it is driven by two principal forcing mechanisms, differential land-ocean sensible heating and tropospheric latent heating, both of which are based on prevalent solar radiation patterns. In addition, anomalously heavy snow cover over the Himalaya affecting Asian continental albedo and other factors have been identified with a weakened or delayed-onset of the monsoon.[12] Though many uncertainties remain, in accordance with these studies most recent atmospheric models show increased precipitation from the south Asian monsoon over most of its area of influence due to higher average atmospheric temperatures and the increased effects of solar radiation. As well, some modellers anticipate an increase in stochastic local variations of rainfall such as those in the Uttar Pradesh Hills and around the Gorakhpur region of east Uttar Pradesh this year.

On the whole and despite these inconsistencies this year's report is a welcome addition to the series of HDRs. It is particularly to be welcomed because for the first time it attempts to make a comprehensive critique of the impacts of human society's skewed consumption patterns on the global natural resource base, and of the implications of all these for human development. It is to be hoped that future reports in the series will further develop these concerns and thus play a greater role in identifying policies and practices suitable for creating sustainable patterns of consumption in industrial and developing countries.

Notes

1 On this see, for instance, Mary Douglas et al: 'Human Needs and Wants' in S Rayner and E Malone (eds), *Human Choice and Climate Change*, Volume I: *The Societal Framework*, Battelle Press, Columbus, Ohio, 1998; Mary Douglas and Baron Isherwood, *The World of Goods: Towards an Anthropology of Consumption*, Penguin, Harmondsworth, 1980, and Desmond McNeill, 'Consumption Patterns. Towards an Alternative Economic Approach', Working Paper 92 1, Centre for Environment and Development, University of Oslo, Oslo, 1992.

2 Mary Douglas, 'Population Control in Primitive Groups', *British Journal of Sociology*, 17:263-73, 1966; and James Coleman, 'Population Regulation: A Long-range View' in D Coleman and R Schofield (eds), *The State of Population Theory*, Basil Blackwell, London, 1986.

3 *Human Development Report 1998*, published for UNDP by Oxford University Press, Delhi, 1998; at p 39 and p 45.

4 For example, see Alan Durning, 'Poverty and the Environment: Reversing the Downward Spiral', Worldwatch Paper 92, Worldwatch Institute, Washington, DC, 1989; and Steven Mink, 'Poverty, Population and the Environment', World Bank Discussion Paper 189, The World Bank, Washington, DC, 1993.

5 The World Bank, *World Development Report: Development and the Environment*, The World Bank, Washington, DC, 1992.

6 Kenneth Arrow et al, 'Economic Growth, Carrying Capacity and the Environment', *Ecological Economics*, 15: 91-95, 1995; and Partha Dasgupta, 'Poverty and the Environment. Is There a Trade-Off?' in Campigilio et al (eds), *The Environment after Rio: International Law and Economics*, Martinus Nijhoff/Graham and Trotman, The Hague/London, 1994.

7 See N V Jagannathan, 'Poverty, Public Policies and the Environment', Working Paper 24, The World Bank, Washington, DC, 1989, N V Jagannathan, 'Poverty-Environment Linkages: Case Study in West Java', Working Paper 1990-98, The World Bank, Environment Department, Washington, DC, 1990, as also N V Jagannathan et al, 'Poverty-Environment Linkages in Nigeria: Issues for Research', Working Paper 1990-97, The World Bank, Washington, DC, 1990, and N V Jagannathan et al, 'Applications of Geographical Information Systems in Economic Analysis: A Case Study of Uganda', Working Paper 27, The World Bank, Environment Department, Washington, DC, 1990. Though the *Human Development Report* rightly dismisses the view that resource subsidies help the poor as a myth and stresses that nearly half of all subsidies in the world go to agriculture in the OECD countries, it fails to engage another important dimension suggested by these studies, viz, the impacts of skewed subsidies and incentives on the environment.

8 Karl Polanyi, *The Great Transformation*, Beacon Press, Boston, 1957; for further explorations of these ideas, see also James Scott, *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia*, Yale University Press, New Haven, Connecticut, 1976; and Sanjeev Prakash, 'Fairness, Social Capital and the Commons' in M Goldman (ed), *Privatising Nature: Political Struggles for the Global Commons*, Pluto Press, London, 1998

9 For a discussion of the implications of these different types of capital, see Sanjeev Prakash, 'Poverty-Environment Linkages in Mountains and Uplands. Reflections on the Poverty Trap Thesis', Creed Working Paper No 12, International Institute for Environment and Development, London, 1997

10 D Pearce and J Warford, *World without End: Economics, Environment and Sustainable Development*, published for the World Bank by Oxford University Press, New York/Oxford, 1993

11 For a fuller discussion of related literature and policy implications, see Sanjeev Prakash, 'Poverty-Environment Linkages in Mountains and Uplands: Reflections on the Poverty Trap Thesis', op cit.

12 For an engrossing account of monsoonal variations over the last 3,50,000 years based on an investigation of Arabian Sea sediments as well as scientific understanding of the principal forcing mechanisms of the monsoon, see Steven Clemens et al, 'Forcing Mechanisms of the Indian Ocean Monsoon' *Nature*, 353:720-25

Marxism and International Law
A Contemporary Analysis

B S Chimni

Changes in international law over the past two decades have made it an instrument for safeguarding transnational capital. International law today creates and congeals inequities in the international system. It reflects the domination of bourgeoisie which profits at the expense of working classes and disadvantaged groups in both the developed and developing countries. This article attempts to fill the gap left by Marxists' neglect of the study of international law. It calls for an international legal strategy that would form an integral part of a transnational counter-hegemonic project.

I
Introduction

INTERNATIONAL law is today playing an unprecedented role in creating and congealing inequities in the international system. The period after the second world war has witnessed the exponential growth of international law [1] No longer confined to questions of war and peace or diplomacy, international law has, on the one hand, come to govern the use of oceans and outer space, and on the other, regulate core aspects of national economic, social, and cultural life. Recent years in particular have seen the adoption of a network of laws which seek to establish the legal and institutional framework favourable to the accumulation of capital in the era of globalisation.

Generally speaking, three overlapping features can be said to mark the growth of international law in the last two decades. First, it is the principal instrument through which the rule of private property is being extended in the world economy. Second, it is the means through which the rights of transnational capital are being safeguarded, among other things, by prescribing uniform global standards – ignoring the phenomenon of uneven development – in key areas such as technology and foreign investment. Third, it guarantees the observance of these standards through endowing international institutions with the means to enforce them.

But despite the critical role international law has come to play in building and sustaining the contemporary international system Marxists have entirely neglected its study.[2] While an attempt was made in the former Soviet Union to articulate a Marxist approach to international law, its content was dictated less by Marxism-Leninism than by the need to rationalise Soviet foreign policy.[3] The principal task of Soviet international lawyers was seen as providing post facto justifications for the acts of omission and commission of the state in its external relations. No serious effort was undertaken to engage with bourgeois international legal scholarship in order to highlight the distinctive nature of the Marxist approach. Consequently, the field of international law still represents a wasteland insofar as Marxism is concerned. In this essay we make a preliminary attempt to fill the gap in the literature by reflecting on the condition of international law and institutions at the end of the twentieth century. However, the paper opens with a few theoretical considerations on the subject of historical materialism and international law.

II
Historical Materialism and International Law

The statement of a Marxist approach in any area of social science usually involves reference to, and exposition of, the relevant texts of Marx, Engels and Lenin. In the case of international law this is ruled out for the simple reason that they never directly addressed the subject. Instead, what follows is an attempt to apply the insights of Marxist methodology and sociology to the field of international law and institutions.

Four interrelated features may be said to characterise bourgeois international law writings. First, they offer a formal and technical definition of international law as comprising norms which govern the relations between states.[4] Bourgeois writings tend to study the phenomenon of international law in abstraction from international society, ignoring its specific features in various phases of history, its social content, and its corresponding forms. Second, bourgeois writers proceed on the assumption that the state stands above particular groups, interests and classes within a nation state. A key role of the state is said to be to regulate the conflicts between them in order to realise 'national interests' [Miliband 1977:66]. Together, these two assumptions facilitate the portrayal of international law as a neutral device which stands above states and classes, a depiction clearly belied by the history of international law and institutions. Albeit, the class content of modern international law has undergone transformation over the last three centuries of its existence. Third, bourgeois scholarship, like the dominant realist tradition in international relations, "is premised on the recognition of a fundamental disjuncture between internal political life which is carried on under the co-ordinating and pacifying sovereignty of the state, and external politics, which is governed by the irresistible logic of anarchy".[5] This makes it ignore the links between the internal organisation of a state and its external policies which it hopes to write into international law. Fourth, bourgeois writings fail to recognise the supranational character of capitalism and conceive the interstate system as a relationship between states which is independent of the functioning of the capitalist world economy.

In contrast to the approach of bourgeois scholarship four general overlapping propositions constitute the matrix within which a Marxist approach to international law is to be articulated. First, a Marxist approach to international law is inextricably related to its theory of international relations whose essence is in the final analysis determined by the manner in which states are internally organised. In the words of Marx and Engels (1976:38), "the relations of different nations among themselves depend upon the extent to which each has developed its productive forces, the division of labour and internal intercourse". Second, it follows, the foreign policy of a state is integrally linked to its domestic policy and is articulated and executed in the matrix of a specific socio-economic formation based on a definite and dominant mode of production. Of course in turn, as Gramsci noted (1971: 182), "international relations intertwine with these internal relations of nation-states, creating new, unique and historically

concrete combinations". Third, it rejects the abstract and vacuous concept of 'national interest' and contends that the state in its external relations does not seek to realise 'national interests' but rather the interests of particular groups and classes. Fourth, it does not view the contemporary international system as a mere sum of its parts but as possessing a distinct identity created by the supranational character of capitalism which is rooted in a world market and an international division of labour which together constitute the world economy.[6] Together these propositions point towards a perception of international law and institutions as a device which serves sectional global interests. The history of international law bears out this understanding.

The evolution and growth of modern international law is bound with the different phases of global capitalism. It is thus no accident that the different phases in the historical evolution of international law match the evolution of the world economy. In lieu of the fact that "capitalism from the very beginning has been imperialist" [Patnaik 1997:183], The history of the world economy may be divided into the following phases:

(1) 1600-1760	Old colonialism
(2) 1760-1875	New colonialism
(3) 1875-1945	Imperialism
(4) 1945-	Neo-colonialism

It is interesting that scholars of international law have arrived at the same break-up from a study of international legal sources. For example, Ian Brownlie (1984: 357-70) of Oxford University mentions the following phases: 1648-1750, 1750-1850, 1850-1950, and 1950-.

The different phases of the world economy yield appropriate international legal superstructures which can be classified thus:

(1) 1600-1760: Old colonialism – Transition from feudal to bourgeois international law.
(2) 1760-1875: New colonialism – Bourgeois (colonial) international law.
(3) 1875-1945: Imperialism – Bourgeois (imperialist) international law.
(4) 1945- : Neo-colonialism – Bourgeois democratic international law.[7]

Two clarifications are in order here. First, each of the phases of international law which has been identified is not an undifferentiated whole. For example, the neo-colonial period, dating from 1945, has seen both a progressive phase – a period which saw the decolonisation process unfold and the adoption of texts such as the Programme and Declaration of Action on the New International Economic Order (NIEO) and the Charter of Economic Rights and Duties of States (CERDS) - and a regressive phase dating from 1975. It is fascinating that the conclusions from a review of legal materials again coincide with that of dependency scholars like Samir Amin (1994:106) who also identifies 1975 as the turning point in that the third world returned to playing a comprador role abandoning bourgeois nationalist projects.[8] The year also saw the defeat of the upward trend in resistance in the advanced capitalist world which started in France in 1968 [Callinicos 1996: PE-11]. Likewise, beginning with the subversion of the Allende regime in Chile, repressive states in the third world, with the backing of imperialism, launched a fierce attack against working class movements [for a detailed review see Petras and Vieux 1994: 1-34]. It is this setback which facilitated the move from nationalism to pragmatism.[9] The regressive phase has itself seen, since the early 1980s, the restructuring of international law and institutions to facilitate the globalisation process.

Second, in stating that the different phases of the world economy have yielded corresponding superstructures of international law the idea is not to offer a deterministic and unidirectional interpretation of the evolution and growth of international law. While it does suggest that international economic relations have in crucial ways shaped the international legal system it does not contend either that the particular content and form it assumes is directly determined by it or that it does not in turn influence processes and events in international affairs. The Marxist categories of base and superstructure do not allow this complex reality to be captured. Three points may be made in relation to the contemporary international legal system.

First, productive relations regulated by law are in part meaningful only in terms of their definition in law. Marx himself stressed the fact that the property relation stands in such close contact with the existing relations of production that it "is but a legal expression for the same thing" [Pashukanis 1978:91]. In the case of international law the regulation of productive relations is, it is true, mediated by internal law. But it would be a mistake for this reason to represent all international law as ideology for it can directly control the content of internal law.[10]

Second, the international legal system possesses its own internal structure and dynamics which shapes its content and discourse.[11] It develops, for example, only through certain recognised 'sources of international law'.[12] The particular form international law thus assumes defines its boundaries; anything falling outside it is designated as non-law. Its distinctive nature has served to sustain the status quo and prevent the substantive transformation of the content of international law in favour of third world states.[13] For example, it has allowed near unanimous resolutions repeatedly passed by the UN General Assembly on restructuring international economic relations to be designated as 'soft law' since resolutions of international institutions are, among other things, not listed as a source of international law [Bedjaoui 1979]. Thus, as Bedjaoui (1979:99) has noted, "only the form of a legal concept is considered, while its content – the social reality it is supposed to express – is lost sight of".[14] The specific characteristics of its form also give it the appearance of neutrality. For instance, treaties are in the contemporary international system arrived at between parties who, vide the principle of state sovereignty, are equal in the eyes of international law. This principle of formal equality tends to automatically inject an international agreement with the elements of fairness and equity. Whereas, in reality the substantive inequality of parties almost always shapes the content of the agreement.[15]

Third, once international legal rules are adopted they possess a degree of autonomy from the states which have agreed upon them. While power plays a crucial role in shaping the content of the law, it imposes serious constraints on the behaviour of states once it comes into existence. A whole range of international (and national) mechanisms are in place to compel compliance with international obligations. The task of international institutions set up to ensure observance of rules is not the defence of the interests of individual powerful states but rather to safeguard the interests of a coalition of dominant global social forces and states. Thus, even the most powerful actor in the international system has to justify its actions with reference to international law. The fear of undermining the legitimacy of the international legal system through suggesting at all times that there is one law for the powerful and another for the weak also refrains dominant states from openly flouting the authority of international law and institutions. While such a dual structure characterised colonial and imperialist international law its open assertion is no longer acceptable. To put it differently, the idea of rule of law is not a vacuous one in the contemporary international system. It is not merely an ideological device which is manipulated by powerful states to their advantage. It has real significance. In this regard it is often forgotten that the idea of rule of law has come to be embedded in the international system through the historic struggles of colonial peoples for independence as also democratic forces within the former metropolitan countries. To dismiss the idea of rule of law then is to belittle these struggles and to fail to understand that it was far from being the

reality for centuries in the sphere of international relations. Of course, it would be equally mistaken to forget that international law and institutions serve the interests of the dominant social classes and states in the international system. Formal equality in it goes hand in hand with material inequality, and democratic principles and norms with neo-colonialism. In this essay it is this latter dimension of international law which is elaborated. In the sections to follow we review, at both the economic and political levels, the recent developments in international law and institutions which manifest the policies of neo-colonialism in the era of globalisation. However, for a correct portrayal of international law, and in order to avoid legal nihilism, both the aspects need to be borne in mind.

III
Globalisation and International Law-I

International law and institutions are today being transformed to facilitate the process of globalisation. Globalisation may be said to refer "to the shift of the principal venue of capital accumulation from the nation-state to the global arena" [Teeple 1997:15].[16] There is, as Teeple points out, "an historical parallel to the present shift":

> The development of national forms of capital in the 18th and 19th centuries required the destruction of local and regional jurisdictions. Numerous differences in laws, standards, currencies, weights and measures, taxes, customs duties, political and religious rights and privileges made trade and commerce over a large geographic area extremely difficult. Just as these barriers to the expansion of capital had to be overcome to make the modern nation-state, so today the systems of governance in the nation-state have to be dismantled in order to remove the barriers to accumulation for global corporations. It follows that laws, regulations, standards, and governing agencies since World War II have been and continue to be reconstituted at the global level [Teeple 1997:16].

Since the early 1980s, the advanced capitalist world has, under the guidance of the hegemonic transnationalised fractions of its national bourgeoisies, and with the assistance of the transnationalised fractions of national capital in the third world, pushed through a series of changes in international economic law which lay the legal foundation for capital accumulation in the era of globalisation [Robinson 1996:13-31]. These changes appear to have two principal objectives: (i) to extend and deepen worldwide the rule of capital through the removal of 'local' impediments; and (ii) to dismantle international laws of distribution which are based on the principle of market intervention. We identify below the different measures which have been taken in the world of international law to translate these objectives into reality.

(A) Extending and Deepening the Reign of Capital

A series of developments in the past two decades have sought to deepen and extend the reign of capital.

First, reference may be made to the privatisation of the public sector in the third world. This objective is being achieved through the instrument of international monetary law which legitimises and enforces conditionalities imposed by international financial institutions.[17] As has been pointed out, "forced privatisation was the standard feature of all structural adjustment programmes" [Hoogvelt 1997: 138,172]. By 1992 more than 80 countries around the world had privatised some 6,800 previously state-owned enterprises, mostly monopoly suppliers of essential public services like water, electricity, or telephones [Hoogvelt 1997:138].[18]

Second, a growing network of international laws seek to free transnational capital of all spatial and temporal constraints. The trend towards strengthening the rights of foreign capital, initiated in the mid-1970s (the move from nationalism to pragmatism), continues unabated. The concerns of transnational capital have been met through the establishment of a Multilateral Investment Guarantee Agency (MIGA)[19] and through concluding bilateral investment protection treaties (BITS) between the industrialised and the third world countries.[20] By 1996 more than 1,000 BITS had been concluded, mostly between the industrialised world and the third world countries [Schrijver 1997:191]. More recently, there have been the agreement on Trade Related Investment Measures (TRIMs) and the General Agreement on Trade in Services (GATS) adopted as a part of the GATT Final Act of the Uruguay Round of Trade Negotiations (hereafter the 'Final Act'). If these texts are examined in conjunction with the World Bank Guidelines on Foreign Investment (1992)[21] and the proposed OECD multilateral agreement on investment (MAI), the basis on which a global MAI is to be negotiated in the World Trade Organisation (WTO),[22] it becomes clear that the trend is towards removing all fetters on the entry, establishment and operations of capital. This is confirmed further by the September 1997 statement of the IMF Interim Committee – issued at the behest of what Bhagwati has called the 'Treasury-Wall Street-IMF Complex' – endorsing a move towards capital account convertibility despite all evidence showing the grave consequences for the economies embracing it (ibid). This is in contrast with original obligations contained in the 1944 Articles of Agreement which called for the "avoidance of restrictions on payments for current transactions" [Bhagwati 1998: 7-12]. What is of significance is that while the noted texts confer or hope to bestow a number of rights on transnational capital they impose no corresponding duties on them. Indeed, the Draft Code of Conduct on Transnational Corporations which imposed certain duties – respect for host country goals, transparency, respect for environment, etc – has yet to be adopted. Finally, the UN Centre for Transnational Corporations which was bringing some transparency to the functioning of TNCs was shut down in 1993.

Third, the global technology regime has been privatised.[23] The adoption of Agreement on Trade related Intellectual Property Rights (hereafter the TRIPs Text) as a part of the GATT Final Act has been a crucial step in this regard with its preamble baldly stating that "intellectual property rights are private rights" There is little justification for such a pronouncement. Indeed, a review of the literature on intellectual property rights (IPRs) reveals that such a view is difficult to sustain [Chimni 1994:315-33]. As one noted expert has put it,

> the language of property is ill considered here ... Knowledge is not a scarce resource. It is infinite in time and space. It can be used by all without depleting its value. In fact, the more it is used, the more valuable knowledge often is. Allocating property rights in knowledge makes ideas artificially scarce and their use less frequent—and from a social viewpoint, less valuable [Waver 1994:259].

The history of the negotiation of the international patent regime in particular is extremely interesting. Between 1980 and 1985 four international conferences were called under the auspices of WIPO to negotiate changes to the Paris Convention on Industrial Property, 1883. The Paris Convention, which can be termed an empowering document when compared to the TRIPs Text – it leaves to individual member states to define the subject matter of patentability, the duration for which a patent is to be granted and the scope of rights of patent holders – was sought to be revised in order to take into account the concerns of third world countries. But a year later, in 1986, the GATT Uruguay Round of Trade Negotiations was inaugurated in which the Paris Convention was revised in the reverse direction of strengthening the hands of patent holders *vis-a-vis* states in the poor world. The TRIPS Text gives more rights to patent holders, mostly transnational corporations

(TNCs), disregarding the fact that it will have grave consequences for the health of the poor in the underdeveloped world through sharply raising the prices of drugs, including essential life saving drugs, that are already beyond the pocket of the poor [Chimni 1993; 1994]. The absurdity of the TRIPs Text is revealed by the mere fact that it requires countries ranging from Rwanda and Nepal to the US and the UK to legislate the same patent regime. Thus, a principal objection of the third world countries to the TRIPs Text was that a global uniform patent regime did not allow individual countries the freedom – a privilege exercised by the industrialised countries to advance their own technological development – to adopt patent regimes in accordance with the development interests of the individual countries [Ricupero 1990:198-99]. They of course also questioned individual provisions whose substance is to subvert the goal of technological self-reliance that countries like India and Brazil are pursuing [Chimni 1994; Bifani 1990; UNCTAD 1991; Patel 1989; Nair and Kumar 1994]. The response to the resistance offered was the invocation of the US Omnibus Trade and Competitiveness Act, 1988 under which sanctions were threatened against countries unwilling to bring their IPR regime in line with its demands. Finally, like in the instance of transnational capital few duties are imposed on the technology or patent holder in the TRIPs Text. The only text to do so, viz, the Draft Code of Conduct on the Transfer of Technology has yet to be adopted despite being a subject of negotiations for more than two decades.

Fourth, the global commons have been subjected to the process of privatisation. Consider the developments in the Law of the Sea which regulates the use of the oceans. In 1982, after a decade of negotiations, the Third United Nations Conference adopted the Law of the Sea Convention. It was widely welcomed by the international community – despite the scepticism of some of us – as a legal regime which was fair to all the participants. Under the convention the principle of common heritage of (hu)mankind applies to the non-living resources of the ocean floor and its subsoil beyond the limits of the Exclusive Economic Zone (extending to 200 miles) and the Continental Shelf. It is to be operationalised through a parallel regime which requires (vide Article 153) every exploitable site to be divided into two parts, one for the mining company that has made a claim, and the other for UN's Enterprise, the operational arm of the International Sea-Bed Authority established by the convention. Writing in 1982 we had contended that the revolutionary concept of common heritage of mankind harboured reactionary content as it essentially envisaged the private exploitation of the resources of the seabed beyond national jurisdiction [Chimni 1982:407-12]. But such criticism was rejected as the parallel regime envisaged the transfer of technology from private mining consortiums to the enterprise. In 1994, through a subsequent agreement, the obligations relating to the transfer of technology were however dropped [Schrijver 1997: 191]. What is more the operations of the Enterprise have been constrained in other ways.[24] Thus, as one observer puts it, "the ... international law with respect to the global commons remains dominated by the rights of corporate property" [Teeple 1997:32].

Fifth, the idea of the global commons is sought to be extended by the industrialised world to the environment, including resources (e g, forests) which are located within the territory of third world countries [Imber 1994:58ff]. In addressing the issue intertemporal considerations are not given due weight implying a change in the distribution of property rights to the detriment of the third world countries. For "as industrial countries developed, global private rights were granted to polluters; now, developing countries are asked to agree to a redistribution of those property rights without compensation for already depleted resources" [Uimonen and Whalley 1997:66]. This 'redistribution' of course goes hand in hand with an IPR regime which makes environment friendly technology costly to access. On the other hand, there is a push to universalise northern regulatory norms since they promote the interests of transnational capital: the leading 50 environmental corporations in the world are located in the advanced capitalist countries [for details see Pratt and Montgomery 1997: 75-96].

Sixth, there have been established alternative dispute settlement mechanisms which seek to eliminate the role of national courts in resolving disputes between TNCs and the state. Today, international commercial arbitration is the preferred mode of settling disputes for TNCs. Since the late 1970s there has been a tremendous growth in the number of arbitration centres, arbitrators and arbitrations [Dezelay and Garth 1996]. "By the mid-1980s", according to a close observer, "it had become recognised that arbitration was the normal way of settlement of international commercial disputes" [Lalive 1995:2]. International commercial arbitration, it needs to be underlined, is essentially a private interests regime in which parties have 'autonomy' in terms of the selection of the arbitrators, the substantial law to be applied, and the place of arbitration. Support for it rests on a certain assumption of the proper sphere of state activities. In fact it reproduces the public/private divide in international law. Community policy comes into play only at the time of enforcement of an award and that too in the exceptional circumstance that the 'public policy' of a state has been violated, a concept increasingly narrowly interpreted. While, without doubt, international commercial arbitration has a significant role to play in routine cases involving international business transactions, it is not a suitable method for resolving disputes in core areas of national economic life like, for example, the exploration and exploitation of natural resources [Sornarajah 1991:79]. Third world countries were therefore for long suspicious of international commercial arbitration (ibid). For despite claims to the 'autonomy' of parties only a select and elite group of individuals serve as international arbitrators and the law applied is invariably traditional (colonial and imperialist) international law with its clear bias in favour of capital (ibid). But institutions pursuing the interests of capital (the World Bank and the International Chamber of Commerce, for example) have relentlessly promoted international commercial arbitration.[25] The increasing competition in recent years between third world countries to promote foreign direct investment has helped this effort as it has pressurised them to accept the preferences of TNCs in dispute resolution.

(B) Remaking the International Laws of Distribution

Accompanying the network of laws which extend and deepen the reign of capital have been attacks on principles and agreements which attempted to inject, as a part of the effort to usher in a NIEO, the traditional international law of distribution with elements of equity and justice. Two examples would suffice First, is the rejection of the special and differential treatment (SDT) principle which calls for preferential treatment to be given to third world countries. Beginning with the late 1950s, the industrialised world had, under pressure from the newly independent countries – its institutional expression being UNCTAD and the Group of 77 – grudgingly accepted the SDT principle. For example, in 1966 GATT was amended to include Part IV of the agreement (entitled 'Trade and Development') which sought to give expression to the SDT principle. While it did not place hard legal obligations on the industrialised states they were compelled to accept a formal commitment to the SDT principle. Pursuant to it a voluntary Generalised System of Preferences (GSP) scheme was launched in 1970. It was introduced under the auspices of UNCTAD

for the industrialised countries strongly resisted "giving the GSP the form of an amendment to Article 1 of the General Agreement [the MFN clause] and thus ensured the maintenance of the juridical status quo" [Berthoud 1985:78]. The GSP scheme brought little benefit to third world countries [Nicolaides 1995:309]. Beginning with the late 1970s the principle itself came under attack and attempts began to dilute even the soft law commitments. In the GATT Tokyo Round of Trade Negotiations which concluded in 1979, the industrialised world pushed through, despite the opposition of the poor world, a decision which introduced the notorious graduation clause into the SDT principle [GATT 1980:203-05]. A few months before the conclusion of the Tokyo Round the Group of 77 had issued a declaration in UNCTAD in which they expressed their "rejection of the concept of 'graduation' ... which would allow developed countries discriminate among developing countries in a unilateral and arbitrary manner" [Berthoud 1985:83]. It however failed to persuade the industrialised countries. The biggest blow came in the Final Act of the Uruguay Round when a number of agreements and understandings adopted drastically curtailed the grant of SDT. In the balanced language of Trebilcock and Howse, while the Final act "reflect[s] developing country concerns in a number of areas, the tendency has not been to grant developing countries broad exceptions to compliance with GATT rules. In some instances developing countries may be given a somewhat longer period of time to phase in domestic compliance with the new rules, but the Uruguay Round result reflects, in large measure, a rejection of the view that developing countries should not be required to make reciprocal commitments to trade liberalisation" [Trebilcock and Howse 1995:324]. The new texts adopted on key provisions like Article 18-B, the safeguard clause and subsidies represent a clear set back for the SDT principle.[26] Its dilution has been justified in the name of deepening the integration of the third world countries in the world economy and on the belief that "the insistence of on S and D and the refusal to engage in reciprocal negotiations meant that the benefits of GATT membership was substantially reduced" [Hoekman and Kostecki 1995:244]. In actuality, the denial seeks to squeeze the space for independent self-reliant development of third world countries.

Second, dating from the arrival of the Reagan and Thatcher administrations in the US and UK respectively, an all out attack was launched on international commodity agreements (ICAs) whose primary aim is to stabilise the prices of primary commodities by intervening in the world market through the use of export quotas and/or buffer stock mechanisms [Chimni 1987:ch 3]. It may be recalled that the NIEO programme of action had recommended the "expeditious formulation of commodity agreements" and CERDS had stated that "it is the duty of states to contribute to the development of international trade in goods" through concluding ICAs [ibid:3-4]. These instruments were however represented by the Reagan and Thatcher administrations as distorting free markets. The timing of the offensive was impeccable. It came at a point when primary commodity prices were at the lowest since the great depression.[27] The unfortunate collapse of the Fifth International Tin Agreement in 1985 was used to completely discredit the instrument of ICAs disregarding their role in ensuring a more equal distribution of gains from the sale of raw materials, as also the fact that the idea of free market was a myth [ibid:197-212]. What the industrialised world wanted to ensure was that prices of primary commodities remained low through staving off intervention in markets through ICAs. It both increased the profits of capital as also allowed the industrialised world to tackle the problem of inflation at home. While in the beginning of the 1980s there were five ICAs in operation (covering cocoa, coffee, natural rubber, sugar and tin), at the end of the decade only one was in existence. On the other hand, by the early 1990s the average level of non-oil commodity prices was "the lowest for over a century" [Maizels 1994:54]. By 1991 "the total terms of trade loss on all non-oil commodity exports from developing countries amounted to about $60 billion..." (ibid). Over the period 1980-91 "the cumulative loss totalled some $290 billion" [ibid:56].

Yet the hostility to ICAs did not cease. Rather, the end of the cold war eliminated the strategic considerations for supporting ICAs. The US had started supporting ICAs in the early 1960s only in the wake of the Cuban revolution. The Latin American Task Force set up by president Kennedy, concerned at the spread of 'Castroism', had *inter alia* recommended that the US co-operate in establishing co-operative arrangements in order to reduce the potential political consequences of violent fluctuations in the prices of Latin America's exports [Fisher 1972:27]. In March 1961, in his famous Alliance for Progress Speech, president Kennedy stated that the US was ready to 'co-operate with the Latin American and other producer country governments in a serious case-by-case examination of the major commodities and to lend its support to practical efforts to reduce extreme price fluctuations" [ibid:28]. Thus, the collapse of 'actually existing socialism' has taken away the principal reason for the support of ICAs by the US.

IV
Globalisation and International Law-II

The changes which have been introduced in international economic law have been accompanied by an emerging international 'political' law which *inter alia* seeks (i) to legitimise a system of global apartheid in a bid to preserve unbelievable privileges for a section of citizens in the advanced capitalist countries. In this regard international law rules have been rewritten to limit voluntary and forced migration to the west [Richmond 1994]; and (ii) to promote "low intensity democracies" in the third world to sustain favourable conditions for foreign investment. New international law norms are being established to promote 'democratisation' and 'good governance' in order to confer legitimacy on collaborating regimes at a historical juncture when authoritarian regimes no longer need to be supported, as in the past, to fight communism. These two developments are analysed in some detail below.

(A) Toward an International Law of Exclusion: Asylum under Threat

While capital and services have become increasingly mobile in the era of globalisation, labour has been spatially confined despite the urgings of consistent free trade economists [Bhagwati 1989: 243-44]. But what is even more disturbing are recent developments in the advanced capitalist world in relation to the institution of asylum [Chimni 1994; 1995a]. For here we are talking of the forced migration of people, i e, of individuals and groups fleeing untold misery and suffering. Since the early 1980s there has been a concerted attempt by the western countries to dismantle the liberal international refugee regime which was established after the second world war. In particular, the post cold war era has seen a whole host of restrictive practices being put in place to prevent refugees fleeing the underdeveloped countries from arriving in the west.

The international refugee regime was from the beginning a product of the cold war. It was seen as an instrument with which to embarass the former Soviet Union and its allies. "The refugee definition was carefully phrased to include only persons who have been disfranchised by their state on the basis of race, religion, nationality, membership of a particular social group, or political opinion, matter in regards to which East bloc practice ha[d] been historically been problematic" [Hathaway 1991:8]. The import of the definition

becomes clear from, among other things, the fact that nearly 95 per cent of refugees given asylum in the US in this period came from the former communist bloc countries [Robinson and Frelick 1990: 298]. The end of the cold war meant that the refugee lost both ideological and geopolitical value. Identified below, albeit in a summary fashion, are a few of the legal measures and interpretations which have been mobilised for the containment of refugees in the last two decades.[28] They violate either in letter or in spirit the UN Convention on the Status of Refugees, 1951 to which all the western states are parties.

First, there are the restrictive visa policies and carrier sanctions: the latter making airline carriers liable to fines for carrying passengers without proper papers. Second, 'international zones' have been demarcated in airports where physical presence does not amount to legal presence and from where summary and arbitrary removal is permissible. Third, safety zones have been created inside countries – as in northern Iraq and former Yugoslavia – to stop asylum seekers moving out and seeking refuge. As it turned out, these safe zones were the most unsafe you could imagine [Chimni 1995b: 823-54]. Fourth, the fundamental principle of non-refoulement, enshrined in Article 33 of the 1951 UN Convention, has been given an extremely narrow interpretation. According to the principle of non-refoulement "no refugee should be returned to any country where he or she is likely to face persecution or torture" [Goodwin-Gill 1996:117]. An example of an extremely retrogressive interpretation is the decision of the US Supreme Court in Sale v Haitian Centres Council [113 S Ct 2549 (1993)]. In it the US Supreme Court decided that the act of interdicting Haitian refugees on the high seas and returning them to their country of origin irrespective of the claims to having a well founded fear of persecution was not violative of Article 33 of the 1951 Convention. This decision met with near universal disapproval and has been described by the high commissioner for refugees as "a setback to modern international refugee law". Fifth, most countries in Europe, and the US since April 1, 1997, are implementing the 'safe third country' concept whereby an asylum seeker is denied access to a comprehensive asylum determination procedure because they could apparently have sought protection in countries they passed through to reach their ultimate destination. The concept has grave consequences for the asylum seeker as it has led to chain deportations, often back to the country from which the refugee fled. In an unfortunate decision the German Federal Constitutional Court in May 1996 upheld the German safe third country law legitimising its practice in other countries as well. A recent report of the United States Committee on Refugees (USCR) – a privately funded public information programme of Immigration and Refugee Services of America – has however recommended that "the use of national safe third country national laws and practices should be discontinued immediately" [US Committee for Refugees 1997:32]. Sixth, still on the same theme, mention may be made of attempts to harmonise internal procedures in Europe which has led to the adoption of two conventions known as the Dublin and Schengen Conventions which have recently come into force. The USCR has also recommended the scrapping of these conventions insofar as the criteria used for determining claims of asylum seekers is concerned. It recommends that "the country where the asylum seeker first chooses to seek asylum, rather than the country of first arrival, should normally assume responsibility for adjudicating the asylum claim" (ibid). Seventh, asylum seekers have been held in offshore camps which have been effectively declared rights free zones. For example, when the US started holding Haitian and Cuban refugees at Guantanamo Bay, a territory leased out from Cuba, a US Court of Appeals ruled in Cuban American Bar Association (CABA) v Christopher [43 F 3d 1412 (11th Cir 1995)] that refugees in 'safe haven' camps outside the US did not have constitutional rights of due process or equal protection, and were not protected against forced return. This is, according to Bill Frelick of the USCR, "an open invitation for abusive and arbitrary conduct". Eighth, where an asylum seeker manages to cross these hurdles a very restrictive interpretation is given to the definition of 'refugee' contained in the 1951 Convention. For example, asylum seekers fleeing former Yugoslavia, most of whom met the 1951 Convention definition, have been denied refugee status. Some countries (Canada, for example) have also invoked the internal flight alternative (IFA) test to deny refugee status. Together, these interpretations and measures manifest a language of rejection which threatens the very institution of asylum. They epitomise the international law of exclusion.

(B) Polyarchy, Intervention and International Human Rights Law

It has however not prevented the advanced capitalist world from mobilising international human rights law to support global economic expansion without committing itself to the pursuit of equity in its international economic relations.

First, a particular perspective on international human rights law has been advanced to support the idea of 'low intensity democracy' or 'polyarchy' with the idea of legitimising internal orders which favour foreign investment and provide stable social and political conditions for its operation [Evans 1997:99]. Polyarchy refers "to a system in which a small group actually rules and mass participation in decision-making is confined to leadership choice in elections carefully managed by competing elites" [Robinson 1996:49, 57]. Under it "a system can acquire a democratic form without a democratic content" [Ibid; see also Evans 1997:98-99]. International law experts like Franck claim that there is an emergent right to democratic governance linking the legitimacy of governments with 'free and fair' electoral processes [Franck 1992:46; Fox 1992:539; Teson 1995:91-92]. This limited concept of legitimacy suits the interests of transnational capital which is keen to see the rule of law prevail without it translating into the participatory rights of people.[29] It is therefore no accident that despite accepting at a formal level the fact that economic and social rights have the same significance as political and civil rights the industrialised world has done little to put this view into practice on the international plane. For example, the right to development was declared by the UN General Assembly in 1986 as 'an inalienable human right'.[30] But little has been done to give substance to the right. If anything attempts have been made to empty it of content. The SDT principle is said to be "central to a new international development law" and "at the heart of a new legal method" to inject an element of equity in international economic relations [Carty 1993:88]. But the SDT principle, as we saw, has been given short shrift in the GATT/WTO regime. Further, the advanced capitalist world has authored the structural adjustment policies being implemented by the international financial institutions which have led to the massive violation of the economic and social rights of the working peoples of the underdeveloped world [Bello 1994; Cornea 1992; Development Gap 1993; Ghai 1991; Cornea, Jolly and Stewart 1987].

Second, in the matrix of international human rights law a right to humanitarian intervention has been shaped which legitimises intrusions in the sovereign political space of third world countries. To put it differently, where 'low intensity democracies' collapse ('failed states') the industrialised world has given to itself the right to intervene (often through the UN) to restore 'polyarchy'. As Orford has noted, in this view "collective humanitarian intervention is legitimate if it ensures that the criteria of formal procedural democracy are met even in sharply polarised societies where large groups are excluded from decision-making power" [Oxford 1997:

461]. Powerful northern states also use the language of human rights for the moral condemnation of states which are not low intensity democracies ('rogue states') to take punitive action against them. In the Nicaragua case the International Court of Justice held that it "cannot contemplate the creation of a new rule opening up a right to intervention by the one State against another on the ground that the latter has opted for some particular ideology or political system". ('Case Concerning Military and Parliamentary Activities in and Against Nicaragua', Nicaragua v United States of America, *ICJ Reports*, 1986, para 283.) However, in recent years, precisely such a right of intervention is being shaped in the matrix of human rights law [for justification see Teson 1988].

V
Globalisation and International Institutions

In the corpus of literature which constitutes international legal studies there is little reflection on the role of international institutions in sustaining a particular vision of world order. While international law experts have concerned themselves with international institutions, the discussion has largely been confined to the rules of law which govern their legal status, structure and functioning, with matters of power and influence left to political scientists.[31] This is in contrast to the significance of 'international state apparatuses' (ISAs) in any national context. The ISAs serve, as Fine and Harris have pointed out, several functions. First, they help mitigate inter-imperialist rivalries. This does not mean international institutions remain neutral to these rivalries. Rather "they will be constructed and forced to promote the internationalisation of capital according to the relative strengths of different blocs of capital in competition ..." [Fine and Harris 1979:154]. Second, they help implement imperialist domination through the international control of finance, tariffs, etc. Third, "the working classes of all national states can be disciplined and moderated in class struggle by the economic control exercised by these bodies, a control that is remote from the struggles at the point of production" [ibid:153]. In other words, according to Fine and Harris,

> ... there exists a complex structure of national and international capitalist state apparatuses, some of which are more distanced from the site of class struggles (the national social formation) than others. Those which are more distanced are more freely able to pursue the class interest and class positions of the dominant bourgeois fractions than is the national state. Because they have mechanisms (laws, treaties, agreements) for enforcing policies onto their constituent national states this structure of international institutions is able to exert what appears as an outside pressure on national states in favour of the interests of internationalised capital [ibid:160].

The Fine and Harris conclusions were perhaps not entirely appropriate for the time they were writing. In the 1970s international institutions still played a relatively peripheral role within the international system [Kirdar 1977: 24-25]. This was a time in which the third world countries were still avoiding going to the IMF as it imposed onerous conditionalities on the state, and the GATT was a long distance away from being transformed into the WTO, an octopus like organisation regulating critical areas of national economic life. But today, as one observer notes, "the 'commanding heights' of state decision-making are shifting to supranational institutions" [Robinson 1996:18].

The nature and character of these international institutions cannot be understood from within a bourgeois legal framework with its emphasis on formalism. In order to make sense of the functioning of international institutions we need to locate them within the larger social order, in particular the historical and political contexts in which they originate and function. Such an approach contends that only when a coalition of powerful social forces is persuaded that an international institution is the appropriate form in which to defend their interests is it brought into existence, albeit through state action, and it survives only if it continues to serve these interests [Murphy 1994:25, 44; Cox 1996]. The class which exercises the most influence in these institutions today is the transnationalised fractions of national bourgeoisies with the now ascendant transnationalised fractions in the third world playing the role of junior partners. These fractions do not seek in these institutions to actualise 'national interests' but rather act as "transmission belts and filtering devices for the imposition of the transnational agenda" [Robinson 1996:19].[32]

Three principal features characterise contemporary developments relating to international institutions. The first feature is the transfer of sovereign economic decision-making from nation-states to international economic institutions. Second, is the resistance to putting in place a decision-making process which is transparent and democratic. Third, is the gearing of the UN system towards promoting the interests of transnational capital, including increasing the role that the corporate sector can play within the organisation. Together, these features limit the possibilities of genuine democratisation of both inter- and intra-state relations. B[y] a contrary impression is sought to be creat[ed] through steering the knowledge productic[on] and dissemination functions of inte[r]national institutions; an ocean of literatu[re] is produced to justify their transforme[d] role.

(A) Expanding Role of 'Internationa[l] State Apparatuses'

The GATT/WTO regime best exem[]plifies the shift in power to 'internation[al] state apparatuses'. The GATT/WT[O] regime now regulates not merely trade i[n] manufactured goods but also trade i[n] agricultural commodities, 'trade relate[d] foreign investment, intellectual propert[y] rights and trade in services. Negotiation[s] are to begin under the auspices of th[e] WTO on other areas like the social claus[e] the trade-environment interface, and [a] multilateral agreement on investmen[t]. Guaranteeing the observance of the rule[s] in these diverse areas is the WTO disput[e] settlement system (DSS) backed by [a] system of sanctions. The usual lament tha[t] international law is not law as it lack[s] enforcement mechanisms does not appl[y] at least in the instance of the WTO.

In key areas of national economic lif[e] it will be the decisions of the DSS whic[h] will be final rather than, as in the past, th[e] decisions of the highest court within [a] nation-state. The DSS has been considerably strengthened under the WTO through the inclusion of several new features not present in the GATT system. The essence of these new features is to have disputes settled within a short time framework and to ensure that the impugned state abides by decisions delivered by the DSS.[33] A complex system of sanctions (including a system of cross-retaliation across sectors) has been put in place to make a recalcitrant state agree to obey the decisions of the DSS.[34]

It is true that the DSS has moved from a power oriented system under GATT to a rule oriented system in the WTO.[35] As Trebilcock and Howse note: "...the history of GATT dispute resolution has evinced a tendency towards greater reliance on a rule-oriented regime in resolving disputes" [Trebilcock and Howse:383]. They correctly point out that "the Uruguay Round Understanding on Dispute Resolution seeks to advance substantially the legal orders conception of the GATT" [ibid: 397]. To the extent that the new DSS reduces the role of power in arriving at solutions to international trade disputes it is certainly welcome. Surely, in a battle of briefs the less powerful countries have a better chance to have their views accepted than in negotiations which are openly visited by power.

However, the move to a rule of law model is placed in perspective if, first, the

DSS is evaluated in conjunction with the substantive agreements which constitute the Final Act. Since the rules they codify protect the interests of the industrialised states, in particular transnational capital, a rule oriented dispute settlement system only goes to enhance the inequities which they sanction. Second, the fact that unilateral sanctions continue to form a part of the system, as is reflected, for example, in the continuing use of super and special provisions of the 1988 Omnibus Trade and Competitiveness Act by the US, reveals that power continues to play a role in dispute settlement.[36] Third, where there is the possibility of the DSS seriously hurting the industrialised world attempts have been made to curb the move towards a rule oriented system. For example, special rules of interpretation have been included in the context of challenges to the imposition of anti-dumping duties (essentially used as a protectionist device by the industrialised states).[37]

The relocation of sovereignty that the DSS involves has been achieved without making the WTO in any way accountable to the peoples who inhabit the states whose actions it proposes to surveille and supervise. There is the absence of democratic participation in the law-making and dispute settlement process. Important elements of civil society – interest groups, civic organisations, and legislatures – are denied any role in it. The WTO DSS does not allow non-state involvement and is secretive in hearings and documentation. Thus, the WTO clearly needs to be opened up to wider participation; the executive arm of the state alone should not be allowed to represent the state [Kingsbury 1994: 8-9, 14-17, 34]. The democracy deficit the WTO suffers from is a big blow to the attempts of third world peoples to inject greater democracy in the functioning of the international system.

(B) Resistance to Democratic Decision-Making: The Case of IMF

The absence of democratic functioning also characterises the international financial institutions which have come to exercise unprecedented influence on the lives of ordinary people in the third world. The anti-democratic nature of its functioning is more primitive as here the problem is of allowing different groups of states equitable representation in the decision-making process of the organisation. To take the case of the IMF, the decision-making process in it is based on a system of weighted voting which excludes its principal users, the poor world, from a say in the policy-making.[38] The third world voice is not heard even as the policies of the Fund inflict enormous pain and death on the people who inhabit it [Bello 1994; Cornea 1992; Development Gap 1993; Ghai 1991; Cornea, Jolly and Stewart 1987].

In 1993, the IMF boasted of a membership of 175 countries. Of these 23 were developed countries, 17 were east European countries including eight states of the former Soviet Union, and the remaining 135 countries were third world countries, including six central Asian countries of the former Soviet Union. Nearly 4.4 billion people or 78 per cent of the world's 1990 population live in the third world [Gerster 1993: 121]. Despite constituting an overwhelming majority of the membership the third world countries as a whole had a voting share of 34 per cent in the IMF.[39] Without the OPEC countries (who act as creditor states in the institution) this share is reduced to 24 per cent.[40]

Since the 1960s the third world countries have been concerned with their lack of effective participation in the decision-making process in the Fund.[41] In the beginning their concern was essentially with the usurpation of the Funds' decision-making by the industrialised countries rather than the internal decision making authority [ibid:87]. But since the early 1970s a systematic challenge was launched to seek changes in the structure of Fund decision-making.[42] CERDS stressed the need for full and effective participation in the decision-making process of international economic and financial institutions.[43] From the outset the third world countries were ready to concede that a one state-one vote formula was unrealistic insofar as the Fund was concerned. Besides the question of power politics, the need to safeguard the revolving nature of the Fund, and the viability of allowing borrower countries to have a majority in an international lending institution, an important constraint was the non-usability for the most part of currency resources of the developing countries [Fergusan 1988: 100-02]. In other words, an increase in their quotas could mean a diminution in the lending capacity of the institution [ibid: 101].

The third world countries are therefore willing to give a functional interpretation to the principle of equality. Instead of insisting on equality of voting between states they emphasise on the relative equality among groups of states.[44] In other words, they wanted the third world countries as a whole to have an effective voice in the decision-making process [Fergusan 1988, 91-94].[45] This could be done by expansion of basic voting power and/or by establishing different criteria for establishing voting power other than the one used to determine quotas. For instance, by taking population into account.[46] There are many examples of using the concept of group as the basis for giving content to the principle of participatory equality of states [ibid: 104-06]. If accepted it would enhance the possibilities of effective participation of concerned states and increase the transparency of decisions, without taking away the dominant voice of the lender developed countries. Instead of looking to the long-term interests of the world economy in terms of the interests of the overwhelming population of the globe, the weak situation of the third world is being used to impose conditions which extend and deepen the role of private property and lead to the worsening of the conditions of the people. It is then understandable that the imperialist world resists the transformation of the decision-making process in a democratic direction.

(C) The Privatisation of the UN System

In the present period all international institutions are being mobilised in favour of promoting the interests of transnational capital. Mention needs to be made of the important role that the UN system is coming to play in the global privatisation process as also the moves to 'privatise' the United Nations system itself. The UN secretary-general has gone so far as to suggest that "the very concept of intergovernmentalism as we know it is being altered as a result of the redefinition of the role of government..." [Annan 1997:68]. In his speech to the World Economic Forum in February 1997 Annan announced that "strengthening the partnership between the United Nations and the private sector will be one of the priorities of my term as secretary-general".[47] This vision is built on the "new universal understanding that market forces are essential for sustainable development (sic)" [ibid: 1]. These pronouncements need to be read in the background of the shutting down of the Centre for Transnational Corporations, the fact that the UNCTAD has "repositioned itself" [Annan 1997:20] and the marginalisation of development issues in the UN system [South Centre 1996]. It becomes clear then that the agenda of the UN is being transformed from one supportive of restructuring extant international economic relations to one which is in the business of strengthening it. While it still continues to pay lip service to the global poor, its principal goal has come to be to promote the interests of private capital, both domestic and transnational, and make appeals to it to serve the cause of international justice.[48]

The promotion of the corporate sector is taking place even within the UN system. While there has never been any doubt about the policy tilt of the international financial institutions, private interests have come to influence a larger segment of the UN system. Lee, Humphreys and

Pugh have, on the basis of the analysis of three UN organisations (viz, International Telecommunication Union, International Maritime Organisation and International Tropical Timber Organisation), drawn attention to the fact that "private companies are increasingly influencing decisions and activities that are nominally the prerogative of governments" [Lee, Humphreys and Pugh 1997:339]. Further, under discussion are terms of reference for business sector participation in the policy setting process of the UN, as also partnering in the use of UN development assistance funds and in the pursuit of the goal of sustainable development [Korten 1997]. These developments may eventually transform the character of the UN from a public to a private organisation.

(D) Legitimation Functions of International Institutions

A key omission of international legal studies has been the failure to study the ideological role of international institutions.[49] The ideological or what may be termed the legitimation functions of international institutions assumes many forms. First, the organisation represents its institutional field and concerns to the outside world. Second, it actively promotes norms of international behaviour which facilitate the realisation of its objectives. Third, it frames issues for collective debate and proposes specific policy responses. Fourth, it identifies key points for negotiation in order to fill gaps in the normative framework and to adjust to changes in the external environment. Finally, it evaluates the policies of member states from the standpoint of their mandate and concerns. The knowledge production and dissemination functions of international institutions are steered by the dominant coalition of social forces and states to legitimise their vision of world order.[50] Only an oppositional coalition can evolve counter-discourses which deconstruct and challenge the hegemonic vision. This has been done in the past. For example, the entire debate on a NIEO was generated by the third world countries, with the support of the former Soviet Union, through either establishing institutions in which it exercised a dominant voice (like UNCTAD) or through a global coalitional politics which compelled the dominant states to listen to their voice in other institutions. The collapse of 'actually existing socialism', the crisis which has gripped third world economies in the past two decades, and the withering away of the Group of 77 has translated into the universal language of privatisation and markets. The forced consensus on this language needs to be urgently challenged.

VI
International Law, Hegemony, and the Use of Force

The dominance of powerful states in the international system is thus sustained not through the use of force but through having a certain conception of world order accepted as a natural order by the ruling classes and peoples of states over which dominance is exercised. However, when necessary, threats to the system are countered through the use of force. This force is invariably sought to be legitimised through the language of international law. While the threat or use of force is outlawed by the UN Charter (Article 2 para 4), it permits its use in self-defence (Article 51). There are also questions relating to the meaning of aggression, the use of force, and self-defence which create space for dubious interpretations. Since there is no compulsory third party settlement of international disputes in international relations there is no forum in which the interpretations advanced by dominant powers to justify the use of force can be challenged. Where it has been possible, as was the case when Nicaragua took the US to the International Court of Justice (ICJ), the US refused to comply with the decision. In fact in the Nicaragua case the US refused to participate further in the proceedings of the case as soon as the ICJ, overriding US objections, accepted to exercise jurisdiction. Indeed, piqued by its decision the US terminated its acceptance of the compulsory jurisdiction of the court [for a discussion see Chimni 1986: 960-70]. However, the ICJ went ahead and found the US "in breach of its obligation under customary international law not to intervene in the affairs of another state" and "not to use force against another state" [*ICJ Reports*, 1986, para 292]. It was also found guilty of violating the sovereignty of another state [ibid]. The US, of course, refused to abide by the decision of the World Court. Nevertheless, it underlined the fact that the idea of a rule of law in international affairs is not an empty one. It cannot be dismissed as a mere ideological device used by dominant states to maintain order in the international system. This is not to deny the originary violence which marks the present international legal system or the periodic violence unleashed on states and peoples which seek to challenge the prevailing consensus but to avoid falling into the trap of legal nihilism through a general condemnation of law and legal institutions.

The Gulf war, on the other hand, is perhaps the best demonstration of the thesis that the hegemonic powers will not shy away from the use of force when serious challenges are mounted to the system. In this case demonstrative force was used to defend the neo-colonial character of the existing international system.[51] As Said has observed with respect to the Gulf war "The entire premise was colonial: that a small third world dictatorship, nurtured and supported by the west, did not have the right to challenge America, which was white and superior. Britain bombed Iraq troops in the 1920s for daring to resist colonial rule; 70 years later the United States did it but with a more moralistic tone, which did little to conceal the thesis that Middle East oil reserves were an *American* trust" [Said 1993:295, emphasis in original]. During the course of the war the UN Security Council was treated as an extension of the US state department and the legal framework for Security Council actions shown scant respect [Anand 1994:5-17; Schacter 1991:45; Weston 1991:522]. In fact the UN Security Council abdicated its responsibility inasmuch as it had no control over what were ostensibly UN operations [ibid].

The force used was clearly disproportionate, and eventually directed at the fleeing enemy. International humanitarian laws were thrown to the wind [ibid:46ff]. Iraqi civilians were consciously made to suffer for reasons unrelated to the defeat, surrender, or weakening of the Iraqi military [Normand and Jochnik 1994:410]. The barbarian/civilised dichotomy which characterised imperialist international law came into play. Said has noted how the western media suggested that "Arabs only understand force; brutality and violence are part of Arab civilisation..." [Said 1993: 295]. It suggested that the western power "could go ahead and kill, bomb, and destroy, since what would be being attacked was really negligible, brittle with no relationship to books, ideas, cultures, and no relation either...to real people" [ibid: 298].[52] What is equally significant is what got left out: "What got left out was enormous. Little was reported on oil company profits, or how the surge in oil prices had little to do with supply; oil continued to be overproduced" [ibid:296; see also Fran 1992:3-22]. In brief, the conclusion suggests itself that like in the colonial period the laws of war are seen as imposing few constraints where the non-European world is concerned. As Bauman puts it, "since they are by definition violent, barbarians are legitimate objects of violence. Civility is for civil, barbarity for the barbaric" [Bauman 143]. It is hardly surprising therefore that the US has recently voted against the establishment of the international criminal court [*The Guardian Weekly* 1998:3].

VII
Conclusion

The aim of this paper was to draw attention to the crucial role international law and institutions have come to play i

the contemporary international system. With capitalism entering the phase of globalisation international law is playing a role akin to the one which internal law performed in the early stages of capitalism in removing local impediments to the process of accumulation. The international legal process is being used to control the content of national laws in crucial areas of economic, political, and social life, as also to relocate powers from sovereign states to international institutions in order to facilitate their surveillance and enforcement. These developments have considerably eroded the capacity of third world states to carry out independent and self-reliant development

For a period of time in the 1970s there was optimism that international laws could be transformed by a global coalition of third world countries to meet their particular concerns. An equitable international law of distribution was sought to be shaped through the adoption of the SDT principle and by promoting ICAs to realise just prices. Negotiations were also initiated to draft codes of conduct to regulate TNCs and the transfer of technology, and to revise the Paris convention on industrial property. Radical concepts such as the 'common heritage of mankind' were advanced in the process of arriving at rules to govern the use of the oceans. Attempts were made to democratise the decision-making process in the IMF and the World Bank. But these initiatives floundered on the rock of neo-colonialism. From the beginning of the 1980s, an increasingly hostile international economic environment saw the third world countries abandon the strategy of global coalition, hoping to separately encash their dependent status.

Meanwhile, capitalism entered the phase of globalisation. It was now the turn of the advanced capitalist countries to seek changes in the body of international law. These changes involved, first, the rejection of the proposals which had emerged in the 1970s in the form of a programme and declaration of action on NIEO and CERDS. Second, it called for the adoption of legal instruments to free transnational capital of spatial and temporal constraints. Third, an international law of distribution based on market ethics was given shape, eliminating all chances of injecting equity into international economic relations. Fourth, changes were initiated in the relevant international legal regime to enable the strict control of voluntary and forced migration. Fifth, international state apparatuses' were sought to be established to ensure the effective implementation of the rules which facilitate and promote accumulation in the era of globalisation.

These changes in the body of international law reflect the domination of the transnationalised fractions of the bourgeousie in the advanced capitalist countries. They have in this regard the active consent of their counterparts in the third world. The latter not only faithfully act as transmission belts for the ideas emerging from the advanced capitalist world but vigorously support it in a bid to profit from becoming junior partners in the global domination project. At the receiving end are the working classes and disadvantaged groups in the first and the third worlds. Their condition has seriously worsened in the last two decades.[53] On the other hand, as a result of the relocation of powers from nation-states to international institutions, the capacity of the left and democratic movements to resist developments which adversely affect their interests has declined [Robinson 1996:27]. If the global progressive forces hope to interrupt and thwart the reproduction of the relations of transnational domination then they must, among other things, think of ways and means to enhance their own role in the international law-making and law enforcement process. This calls for much greater attention to be paid to international legal developments than is being done at present. The international legal strategy must in turn form an integral part of a transnational counter-hegemonic project which, even as it continues to have its principal base in national struggles, comes to form transnational alliances in order to resist the vision of globalised capitalism.

Notes

1 "Perhaps the most important of the revolutions in the dimension of modern international law lies in its expanding scope, in the addition of new subjects to the field of international law" [Friedmann 1968].

2 Seven decades ago, in his preface to the second Russian edition of his book on law and Marxism, Pashukanis (1978:38) wrote that "...the Marxist critique has not even touched on such fields as that of international law yet" The situation is no different today

3 For a critique of the Soviet International Law approach as articulated by its chief spokesman G I Tunkin in the period after the second world war see Chimni (1993:chapter V)

4 Oppenheim, for example, defines international law as "the body of rules which are legally binding on states in their intercourse with each other" [Jennings 1992:4]. Modern textbook writers often extend the definition to include the relations between states and organisations and non-state entities, and in some respect individuals. For instance, Starke (1989:3) defines international law "as that body of law which is composed for its greater part of principles and rules of conduct which states feel themselves bound to observe, and therefore, do commonly observe in their relations with each other, and which includes also, (a) the rule of law relating to the functioning of international institutions or organisations, their relations with each other, and their relations with states and individuals; and (b) certain rules of law relating to individuals and non-state entities so far as the rights and duties of such individuals and non-state entities are the concern of the international community". However, Starke (1989:4) hastens to add that "from a practical point of view, it is well to remember that international law is primarily a system regulating the rights and duties of states *inter se*". But even the broader definition is a formal and technical definition. The general point was made long ago by Pashukanis [Bierne and Sharlet 1980:169].

5 Indeed, "exploring this logic of anarchy is held to be the distinctive task of IR theory – a task which must be kept separate from the study of domestic politics which is governed by fundamentally different principles" [Rosenberg 1994:4].

6 It, of course, raises the complex question as to whether the world economy is the basis of international law in the same way as the internal economic structure can be said to be the basis of internal law.

7 A central feature of bourgeois democratic international law is the universalisation of the principle of sovereign equality of states For a detailed account of these phases see Chimni (1993:224-36)

8 The irony was not lost on Amin "the 1975 turning point seemed striking to me because of the non-aligned movement and the Group of 77 proposal for a New International Economic Order".

9 After all, it was the struggles of the working class and other marginalised peoples which pushed third world elites to supporting radical moves on the international scene.

10 Post-structuralist scholars tend to fall into this trap. For example, David Kennedy of Harvard Law School writes: "Rather than a stable domain which relates in some complicated way to society or political economy or class structure, law is simply the practice and argument about the relationship between something posited as law and something posited as society" [Kennedy 1988:8].

11 In other words, insofar as international law is an ideological construct and possesses a distinct form, it also has an independent history. As Engels pointed out, "every ideology...once it has arisen, develops in connection with the given concept material further, otherwise it would not be an ideology, that is, occupation with thoughts as with independent entities, developing independently and subject only to their own laws" [Engels nd:372]

12 The sources of international law are seen as being articulated in Article 38 para (1) of the Statute of the International Court of Justice (ICJ). It reads

The court, whose function is to decide in accordance with international law such disputes as are submitted to it, shall apply:

(a) international convention, whether general or particular.. ,

(b) international custom, as evidence of a general practice accepted as law;

(c) the general principles of law recognised by civilised nations, and

(d) ...judicial decisions and the teachings of most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law.

13 As the present president of the ICJ has put it [Bedjaoui 1979:128], international law must "accept the challenge being made to it both by the structural disorder of the world economy and by the deeply felt desire of all peoples for

a new international economic order. However, it is perfectly clear that to satisfy such hopes and to meet the needs of the international community seeking for this new order, international law cannot properly and effectively undertake its own transformation if it confines to its traditional sources alone, i e, custom, treaties and general legal principles. The inadequacy of traditional ways of forming the rules of international law is very sharply felt at the present time. What is to be done if not to make use of other sources?"

14 Koskenniemi (1990:27) puts it this way: "the idea of an international Rule of Law has been a credible one because to strive for it implies no commitment regarding the content of the norms thereby established or the character of society advanced".

15 It is true that the distinctive nature of the international legal process in which sovereign states negotiate ensures that even a group of powerful states cannot translate their economic interests directly into law. Other states have to agree to undertake certain obligations and even puppet states possess a degree of independence in shaping their external relations. International economic relations, in other words, is not passively mediated by particular national economies. However, this does not on the other hand mean that power does not write its interests into law. It merely defines the limits of its role in the international legal process.

16 We recognise that 'globalisation' is an essentially contested concept [Hirst and Thompson 1995, Hoogvelt 1997] What we adopt here is a working definition which highlights its general feature

17 It is often forgotten that the IMF/WB combine achieve their goals through imposing legal obligations on states. International Monetary Law has evolved through, among other things, the interpretation of the Articles of Agreement of the IMF. According to Dam (1982.117) the history of interpretation of the Fund's Articles of Agreement is nothing more, and nothing less, than the record of the rules of the Fund". He then goes on to point out that 'perhaps the most interesting evolution has occurred with respect to those rules dealing with access to Fund resources and, in particular, what has come to be known in Fund parlance as conditionality' That term refers to the conditions that the Fund may impose on access to its resources and on their subsequent use by member countries " See also Gold (1984) At a later point in this article we discuss the anti-democratic nature of the decision-making process in the IMF.

18 Hoogvelt (1997 172) cites one senior World Bank manager who resigned after 12 years as stating: "Everything we did from 1983 onwards was based on our new sense of mission to have the south 'privatised' or die: towards this end we ignominiously created economic bedlam in Latin America and Africa".

19 MIGA insures foreign direct investments against non-commercial risks. For a summary see Petersmann (1988:50-62).

20 BITS represent a clear retreat from CERDS: the latter laid down a restrictive basis for the payment of compensation for expropriated or nationalised property.

21 The Guidelines recommend a 'general approach of free admission'. It then calls for 'fair and equitable treatment' of foreign investment. For the text of the World Bank Guidelines on the Treatment of Foreign Direct Investment see UN (1996:247-55).

22 On the MAI see Dhar and Chaturvedi (1998:837-50) and *The Guardian Weekly* 1998.

23 This is in contrast to the view that "technology is the archetypal common heritage of mankind since it is the expression of man's spirit, his boldness and his conquests, of the advance of science and human knowledge over the centuries and beyond state boundaries" [Bedjaoui 1979:231].

24 'During the period 1990-94, 15 meetings were convened which resulted in a Draft Agreement Relating to the Implementation of Part XI of the UN Convention on the Law of the Sea of December 10, 1982. On July 28, 1994, the General Assembly adopted the Agreement by 121 votes to none, with seven abstentions. The Agreement substantially accommodates the US and other western nations' objections to the deep sea-bed mining regime...It eliminates major stumbling blocks, such as a production limitation in favour of land-based producers of minerals, and mandatory transfer of technology and significantly restrains the role of envisaged supranational mining company, the UN Enterprise' [Scrijver 1997:217-18].

25 In 1965 the International Centre for the Settlement of Investment Disputes (ICSID) was established under the auspices of the World Bank. Those states which become members of ICSID agreed to have a dispute with a private entity settled before it

26 For example, Article 18-B allowed developing countries to impose quantitative restrictions to safeguard an adverse balance of payments situation This has now become difficult as the new understanding on Article 18-B tightens the rules governing its invocation. See Dubey (1996:85ff).

27 ..the general level of real commodity prices had fallen by 1986 to below the nadir reached in 1932 during the Great Depression of the inter-war era" [Maizels 1994:53].

28 This section borrows heavily from my article 'The Law and Politics of Regional Solution of the Refugee Problem: The Case of South Asia', *RCSS Policy Studies 4*, Regional Centre for Strategic Studies, Colombo, July 1998.

29 It has also been its experience during the cold war era that support for authoritarian regimes has inevitably led to a backlash which threatens foreign investment and property.

30 GA Res 41/128. The declaration was adopted by a recorded vote: 146-1(US)-8.

31 Schermers and Blokker (1995:4) in their well known work on international institutional law write that "the institutional law of international organisations comprises those rules of law which govern their legal status, structure and functioning" Schermers and Blokker go on to observe: "While, in the land of legal science, there is no strongly established tradition of developing theories of international organisations, this is different for the neighbouring discipline of political science...These studies, of course, approach international organisations from a different perspective; they pose different questions and use different methodology They are more interested in matters of power and influence, while legal studies depart from rules." (pp 8-9)

32 This agenda is resisted by what may be called the non-transnationalised fractions under the banner of 'nationalism'. Its critique of these institutions often coincides with that offered by left parties without, of course, partaking in the vision of establishing democratic socialism.

33 This is done through incorporating the negative consensus system Article 16.4 of the 'Understanding on Rules and procedures governing the Settlement of disputes' (DSU) states that a Panel Report would be adopted within 60 days unless one of the parties appeals the report or 'the DSB [Disputes Settlement Body] decides by consensus not to adopt the report' It means that even if a single state votes in favour of the adoption of the report submitted under the DSS it will be binding on the parties to the dispute

34 See Article 22 of the DSU for the provisions on cross-retaliation.

35 For a discussion on the two alternative paradigms see Jackson (1989:85-88)

36 Even before the conclusion of the Uruguay Round of Trade Negotiations and the establishment of the new DSS, Bhagwati (1988: 93, 105) had pointed out that the 1988 legislation represented "pernicious bilateralism" and that Super 301 is 'like Judge Dee of mediaeval China becoming the plaintiff, judge and jury'

37 "AD is simply a packaging of protectionism to make it look something different... AD is a major loophole in the GATT, used strategically by firms" [Hoekmann and Kostecki 1995: 177-78]. Further, by allowing a unilateral national response (anti-dumping duties or countervailing duties) the more economically powerful nations can have a considerable impact on smaller trading nations, while the reverse may not be true (Ibid: 243). Article 17 6 (ii) of 'Agreement on Implementation of Article VI' (the Anti-dumping Code) states that where "a relevant provision of the Agreement admits of more than one permissible interpretation, the panel shall find the authorities measure to be in conformity with the Agreement if it rests upon one of those permissible interpretations" As noted by Palmeter (1995), "a major goal of US user industries in the Uruguay round was to limit the ability of GATT panels to overturn domestic decisions. The standard of review embodied in the Agreement reflects the power of the industries supporting AD. The lobby was strong enough to make this specific issue a deal-breaker for the United States, and it obtained most of what it sought"

38 'The extent to which developing countries rather than industrialised countries are dependent upon the financial assistance from the IMF is illustrated by the fact that the last time IMF loans were drawn by any of the industrialised countries was in 1979, namely by Australia and New Zealand [Gerster 1993].

39 Despite the fact that the developing country membership has increased from 93 in 1970 to 135 in 1993 the voting power has decreased from 37 per cent in 1970 to 34 per cent in 1993 [Gerster 1993 122] The reason for this state of affairs is to be traced to the method of determining voting power By becoming a member each state acquires a basic voting power consisting of 250 votes. The rationale for distribution of basic votes was, other than paying homage to the principle of sovereign equality of states, the need to prevent, in however small a way, control of the institution by a few countries, an objective at that point articulated and shared by the US This role of basic votes has substantially eroded in the last five decades. While the membership of the

organisation has increased from 44 in 1947 to 175 in 1993 the proportion of basic votes to total votes has decreased from 12.5 per cent in 1947 to 3 per cent in 1993 (Ibid:123). In addition to basic votes each state receives a further vote for every 1,00,000 SDRs of its IMF quota, quotas are determined (at least in theory) in accordance with the importance a particular country has in the world economy, and thus its capacity to contribute to the convertible financial resources of the Fund The weight of subscription-based voting power, as would be evident, has increased from 87.5 per cent in 1947 to 97 per cent in 1993 It only needs to be added that decisions concerning stabilisation and adjustment programmes merely require an unqualified majority of 50 per cent.

40 This fact is of importance because countries like Saudi Arabia have most often the same interests as other creditor developed countries [Fergusan 1988:219]

41 The relative lack of concern in the period prior to that can be traced *inter alia* to the fact that the IMF "was peripheral to the broad operationalisation of international economic relations" [Fergusan 1988:84].

42 This was particularly after the unilateral decision of the US on August 15, 1971 regarding the convertibility of its currency and its negative impact on the third world countries (ibid 88 and 107)

43 Article 10 of the Charter stated: "All states are juridically equal and, as equal members of the international community, have the right to participate fully and effectively in the international decision-making in the solution of world economic, financial and monetary problems, *inter alia*, through the appropriate international organisations in accordance with their existing and evolving rules, and to share equitably in the benefits resulting therefrom".

44 On the notion of relative inequality see Zamora (1980:603) and Chimni (1987:95-98)

45 As Fergusan (1988:91) has noted, "In the Fund itself, by the end of the 1970s, they were arguing for a specific quantitative limit to the quantum of quotas they should be allotted, as a group They pressed for 45 per cent of Fund quotas"

46 In these regards see Gerster (1993:126-27) As Fergusan (1988:99) has noted: "There are three ways, theoretically, to effect adjustments in voting power in the IMF. The first way is by changing the quantum of basic votes granted by each member – an approach that necessitates an amendment of the Articles. The second way is to obtain changes in the criteria that are used for the allocation of quotas... And, finally, an improvement in the relative economic performance of countries has traditionally been rewarded by increased quotas in the Fund"

47 *UN Newsletter*, vol 52, no 6, February 8, 1997, p 2 See for a list of 'achievements' 'The UN and Business: A Global Partnership', *UN Newsletter*, New Delhi, vol 53, no 28, July 11, 1998, p 8

48 Indeed, transnational capital is able to influence the agenda-setting as was 'evident at the UNCED in June 1992'. According to Thomas, "transnationals played a formative role in shaping the Rio agenda, aided by their financial support for the conference, and the high-profile role and the access given to the Business Council for Sustainable Development by conference chairman Maurice Strong. At the behest of the US all references to transnational corporations were removed from Agenda 21" [Thomas:12].

49 According to Cox (1993:62), among the features of international institutions which express their 'hegemonic' role are the following: (1) they embody the rules which facilitate the expansion of hegemonic world orders; (2) they are themselves the product of the hegemonic world order; (3) they ideologically legitimate the norms of the world order; (4) they co-opt the elite from peripheral countries; and (5) they absorb counter-hegemonic ideas.

50 For an application of this understanding to the Office of the United Nations High Commissioner for Refugees (UNHCR) see Chimni (forthcoming).

51 This statement should not in any way be read to imply a defence of the actions of the Iraqi regime which clearly violated the norms of international law in invading Kuwait. Nor should it in any way be seen as excusing its terrible human rights record.

52 Said here makes reference to Fouad Ajami's article, 'The Summer of Arab Discontent', *Foreign Affairs*, vol 65, Winter 1990-91. See also [Aksoy and Robins 1992:202-13]. As they put it: "The war in the Persian Gulf was cast as a global confrontation between humanity and bestiality, a battle between civilisation and barbarism. This was a war to defend the principles of modernity of reason against the forces of darkness. It was in this cause that the smart weapons of the west meted out what was projected as a moral kind of violence In this cause, the angels became exterminators" (p 202).

53 See the annual Human Development Reports in this regard

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How Good Are India's Industrial Statistics? An Exploratory Note

R Nagaraj

There is a growing perception of a steady deterioration of the quality of India's industrial statistics. Is this perception justified? To find out, this study examines the quality of the Index of Industrial Production, and some aspects of the Annual Survey of Industries, and the National Accounts Statistics. The study also examines if (a) the popularly used financial indicators really reflect the underlying investment trends, and (b) the expected association between electricity consumption and industrial output holds. Though exploratory, the findings reported seem to support the growing perception.

ACCURATE and up to date industrial statistics are essential for policy, be it public or corporate, in an era of economic 'planning' or 'reforms'. There is a growing perception that the quality of India's industrial statistics has deteriorated over the years. This exploratory note seeks to find out if such a perception has any basis, with respect to some of the widely used industrial statistics.

Section I, examines the quality of the Index of Industrial Production (IIP) - the most widely used leading output indicator. Development finance institutions' disbursements of long-term credit, and mobilisation of capital in the primary stock market are widely used to forecast corporate investment activity How useful these are to predict domestic fixed capital formation is examined in Section II. In a modern industrial economy, there is expected to be a close technical relationship between electricity consumption and manufacturing output. Does such a relationship hold in the Indian context, we find out in Section III. With the rapid growth of the unorganised manufacturing, there is a widespread belief that the value added in this sector is significantly underestimated. Section IV provides some indication of this tendency. Section V discusses some evidence of growing problems with the Annual Survey of Industries (ASI). Section VI concludes by summarising the main findings of the study.

The questions asked are, how reliable are these leading (and lagging) indicators of manufacturing output and investment? Do they accurately and consistently reflect the underlying trends, given that the production and the organisational structures are becoming increasingly complex?

I
Index of Industrial Production

Index of industrial production (IIP) - available monthly, with the least time lag - is one of the most widely used leading indicators of industrial production. National Accounts Statistics (NAS) contains annual value added and capital formation estimates, with over one-year lag, separately for the registered and unregistered manufacturing. Disaggregated value added estimates for two-digit industry groups are available with over two-year time lag. The NAS is the only source of estimates for the unregistered manufacturing value added and investment. The ASI Summary Results of the Factory Sector that provide the disaggregated data – at three-digit level and by states – are available with a lag of at least three years.[1]

Manufacturing sector constitutes over four-fifths of the IIP's weightage, the remaining being mining and electricity sectors. The index is available for 18 two-digit industry groups; and for five use-based, three input-based and two sector-based categories [RBI 1986]. Source of the primary data for estimating the index is voluntary reporting of monthly output by firms with equipment investment of over Rs 20 lakh in 1980. However, since in some industries small-scale sector dominates, they are also reportedly included in the index.

Last year, after a gap of over a decade, a revised IIP was introduced with 1993-94 as the base year. Reportedly, the number of items included in the 1993-94 series is substantially larger, and it is intended to include even more items from the small sector as and when data become available.[2] Does the revised index really represent an improvement? In other words, is it better at reflecting the underlying production trends? We contend that it probably is not, for the following reasons.

Periodic revision of any index numbers is desirable to account for the changes in the composition of the basket of goods that they represent. During the 13 years since the last revision, the industrial output has grown annually at over 8 per cent, and with considerable changes in its composition. Therefore, the IIP's revision is welcome, to the extent the new index better captures the changes in the output composition. In fact, this has been a routine matter with the official agencies as the index has been revised five times since 1950, roughly once a decade.

However, the other problem remains. The inadequate and poor quality of the primary production data used for estimating the index is perhaps far more significant. Unfortunately, the revision does little to correct it. Reportedly, 18 official agencies supply the primary data for estimating the index, though most important of them all is the Department of Industrial Policy and Promotion (earlier DGTD) that provides data on the manufacturing sector.

Development Commissioner, Small Scale Industries (DCSSI) is reportedly responsible for supplying data for 18 items of this sector. However, this agency seems to be unable to do so. To quote the press release issued to notify the new IIP, "In the absence of regular monthly production data from the unorganised sector, *the item basket has been identified on the basis of data from the registered sector only*. Further, the source agency (DCSSI) could not line up the production data for the items of the revised series" (p 5, emphasis added).[3] Evidently, the index does not capture the unregistered manufacturing at all – contrary to the official claim and its endorsement by many commentators [Pradhan and Saluja 1998b].

On the face of it, there are reasons to believe that the quality of the primary data has deteriorated over the decades. In a regime of industrial licensing, firms conceivably had an interest in voluntarily reporting their output; and the official agency perhaps had some administrative powers to ensure compliance. In other words, since the data generation process was a by-product of the regulatory regime, the index was perhaps more representative of the underlying production trends.

However, since the mid-1980s – and especially since 1991 – with a steady decline and deregulation of output and investment controls, firms have little incentive to report their output to the official agency.[4] Moreover, the officials have little leverage to enforce any rule in

this regard. So, it is likely that non-reporting has gone up, and the index could have become increasingly unrepresentative.

To test this proposition, we compute simple correlation coefficient of annual growth rates of the IIP and the NAS series. This assumes that the NAS series – that is, in turn, based on the ASI data (except for the most recent two years) – is a more accurate representation of the underlying production trends. First, the correlation coefficients are estimated between the growth rates of the IIP and (i) the registered and (ii) the total manufacturing.[5] These are done for two sets of overlapping time series data: (i) 1970-71 to 1984-85, and (ii) 1980-81 to 1995-96, corresponding to IIP with base year 1970-71, and IIP with base year 1980-81, respectively.

Table 1 shows that for Period-I, the IIP growth rate is statistically significantly correlated with both the registered and total manufacturing growth rates. However, for Period-II, the correlation coefficient between the IIP and the registered manufacturing is not statistically significant. Further, if we restrict the time series in Period-II up to 1990-91, then there is no statistically significant correlation between the IIP and either registered or total manufacturing. If we take shorter time-periods, then the association becomes perverse, as illustrated in Table 2, wherein Period-II is divided into three sub-periods. Therefore, there is some basis to believe that increasingly the IIP has become unrepresentative of the underlying output trends, as reflected in the ASI data.

How does the association between the IIP and the ASI look at the disaggregated level? To find out, we do a similar exercise, by estimating correlation coefficients of the growth rates at two-digit industry groups. The answer is no, as most of the correlation coefficients are not statistically significant and, there is no systematic pattern to those that are statistically significant (Tables 3 (a) and (b)). Therefore, it is reasonable to infer that neither in the period of licensing (1971-85), nor in the regime of deregulation (1981-95) was the IIP an accurate predictor of value added at two-digit industry level.

To summarise the findings of this section:

(1) For the period 1971-72 to 1985-86 (Period-I), growth rates of IIP for manufacturing is highly correlated with those of (the registered and total) manufacturing value added. However, this association turned statistically insignificant during 1980-81 to 1995-96 (Period-II). The associations weaken further and turn perverse for sub-periods since 1980-81.

(2) At two-digit industry groups, during both the sub-periods, there is no statistically valid association between the growth rates of the IIP and (the registered and total) manufacturing value added.

From these, one can reasonably infer that the IIP never accurately predicted manufacturing growth rates at a disaggregated level. Though for the manufacturing sector as a whole the IIP could have been well used as a lead indicator for the 1970s, it cannot be used to predict manufacturing value added in a period of deregulation (in the 1980s and beyond).

Clearly, the IIP has deteriorated over the last two decades. This is mainly because the primary data that is used for computing the index has become poorer in quality and probably scarcer in quantity. The recent official press note in fact admits it: "For the registered sector... the quality of production data supplied by the major source agencies suffer from substantial non-response on the part of manufacturing units and consequential estimation resorted to by the source agencies.... *The industrial growth based on the revised IIP do not therefore, seem to reflect the perceived ground realities*" (p 5, emphasis added).

Therefore, no amount of updating and refining the IIP's weighting diagram can compensate for lack of reliable primary data that are used for computing it. Evidently, the official agency is well aware of the problem. To quote the press release once again, "In order to improve the quality of production data, the Department of Statistics is having regular interaction with the source agencies to improve their system of data collection and estimation procedures. It is expected that the quality of data will improve in the near future". How will 'regular interactions' ensure better data collection? They probably will not, unless the firms face a credible incentive (and a threat) to supply the data.[6]

II
Financial Data and Trends in Fixed Investment

Development finance institutions' (DFIs) sanctions and disbursements of long-term credit have been widely used as lead indicators of private corporate investment. This is based on Samuel Paul and Rangarajan's (1973) short-term forecasting model that has been regularly updated for over two decades now.[7] Does the flow of long-term credit really predict fixed capital formation in the private corporate sector?

To test the proposition, we computed simple correlation coefficient between the annual growth rates of fixed capital formation in private corporate sector (NAS data) and disbursement of long-term credit (both in nominal terms) for the period 1965-66 to 1995-96. Since fixed capital formation is likely to spill over into more than one year, we have also estimated the correlation coefficient with one year lag. Table 4 shows that for none of the time-periods is there a statistically significant correlation

TABLE 2: COMPARISON OF THE ASI AND IIP GROWTH RATES OVER THREE SUB-PERIODS

Average of Years	Total Manufacturing	Registered Manufacturing	IIP
1981-85	6 2	7 7	5.7
1986-91	7 5	7.5	8.9
1992-96	6 6	7 1	6.4
1981-96	8.8	7.5	7.2

Source: NAS, various issues, *Economic and Political Weekly*, Vol 29, No 29, July 19-25, 1997

TABLE 3 (a): SIMPLE CORRELATION COEFFICIENTS BETWEEN THE ANNUAL GROWTH RATES OF THE IIP AND THE NAS VALUE ADDED SERIES, AT 15 2-DIGIT INDUSTRY GROUPS

Average Growth Rate for Years	Registered Manufacturing	Total Manufacturing
1971-72/1974-75	0.168	0 480*
1975-76/1979-80	0.349	0 433*
1980-81/1984-85	–0.437	-0.230
1970-71/1984-85	0.176	0.100

Source. Same as in Table 2.

TABLE 3 (b): SIMPLE CORRELATION COEFFICIENTS BETWEEN THE ANNUAL GROWTH RATES OF THE IIP AND THE NAS VALUE ADDED SERIES, FOR 15 2-DIGIT INDUSTRY GROUPS

Average Growth Rate for Years	Registered Manufacturing	Total Manufacturing
1980-81/1984-85	0.128	(–) 0.170*
1985-86/1990-91	(–)0 223	0.694*
1991-92/1994-95	0 450*	(–)0 278
1980-81/1994-95	(–)0.241	0 430

Source. Same as in Table 2.

TABLE 1: SIMPLE CORRELATION COEFFICIENTS BETWEEN ANNUAL GROWTH RATES OF IIP AND NAS MANUFACTURING VALUE ADDED

Correlation Coefficient between IIP and NAS	Period I (1970-71/1984-85) (1)	Period II (1981-82/1995-96) (2)	Period III (1981-82/1990-91) (3)
Registered manufacturing	0.741*	0 440	(-) 0 403
Total manufacturing	0.701*	0 706*	(-) 0 007

* Statistically significant at 5 per cent confidence interval, in a two-tailed test.
Source: *NAS* and *Economic Survey*, various issues.

between the DFIs disbursement and corporate fixed investment. However, during the period of industrial licensing (1995-80) the correlation is valid with one-year lag. But this ceases to be so in the period of deregulation (1981-96), suggesting that while long-term lending could have been used as a lead indicator in a period of investment licensing, it cannot be used in the liberalised regime. The absence of the association in recent years is widely believed to be due to DFIs' growing practice of 'ever greening': loans disbursed to defaulters that are often used to repay old debts. As the data on disbursements net of ever greening are not publicly available, the widely held belief cannot be tested.

Similarly, in recent years, capital raised by initial public offering in the primary stock market is also widely used to predict corporate investment trends in the short to medium term. This measure too has an intuitive appeal. But is it empirically valid? Table 5 shows that these results are similar to the above findings: In the regime of industrial licensing (1962-80), total capital raised in the primary stock market is positive and statistically significantly correlated with corporate fixed investment. This is true even with one-year lag. But the relationship ceases to exist since the 1980-81. Therefore, in the present context, the primary stock market mobilisation has little relation to corporate fixed investment.

III
Electricity Consumption and Industrial Output

Since almost all modern manufacturing industries use electricity as motive power, and since there is a broad technical relationship between electricity use and value added, growth in electricity consumption, in principle, can be used as a proxy for industrial output growth. To test this proposition, we estimated simple correlation coefficients between annual growth rates of industrial output and electricity consumption (Table 6). None of these correlation coefficients are statistically significant, though all of them have the expected positive sign. Since, in principle, there is a technical relationship between the two variables, lack of correlation suggests incorrect recording of inputs and output.

IV
Underestimation of Unregistered Manufacturing Output

Over a long period, there is a positive and statistically significant correlation between the growth rates of the registered and the unregistered manufacturing value added that are reported in the NAS. Therefore, one may believe that the growth rates of unregistered sector are reasonably satisfactory, despite some widely known output underestimation (of level of value added) in this sector.[8] However, careful micro studies have repeatedly hinted at the growing manufacturing activity in unregistered sector that escapes the official estimation. While such a criticism has an intuitive appeal, it has been difficult to substantiate it in the aggregate. We now provide some evidence that seems to lend credence to the widely held suspicion.

Between 1977-78 and 1993-94, while the unregistered manufacturing sector's share in total manufacturing value added declined by 4 per cent, its share in total manufacturing employment has increased by 5.1 per cent (Figure 1).[9] These changes can be reconciled only under the assumption that the growth rate of value added per worker (labour productivity) in unregistered manufacturing has been growing slower than that in registered manufacturing.[10]

Since value added in unregistered sector is a product of (i) number of workers and (ii) benchmark estimates of value added per worker, the underestimation could be because of either variable. A preliminary scrutiny ruled out underestimation of number of workers, as they seem to be based on decennial census and the NSS estimates. Since the estimates of value added per worker are allegedly outdated, this possibly accounts for the underestimation of value added.

This seems to be borne out by the exercise reported here, examining the relative movements in the growth in value added per worker, and fixed capital stock per worker during 1981-91 in the registered and unregistered manufacturing sectors. It was found that for 100 units increase in fixed capital per worker in registered manufacturing, value added per worker increased by 156 units. However, in unregistered manufacturing, the corresponding increase in value added per worker was only 88 units. Relatively slower growth of value added per worker in unregistered manufacturing seems to suggest underestimation of value added in this sector due to usage of outdated parameters.

The parameters could be outdated (or under-reported) for the following reasons.

Table 4: Simple Correlation Coefficient between Nominal Annual Growth Rates of DFIs' Disbursement and Corporate GFCF

Years	No of Observations	Correlation Coefficient	With One-Year Lag: No of Observations	With One-Year Lag: Correlation Coefficient
1965-66/1979-80	15	0.0	14	0.662*
1980-81/1995-96	16	0.0	15	0.158
1965-66/1995-96	31	0.0	30	0.540*

*Statistically significant at least 1 per cent level.
Source: *RBI Currency and Finance*, and *NAS*.

Table 5: Simple Correlation between Annual Growth Rates of Nominal Captial Raised in Stock Market and Gross Fixed Capital Formation in Private Corporate Sector

Years	No of Observations	Correlation Coefficient	With One-Year Lag: No of Observations	With One-Year Lag: Correlation Coefficient
1961-62/1979-80	19	0.446*	18	0.424*
1980-81/1995-96	16	0.101	15	(-)0.215
1961-62/1995-96	35	0.246	34	0.068

Significant at 5 per cent level, * significant at 10 per cent level.
Source: Same as in Table 4.

Table 6: Correlation of Growth Rates of Electricity Consumption and Industrial Output

Correlation Coefficient between	Years	No of Observations	Coefficient of Correlation
(i) IIP manufacturing and energy sales	1981-82/1993-94	13	0.426
(ii) Real GDP in regd mfg and energy sales	1981-82/1993-94	13	0.276
(iii) Real GDP in total mfg and energy sales	1981-82/1993-94	13	0.284
(iv) Real GDP in red mfg and real value of fuel used	1973-74/1993-94	20	0.243

Notes: In (i), (ii) and (iii) above, energy sales refer to public utilities' sale of electricity to industry in physical quantity. In (iv), it is value of fuel consumed by registered manufacturing industries as reported in the *ASI* deflated by price index for fuel.
Source: *NAS, ASI*, and *Public Electricity Supply: All India Statistics*, various issues.

FIGURE 1: UNREGISTERED MANUFACTURING SECTOR'S SHARE IN TOTAL MANUFACTURING EMPLOYMENT AND VALUE ADDED

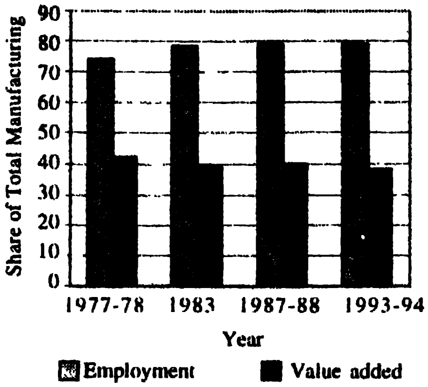


FIGURE 2: SHARE OF FACTORY SECTOR IN CENSUS MANUFACTURING EMPLOYMENT

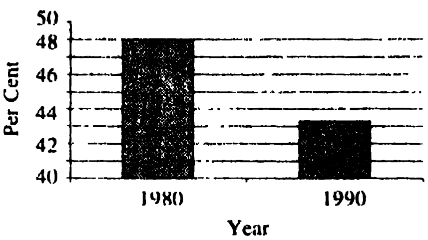
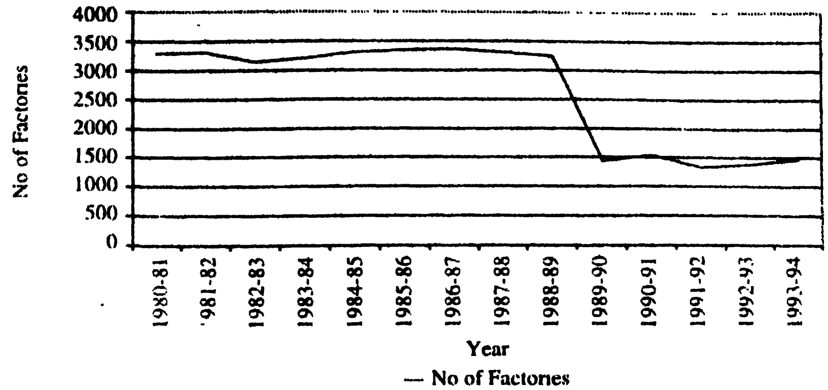


FIGURE 3: NO OF FACTORIES IN STEEL INDUSTRY (NIC 331)



First, labour productivity could have significantly gone up with diffusion of electricity as motive power that has occurred during the last two decades. Second, unregistered manufacturing has witnessed a steady growth in fixed capital formation, thus indicating a steady growth in potential output. Finally, since unregistered manufacturing, unlike the registered sector, operates under competitive conditions (due to low entry barriers), it is reasonable to argue that investment and employment growth in this sector would have occurred mainly under private profitability considerations. In other words, on the face of it, growth in wage employment and fixed capital formation in this sector is unlikely to have occurred unless the increase in labour productivity more than compensated the cost of capital and labour. Therefore, we have a reasonable basis to argue that parameters of value added per worker used for unregistered manufacturing are likely to be underestimated, which accounts for the growing underestimation of value added in this sector.

V
Annual Survey of Industries

In principle, all factories registered under the Factories Act (under section 2m(i) and (ii)) are included in the Annual Survey of Industries (ASI). The universe of the ASI is the live register of factories maintained by the Chief Inspectorate of Factories in each state. Therefore, the ASI's coverage can only be as good as the factories' list. Under the Collection of Statistics Act (and related laws), all registered factories are expected to file an annual return. Every year, the CSO conducts a census of all factories employing 50 workers and above (100 workers and above without using power). Sample surveys – covering one-half of all registered factories employing between 10 and 50 workers (20 and 100 workers without using power) – are conducted every year.[11]

How good are these estimates? Reviewing the methodology, Pradhan and Saluja (1998a) said, "For the organised manufacturing industries fairly reliable data are available annually, but with a considerable time-lag" (p 1270). This view needs to be re-examined for three reasons: (i) incomplete coverage of factories, (ii) under-reporting of workers in factories covered, especially in small factories, and (iii) under-reporting of value added.[12] With the size structure moving towards the smaller sized factories within the factory sector and into the unorganised sector, (i) and (ii) are believed to have increased significantly [Nagaraj 1994].

To illustrate the extent of non-recording of factories and changes in them, we compared the number of factories in ASI in manufacturing with number of establishments in manufacturing employing 10 or more workers in economic censuses of 1980 and 1990.[13] In 1980, number of factories in ASI formed less than one-half (48 per cent) of manufacturing establishments in the census. Even if a variety of manufacturing establishments are exempt from the Factories Act, the fact that over 50 per cent of them have not registered under the act suggests a gross extent of under-reporting of factories (Figure 2). This is consistent with evidence from many micro level studies. More significantly, the proportion of factories registered under the Factories Act fell by 5 per cent, to 43 per cent in 1990 suggesting a rapid growth of under-reporting of factories.[14]

This finding can be corroborated with other evidence as well. During 1980-90, when registered manufacturing value added grew annually at over 8 per cent, with a steady delicensing of investment and output controls resulting in considerable new entry into manufacturing industries, yearly trend growth in number of factories was as low as 0.9 per cent.

Under-reporting of value added is another important problem that has been repeatedly pointed out by careful studies. Raj (1986) suggested serious underestimation of value added in registered manufacturing due to growing tax evasion.[15] More recently, T N Srinivasan (1994) reiterated the same point: "... given the incentive for evasion of excise and other taxes, there are reasons to believe that value added data may be biased and the extent of the bias could be varying over time" (p 9).

The above mentioned problems of increasingly poor coverage and probable under-reporting of value added can be

TABLE 7: GROWTH IN STEEL INDUSTRY

(Average annual growth rate)

Years	Finished Steel (in Physical Units)	Hot Metal (in Physical Units)	Real Gross Value of Production (*ASI* Series)	Real Gross Value Added
(i) 1980-81/1994-95	5 7	5.1		
(ii) 1985-86/1994-95	5 7	5.6		
(iii) 1981-82/1994-95		5 4	4.1	5 4
(iv) 1985-86/1994-95			6.7	5.9

Note: Gross value of output and gross value added include NIC 330, 331, 332.
Source: *ASI Summary Results and SAIL YearBook*, various issues

illustrated by the following example of steel industry. As shown in Figure 3, number of factories in 3-digit industry 331 ('manufacture of semi-finished iron and steel products in re-rolling mills, cold-rolling mills and wire drawing mills) has sharply fallen from about 3,200 till 1988-89 to about 1,400 thereafter. On the face of it, it could be due to a reclassification, to accommodate a change over from NIC 1971 to NIC 1987 But a close perusal of data did not suggest any corresponding increase in other steel related 3-digit industry groups. Therefore, we suspect that enumeration has become incomplete, unless there is evidence of a large-scale plant closures.

The sharp fall in number of factories in this industry is in contrast to other evidence, mainly from the corporate sector.[16] Since mid-1980s, in response to delicensing, there has been considerable expansion of existing firms, and new entry into the industry. Moreover, there seems to have been a change in the product mix in favour of 'flat' products and technological upgradation leading, in principle, to greater value addition per unit of output – for example, automobile grade flat products of thinner gauge and greater width.

Table 6 shows estimated growth rates of output from *SAIL Year Book*, and real gross value of production and gross value added using *ASI* data. Evidently, growth rates reported by different measures are roughly of same orders of magnitude. However, given the changes in the industry since delicensing in mid-1980s, many indications suggest an increase in value added to value of production ratio. Since this is not revealed in the growth rates reported above, one suspects that value added estimates may be underestimated.

VI
Summary and Conclusion

Reliable and up to date statistical information is vital for economic decision-making, both at the micro and at the macro level. This exploratory note tried to assess the quality of some of the widely used industrial statistics. IIP is the most widely used leading indicator of output trends, as it is available monthly, with least time lag, and with analytically meaningful disaggregation. NAS is the only source of data for the unregistered manufacturing value added and capital formation. ASI provides detailed information on registered manufacturing, though with considerable time lag. Long-term credit by development finance institutions (DFIs) and the initial public offerings in the primary capital market are also widely used to predict fixed investment trends in the private corporate sector.

How reliable are these data sources? Have their quality deteriorated over time? This note sought to answer these questions, using simple correlation coefficient method to time series of annual growth rates. The following are the main results. (1) Annual growth rates of the IIP for manufacturing and value added in manufacturing (registered and total) sector are highly correlated, for the periods 1971-85 (Period I). But the association turns statistically insignificant for 1981-96 (period II), and parts thereof. Correlation between the IIP and the ASI for cross-section of 2-digit industry groups is not statistically significant for both the time periods. Since the IIP is a lead indicator, it could have been used to predict value-added trends in Period I, that is, during the regime of investment and output licensing. However, it cannot be used in the same way in the liberalised regime (Period II). The study supports the view that the quality of IIP as deteriorated since the 1980s with gradual industrial

deregulation, as much of the primary data for estimating the index was a by-product of the regulatory regime,

(2) Widely used information on (i) development finance institutions' sanctions and disbursements of term loans and (ii) capital raised in the primary capital market is not correlated with fixed capital formation in the private corporate sector since 1980-81. Therefore, this financial information is a poor predictor of the real trends in the deregulated regime.

(3) In principle, though there is a strict technical relationship between electricity use and manufacturing value added, in reality this association was not found to exist in India. This finding questions the quality of the recorded information on electricity input and value added estimates.

(4) During 1977-78 and 1993-94, while the employment share of unregistered sector in total manufacturing has gone up, the corresponding value added share went down. These inverse movements can be reconciled only under the assumption that the labour productivity growth in unregistered manufacturing is lower than that in the registered sector. A closer examination seems to strengthen the suspicion that the parameters of value added per worker used in computing output could have been seriously underestimated.

(5) In recent times, the ASI seems to underreport number of factories and hence value added even in a well-organised industry like steel. It, therefore, raises suspicion that the quality of the ASI data is declining in recent years.

Admittedly, results of this exploratory effort have yielded only bits and pieces of evidence on the quality of the data. They nevertheless seem to tell a reasonably consistent story: India's industrial data system has weakened over the years, and therefore the information may not reliably capture the underlying real tendencies. Many of the widely used indicators and presumed technical relationships have little empirical validity. This finding supports the popular perception of the deteriorating data quality. If this inference is correct, then there is an urgent need for a thorough re-examination, and revamping of the statistical system.

Notes

[Following the usual disclaimer, the author thanks K V Ramaswamy, M H Suryanarayana and A Vaidyanathan for their detailed comments and suggestions on earlier versions of this study.]

1 For a detailed account of the strengths and limitations of all these sources of data, see Pradhan and Saluja (1998a).

2 Pradhan and Saluja (1998b) gives details of the revision that the IIP has recently undergone.

3 Brief Note on the Revision of Base Year of Index of Industrial Production from 1980-81 to 1993-94 (undated).

4 In fact, the CSO officials have admitted this. To quote Kulashrestha and Kolli (1995): "After liberalisation, some of the major units including some of the PSUs have not been furnishing returns. This makes the estimation procedure for non-responding units very difficult in the absence of information on whether the unit is in existence or closed, or on strike or on partial operation. Government's efforts to persuade the units to furnish returns now met with little success. The GOI have subsequently issued a Press Note ... reiterating the requirement of submission of returns by the industrial undertakings to concerned technical agencies. Despite this, the coverage of units has been steadily declining". (p 125)

5 Unless otherwise mentioned, all variables in this paper are in real terms.

6 A report in *The Times of India* (January 16, 1999) said, 'The Department of Statistics has not released the industrial production figures for November 1998 on the ground that the data provided by the department of industrial policy and promotion (DIPP) on manufacturing sector 'suffers from lack of quality' ... 'Despite repeated efforts, the DIPP .. has not furnished the information regarding itemwise response rate as well as the method of estimation or non-response' Mr Asthana [Secretary -in the department of Statistics] said (p 17)

7 Till 1982, Rangarajan's forecast of corporate investment was reported in the *Economic and Political Weekly* In the recent years, these were officially estimated, and reported in the *Reserve Bank of India Bulletin*.

8 There have been many studies on the 'black economy' that in fact looked carefully at specific unorganised manufacturing industries like power loom weaving, dyestuffs, etc. Most of them estimate the extent (level) of underestimation without saying if the black economy is growing faster than the measured economic output.

9 This method of looking at the relative employment and value added shares to detect output underestimation is an old one, widely used in studying the long term trend by Arthur Burns and Simon Kuznets.

10 Sources of data for Figure 1 are, NSS employment and unemployment surveys, and *NAS*, various issues.

11 For a careful and fuller description of the ASI's methodology, see Pradhan and Saluja (1998a)

12 Growing non-response to ASI is widely believed to be yet another reason for deteriorating data quality On a closer examination, we did not find any statistically significant deterioration in the extent of non-response over the period 1980-81 to1994-95.

13 These figures refer to all-India, excluding Assam, as the censuses were not conducted in that state.

14 This evidence on the growing extent of nonregistration of factories under the factories act seems to reinforce findings of many fieldwork based micro studies [Nagaraj 1989; Singh 1990]. But what is more surprising as we discovered during our field-work in Bangalore city in mid-1980s, was that many medium sized factories that we had personally visited were missing from the factories' list. Though we do not have documentary evidence to support our case, we do believe there is a case for examining the quality of the factories list maintained by the Inspectorate of Factories

15 To quote Raj (1986:11) "The number of 'registered firms', i e, those registered with income tax authorities, has been increasing at a phenomenal rate from about the middle of the 1960s. Many of them are known to be used by manufacturing enterprises as commission agents for purchase of inputs and sale of products, thereby siphoning away profits through various forms of transfer pricing. Underestimation of value added in this manner has been therefore probably increasing in scale through this period".

16 After delicensing of steel industry in 1985 there was considerable new entry into the industry as evident from capital mobilised in the primary stock market and term loan granted by development finance institutions. Of the 48 listed 'mini steel' companies listed in Bombay Stock Exchange in 1997, half entered the industry after 1985. For detailed statistical information, see the annual report of the Department of Steel, 1997 98.

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Decentralisation: Some Initiatives in Health Sector

Devendra B Gupta
Anil Gumber

There have been two major kinds of reforms affecting the rural health services. One is the introduction or expansion of user fees and the other is the devolution of central responsibilities to lower levels of government. This paper reviews the various initiatives towards decentralisation in the formulation of the several World Bank assisted projects in population, health and nutrition with a focus on the problems which may arise in the effective implementation of the policy.

I
Introduction

GOVERNMENT-RUN rural health services in developing countries, including India, are highly centralised with very little local autonomy either over programmes or resources. This centralisation is commonly cited as the source of several typical problems: (a) Services are unresponsive to local demands and needs, partly because the population has few alternatives, (b) In spite of low overall coverage of services, there is excess capacity in infrastructure, with corresponding shortages of supplies and sometimes of staff; (c) Staff are assigned, rotated and paid with no relation to output of services or client satisfaction, are often inadequately or under-trained, ill-equipped, and commonly indulge in private practice; and (d) Referral systems do not work, so many patients bypass the rural health infrastructure, and when they can, go directly to hospitals, raising costs and leading to more hospital and less lower-level investment in facilities.

In contrast, the privately-run and NGO-run services are almost totally decentralised. This is often mentioned as the reason why they are preferred most and more satisfactory to clients who are willing to use them despite higher fees and/or average quality than they receive in the public sector. However, it is difficult to disentangle the effect of decentralisation from that of greater resource availability in explaining which services work better.

In recent years, there have been two major kinds of reforms affecting public sector rural health services. One is the introduction or expansion of user fees with varying degrees of local control over their use; typically some fraction of revenue is left to local discretion or is allowed for non-salary expenditures such as on drugs. Salaries continue to be paid centrally. This kind of reform for instance has recently been introduced in Andhra Pradesh, Karnataka, Punjab and West Bengal, under the World Bank assisted State Health System Project. The other reform is the devolution of central responsibilities to lower levels of government (district and sub-district levels). This change may or may not always be accompanied by a comparable financial and administrative transfer. The panchayats in India are examples in question. It is also evident that it matters not only who pays and controls various rural health and family welfare services, but also exactly how funds are transferred to service providers. In this context what is more important is the mechanisms rather than the sources.

The World Bank Development Report (1993), *Investing in Health*, points out that "a policy that can improve both efficiency and responsiveness to local needs is decentralisation of the planning and management of government health service". After making this assertion, the report shows its awareness of many problems that have arisen in countries where decentralisation has been attempted. The report, further points out that "there have been some successes, however, that offer lessons for other countries". Ugalde and Jackson (1995) in their critique of *Investing in Health* find the report's recommendation for decentralisation problematic and concur with Collins (1989) that "... decentralisation is a complex process and cannot be recommended across the board (as the World Bank has done) without taking into account historical, political, social and geographical realities".

In this paper an attempt is made to briefly trace various initiatives towards decentralisation in the formulation of several World Bank assisted projects in the population, health and nutrition (PHN) sector in India over the course of last 20 years or so. We also focus on problems which are likely to arise in the effective implementation of a policy of decentralisation in India. To begin with we provide a brief background about the process of decentralisation which has been taking place for a long time, and which has now culminated in the amendment of constitution to provide for panchayati raj institutions (PRIs) in the country [For a detailed review of panchayati raj see World Bank 1997]. This is followed by a description of the organisational structure of health system in India.[1] *Inter alia* the paper also attempts to indicate the extent to which PRIs could be linked to the health sector. This is followed by a brief description of the elements of decentralisation that are incorporated in the World Bank assisted project in the PHN sector.

First, a word about the meaning of decentralisation. In our analysis it would imply the devolution of power and resources to the district and lower levels of health administration. In its most developed form the centre and states would provide only a broad guiding framework and the financial resources to the lower administration levels, leaving planning, implementation, and monitoring to these levels. The centre still needs to formulate national policies, including ethical standards and principles of social justice – for example, issues of equity in the introduction of medical technical innovations – and evaluate the overall achievement of public health objectives. Decentralisation strategies should therefore endeavour to find a balance between these central tasks and decentralised tasks.

II
Decentralisation in India

The village institutions in India have now been in existence for a long time. They were called panchayats – a council of five persons in a village. While over time the autonomy of these panchayats gradually disappeared owing to the establishment of local civil and criminal courts, revenue and police organisation,

increase in communications and the growth of individualism, the Constitution of India however rightly recognised the need to revive these institutions.

With the inauguration of the Community Development Programme in October 1952, the blocks (consisting of about 150-200 villages) became the units of development administration within the existing districts. In 1957, the Balwantrai G Mehta Committee recommended the establishment of a three-tier panchayat raj system – the middle tier namely, panchayat samiti at the block level, playing a pivotal role in the scheme of decentralisation. While the village (or gram) panchayat constituted the lowest tier, the zilla parishad with the district collector as the chairman, constituted the top tier.

While the functions entrusted to the village panchayats included village roads, community wells, maintenance of public parks, tanks, irrigation works, public hygiene, drainage, and other civic services, the zilla parishads were made responsible for primary education, as also with functions relating to rural industries, primary health care, medical relief, women and child welfare, maintenance of common grazing grounds and other community lands and properties and provision of inputs for agricultural production. The extent and tempo of the involvement of the panchayati raj institutions in basic planning and implementation of development projects however differed considerably both between states and within states.

This phase of ascendancy in the history of the panchayati raj in India continued till 1964. This was followed by a phase of stagnation (1965-69) and then of decline (1969-77). This was largely due to erosion in commitment over time to democratic values. Also the flow of funds for block development slowed down. Where the party in power apprehended poor performance in the polls to PRIs, the tendency was to postpone the elections indefinitely. The decline was conspicuous in almost every state except Maharashtra and Gujarat, where the primacy was with the top tier, namely the ZPs which had considerable administrative powers.

The revival of interest in panchayati raj came about with a change of government at the national level during 1977. The committee set up under the chairmanship of Ashok Mehta re-emphasised the importance of panchayati raj, and recommended a two-tier structure – zilla parishad at the district level and mandal panchayat (MP) for a group of villages, with a population of 20,000-30,000 (i e, below the block level), the key level being the ZP. It also recommended that the district should be the first point for decentralisation and favoured the official recognition of the participation of political parties at all levels of panchayat elections.

An all round awareness for reforms in panchayati raj system was thus created at that time. Also the attempts in Karnataka and Andhra Pradesh to create new PRIs highlighted the need to transfer power of the state to democratic bodies at the local level. A committee was then set up to prepare a concept paper on the revitalisation of PRIs. Among other things, the committee recommended that local self-government should be constitutionally recognised, protected and preserved by the inclusion of a new chapter in the Constitution. It also recommended a constitutional provision to ensure regular, free and fair election for the PRIs and suggested that the election committee be made responsible for this task. The government therefore, introduced a comprehensive amendment bill on September 16, 1991 and eventually the Constitution (73rd Amendment) Act, 1992 was brought into effect from April 24, 1993.

Salient Features of 73rd Amendment

This act envisages the establishment of panchayats as units of local self-government. Adequate powers and responsibilities would be devolved upon these panchayats at the appropriate level to enable them to prepare and implement schemes for economic development and social justice.

The gram sabha or village council has been envisaged as the foundation of the panchayati raj system. It shall perform such functions and exercise such powers as may be entrusted to it by the state legislatures. There shall be three-tiers of panchayats at the village, intermediate and district levels. Only states having a population, not exceeding 20 lakh, have the discretion not to constitute the panchayats at the intermediate level. All seats in a panchayat at every level are to be filled by direct elections from territorial constituencies demarcated for this purpose, with the ratio between the population of such constituency and the number of seats allotted to it being the same throughout the panchayat area.

Further, a distinguishing feature of the panchayati raj legislation is to involve the backward and deprived sections of the society by providing reservation of seats at every level to the SCs/STs in proportion to their population in a given panchayat area and for women to the extent of not less than one-third of the total number of seats. The term of office of panchayat at every level is five years and elections are to be completed within six months from the date of dissolution or expiry. There is also a provision of constituting a Finance Commission every fifth year in every state to go into the principles governing the distribution and devolution of financial resources between the state and the panchayats at every level and the measures to improve the financial position of the panchayats.

A new schedule called the Eleventh Schedule comprising of 29 items has been added to provide an effective role to the PRIs in the planning and implementation of works of local significance ranging from drinking water, agriculture, land and water conservation to communications, poverty alleviation programmes, family welfare, education, libraries and cultural activities, maintenance of community assets, etc.

The preceding discussion would show that the Constitution (73rd Amendment) Act, 1992 would be able to break a new ground. The PRIs set up under this act would serve as principal vehicles of development of rural areas in spheres assigned to panchayati raj institutions at various levels. For effective functioning of these institutions both political will and administrative back up would be needed. This would to a great extent depend upon the initiative of various states. Devolution of powers and assignment of functions are also under way. A new challenge is posed and it is expected to improve the quality of implementation, as PRIs are indeed ideally suited for effective implementation of the programmes entrusted to them.

III
Organisational Structure of Health Care Administration

The organisational set up of health administration in India is guided by the Constitution according to the items such as public health and sanitation, hospitals and dispensaries, etc, are included in the state list, while items like population control, medical education, adulteration of food stuffs, medical profession, registration of births and deaths and lunacy and mental health, etc, fall under the concurrent list.

The union ministry of health and family welfare (MOHFW) is in practice entrusted with the responsibility of implementing many programmes of national importance such as family welfare, primary health care services, prevention, control and

eradication of major communicable diseases. The MOHFW has several centrally-sponsored schemes which are implemented by the states. The MOHFW has three departments, department of health, department of family welfare and the department of Indian System of Medicine each headed by secretary to the government of India. There is also the Directorate General of Health Services which is an attached office of the MOHFW While in theory, each state can formulate its own health policy, financial constraints and other factors inhibit such a course of action. In practice state governments have to function within the parameters of the national health policy laid down by the union government in 1983. Also the government of India provides the link and regulates the relation between the state governments and international agencies such as the WHO, UNICEF, UNFPA and the World Bank Besides, having the responsibility of providing co-ordination between the state governments and itself, the union government sponsors numerous schemes through provision of finance and other inputs for their implementation through the state governments. It may be noted that despite restrictions on the freedom of the state agencies due to these factors, there is ample scope for the states to administer the schemes suiting local conditions within the overall ambit of national policies.

The broad administrative structure for health in various states is more or less similar except with some minor variations. At the headquarters in a state capital, there are two levels, the secretariat and the directorate of health services.

Generally at the highest level, there is a department of health and family welfare located in the secretariat which is headed by a minister, generally of cabinet rank, as health is considered to be an important state subject. At the official level, the department is headed by a secretary who usually belongs to the Indian administrative service. Assisting him are additional secretary/joint secretary (IAS), deputy secretaries, under-secretaries and other office functionaries. The department of health at the secretariat level is concerned with the formulation of policies, besides dealing with all legislative matters including the making of rules and regulations on matters of health and administration. The secretariat also helps the health minister in the discharge of his responsibilities to the state legislature by providing necessary information and assisting in answering questions raised by the legislators

All important proposals or schemes relating to health are submitted by subordinate agencies for approval and sanction of the secretariat. It also broadly supervises, regulates and controls the activities of the notifications and the issue of circular memoranda and government orders. The department, besides receiving periodic reports and returns, reviews the progress of work through inspection and other ways. The secretariat exercises considerable authority both in personnel and financial matters. In some states there are separate secretariat departments for health and family welfare (e g, Tamil Nadu and Karnataka) while in others (as in Andhra Pradesh) they have a health, medical and family welfare department as these subjects are related.

The state directorates function as technical wings of the state departments of health services. These directorates are responsible for implementing the health policies of the state governments by maintaining proper technical standards. The precise administrative arrangement at the level of the directorate however varies slightly from state to state. For instance in some states (such as in Tamil Nadu) there is more than one directorate separating medical care and medical education from the public health. The underlying rationale for moving away from one single directorate to more than one directorate is the expansion of health services in the country in the last couple of decades. It may be pointed out that there is hardly an underlying rational for bifurcation or unification of the directorates in different states. This is in an arbitrary manner, sometimes to accommodate or to prevent some one from holding the position of the director.

For administrative reasons the states are divided into a number of zones or regions through which the directorates supervise and control the field operations. For instance in Andhra Pradesh, there are six regional directors for six zones. This came into effect in 1978. Each regional director has the responsibility for the management of health and medical programmes in his jurisdiction. He also looks after the personnel and establishment matters in his assigned area. In Karnataka also there is decentralisation of supervisory authority at the divisional level. Thus there are four divisional directors with Bangalore, Mysore, Belgaum and Gulbarga to look after all health and family welfare activities in the respective divisions. The large hospitals are excluded from their purview.

The district level is most crucial in the chain of command of the public health department. Many of the decisions having bearing on day-to-day operation of health centres are made at this level only. Hence the effective implementation of various health policies and programmes largely depends upon the supervision and control exercised by the district officers over the management of health centres in the district. It is also at this level that co-ordination and liaison with other departments and agencies of the government takes place under the overall supervision of either the district collector or the zilla parishad president. Such an arrangement is helpful in ensuring effective implementation of various national health programmes where several agencies as environment, forestry, etc, may be involved with the health department. In districts, the district health officer/chief medical officer is the in-charge of managing medical and health services and family welfare. The district hospitals are usually under the charge of civil surgeons However, for family planning programme, there are separate district family welfare officers.

Most district health officers are assigned considerable administrative work leaving them with very little time for technical supervision of the field services including for undertaking visits to primary health centres and other clinics under their jurisdiction. Also most inspectors are found to be casual and ritualistic in nature, thus serving very little purpose. Also very seldom any note is taken of erring medical officers of the primary health centres and reports concerning even their unauthorised absence for long periods are seldom tackled at the state headquarters. In view of this callous attitude of officials at the state headquarters level towards complaints, hardly anyone worries about reporting lack of equipment and non-availability of drugs to the health centres. On the other hand we find that decentralisation of supervisory functions to the sub-district level in Karnataka, for example, has generally proved beneficial. Of course, the success of such a step will be largely linked to the kind of officers posted there. It is here that the role of peoples' representatives in health administration, especially in monitoring the functioning of health centres including ensuring the regular attendance of medical/para-medical staff can be crucial and needs serious consideration.

At the district level and below, the revenue department and the zilla parishads play crucial roles in the provision of medical and health services to the citizens in several ways. As the chief co-ordinator at the district level, the collector or the chief executive officer of the zilla parishad

icts as a link between the health department and all other public agencies. The development commissioner who is also the collector also becomes responsible to look after the welfare of people in rural areas. In the early phase, the district collector used to exercise considerable influence in the location of the primary health centres in the district. The revenue department also plays an important role in helping the acquisition of land for housing of the primary health centres. The revenue department is also concerned with the collection and transmission of vital statistics to the health department. They also report the outbreak of the epidemics. Similarly, in the case of famine relief works and at the time of fairs and festivals, the revenue department or the zilla parishad extend their co-operation to the health department. The district collector/CEO can also exercise authority in respect of public health as for example ordering mass inoculations, destruction of infected food or drugs, etc.

The primary health centres operate from the headquarters as well as from the sub-centres. The staffing pattern in the centres have undergone a change over a period of time. There are of course minor variations in the staffing pattern from one state to another.

IV
Role of Decentralised Institutions in Health Delivery

In the preceding section we had outlined the structure of health administration in India with special reference to rural areas. It was seen that these essentially comprised of district hospitals at the top with community health centres, primary health centres and sub-centres at the lower levels. There is also standard staffing pattern for each of these health delivery system. While a PHC has one medical officer in-charge of the centre, the CHC has four medical officers who are qualified/trained to work as obstetrician, surgeon, paediatrician and physician, one of whom should have public health qualification. We saw that under the new pattern of decentralised governance, the chief executive officer of zilla parishad and the executive officer of panchayat samiti in most states have powers to exercise control over the medical officers; their recruitment and punishment is generally outside the purview of the PRI officials. However, the PRI officials are able to exercise effective control over the health functionaries through annual confidential reports.

In evidence collected on the working of PRIs in four states it is found that panchayati raj institutions have a definite role in improving the quality of health care services, especially through ensuring better attendance of health care functionaries at the local level, as well as in putting moral pressure on the staff not to shirk from work. Also the watchful participation of local communities has helped to an extent in improving the supplies of drugs and equipment through assisting the local staff of health care centres in bringing the deficiencies in the supplies to the notice of higher authorities. Another crucial role which can be assigned to the PRIs concerns the supervisory and monitoring role in preventive health care. The PRIs can also contribute significantly to programmes of health education.

We do not expect much to be achieved by succumbing to giving too many powers to PRIs. We expect a real possibility of clash between the state and PRIs when different parties control the state administration and administration of the PRIs.

The feeling one gets from the experience of the study states is that decentralised governance and local level participation can contribute importantly to improving the health care system, not only through better monitoring and supervision of the functioning of the health system at the local level but also assisting a developing plans which take care of local perceptions and hence else to demand situation for specified type of health care services appropriate to local needs.

As indicated, prior to the Constitution (73rd Amendment) Act, panchayats in different states had their own respective set up. There is however now a common pattern of organisational set up of panchayats with, of course, some minor variations. In major states, it is a three-tier system, with a senior civil servant serving as the chief executive officer of the zilla parishad. While various states have enacted their respective acts as required by the 73rd Constitution Amendment, follow up action is being taken by the different states at their own pace. Clearly, the actual functioning of the panchayat system will, to a great extent, depend on the degree of commitment on the part of various state governments.

We however envisage some problems that may arise in the effective functioning of the panchayat system. First, as the panchayats have been entrusted with a number of development and other functions, better co-ordination of PRIs with different state agencies particularly the line departments operating in the district would be needed. This would necessitate developing a proper and viable co-ordination mechanism. In this context, the Karnataka seems to have an edge where

Statement: Extent of Decentralisation in the World Bank Assisted Health Projects

Project	Level of Decentralisation: Administrative Implementation	Managerial Monitoring	Financial	Partners at Grass Roots
1 National Tuberculosis Control Project	District society	Poor, through District TBC	Directly from MOHFW	Active involvement of NGOs in some areas
2 National Cataract Blindness Control Project	District society	District Programme Co-ordinator	Directly from MOHFW	Stress on NGOs and Private Ophthalmologist; Lack of Co-ordination
3 National Leprosy Elimination Project	District society	Poor, through Supervisor and Paramedical Worker	From GOI to States to Societies	Poor Participation of NGOs
4 National Malaria Eradication Project	PRIs and local Malaria societies	Poor, only at the State Level	Funds Disbursed to PRIs	Community-based Approach and Malaria Link Volunteers
5 Family Welfare Project	Three-tier system and setting up of FPAI and SCOVA at the District Level	State Level Management Units	From GOI to State	Limited Community Participation
6 Reproductive and Child Health Project	District Family Welfare Bureau and PRIs	Target Free Approach, However Direct Monitoring of GOI on Poor Performing Districts	From GOI to State and Directly from GOI to SCOVA and First Referral Unit	Emphasised on active Involvement of NGOs, PVOs, CHWs and AWWs

all heads of technical line departments in the district are under the charge of chief executive officer of the zilla parishad. Similarly, while some states have brought the District Rural Development Agency (DRDA) under the control of zilla parishad, there are many states which are reluctant to do so. Since 29 items have been listed to be dealt by the PRIs under the XI schedule of the Constitution, keeping DRDA and other development agencies outside the control of zilla parishads can prove highly counter-productive.[7] This aspect is also important when, for instance, a scheme requires the interaction and co-operation of several line departments. This can be illustrated by taking the example of National Malaria Eradication Programme (NMEP). In the implementation of NMEP agencies concerned with say forestry, health, environment would need to co-operate and work under the umbrella of one single authority. Also not all the states have provided for inter-tier linkages between various tiers of panchayats in their acts. This may create problems of co-ordination and finalisation of plans prepared, say, by lower levels of panchayati raj bodies, thus adversely affecting the efficacy of the panchayat raj system.[8] Moreover, various political parties will have to arrive at a consensus on the working of PRIs at different levels and the relationship of state government with the various tiers of PRIs.

Thus from the viewpoint of deriving maximum benefits from decentralised governance what is needed is a viable mechanism in which (i) co-ordination between panchayats and technical departments is evolved, (ii) co-ordination between schemes of one department and scheme of other department is ensured and (iii) an organic co-ordination between various tiers of PRIs is fostered. As was pointed out, at present the practice is to have the officers from the technical departments to work on deputation under the control of the executive officers of PRIs. There are of course exceptions to this practice as in some states the line department functionaries are not put under the control of the chiefs of the PRIs. Whichever the system, certain conflicts are bound to arise, especially when line department functionaries are directly under the control of the state headquarters. Some states, like Karnataka have placed all the district heads of various technical departments under the control of the CEO of zilla parishad. These functionaries can be transferred by zilla parishad within the district. Also their annual confidential reports are written by CEO of zilla parishad. The recruitment is with the state department. Similarly in Punjab, except recruitment and punishment, the heads of zilla parishad and panchayat samiti are empowered to exercise the powers of the head of department in respect of employees of the concerned departments engaged in implementing the schemes/programmes entrusted to zilla parishad and panchayat samiti. Further, as in Karnataka, in Punjab too, the annual confidential reports of the district/block heads of concerned technical departments would be written by chairman/CEO/EO of zilla parishad and panchayat samiti respectively.

There is now a view that ideally the PRIs should have their own staff through direct recruitment, although a few may be taken from the state or the parastatals on deputation basis. Whatever the recruitment method one adopts, as far as the discipline is concerned PRIs should be entrusted to enforce it. Also with CEO/EO as heads of PRIs and also exercising control over the district or block heads of line departments, it is quite possible to achieve both departmental and inter-departmental schemes co-ordination. At the moment it is quite difficult to evaluate the functioning of PRIs, particularly their effectiveness in improving the performance of local schemes and projects. However, the broad indications are that the PRIs can play a crucial role in the planning and effective implementation of various schemes/programmes including the functioning of local level institutions. Similarly PRIs can play equally important supervisory and monitoring role in preventive and promotive health care programmes.

V
World Bank Initiatives towards Decentralisation

Over the last two decades or so, the World Bank has supported a number of projects in the population, health and nutrition sector in India. In the course of the implementation of these projects, a number of problems relating to planning and implementation aspects in various projects has arisen. Besides serious problems relating to flow of funds have been experienced. These problems seem to have arisen as most of the projects were formulated adopting the top down approach with little involvement of the local beneficiary population. In formulating the projects, it is usually assumed that the existing health infrastructure and the administrative structure would remain undisturbed. Eventually however, problems in implementation started cropping up. First obstacle was the delays in the disbursement of funds from centre to the states and to lower levels of governance. Also many times, these funds were found to be used for purposes other than for which they were assigned. For example, the project funds in many cases were used by states to pay the salaries and other establishment costs which otherwise is their responsibility. Similarly, the schemes and programmes designed under the project did not match the needs and perceptions of the local population. Thus, many of the project funds remained under – or un-utilised.

Realising some of these problems, recently the Bank modified its approach, and began advocating more and more for a participatory and client-based approach in project formulation. It has also been emphasising greater involvement of both private sector and the NGOs. The induction of the institution of SCOVA and the Family Planning Association of India (FPAI) in many of the later projects assisted by the Bank is an indication of this approach.[4] Also simultaneously, especially with the launching of the disease control programmes such as for blindness, leprosy and tuberculosis, the concept of district societies is being promoted to facilitate flow of funds and better implementation and monitoring. These societies basically serve two purposes. One, they were used to facilitate the flow of funds, and secondly to assist in the monitoring and evaluation of the projects at the grass roots level. However, there is little evidence of the local population being involved into need assessment. Also we find little co-ordination between these district societies and the health department in regard to case detection and surveillance. Indeed some confusion seems to prevail about the precise role of these societies. Moreover, these societies appear to be at best a facilitating mechanism to tide over a specific problem or obstacle. It cannot be termed as genuine participation or decentralisation. However, the programme of malaria control has been decentralised at the grass roots level with involvement of local malaria societies and panchayati raj institutions. The pivotal role was played by malaria link volunteers for delivering the services at the doorstep. Statement 1 details the extent of decentralisation that has taken place in various World Bank assisted PHN Projects (excluding HIV/AIDS project, where the primary focus is on prevention mainly through advocacy and IEC). The statement shows that, except the most recent IDA assisted reproductive and child health project where im-

plementation, monitoring and funds flow are decentralised almost to the grass roots level, no other project has gone any far with decentralisation. Also the participation of NGOs and PVOs has been by and large remained of a limited extent.

The first attempt towards the decentralisation, as has been widely claimed, is perhaps the recent reproductive health project of the IDA assisted government of India project where overnight target-free approach has been adopted.

The new emphasis on a target free approach launched in April 1996 under the new programme on reproductive and child health signals a new approach to family planning and health care of mothers and children. It is a programme of policy reform aimed at integrating family planning with child and maternity care in the primary health care system, making health personnel on all levels client and service-oriented, emphasising quality of service, upgrading technical facilities, and involving the local government and the community, private doctors, and NGOs, etc in the planning, implementation and monitoring of the work. It means that fixed targets in various activities are done away with and replaced by performance indicators, and that overall responsibility for health care in the community is defined by the health workers in accordance with basic goals of RCH, but sensitised to individual needs in the population. In order to achieve this, planning, implementation, and monitoring will be decentralised to the district level and below. The reform policy will involve substantial training of health workers, communicating this change of policy, new attitudes, and style of work that is necessary to make the programme success.

The organisational set up for this reform will build on the primary health care system that has evolved in the country over the last two decades. The basic node in this system is the sub-centre (S-C) in the village, manned by an auxiliary nurse midwife (ANM), and under the control of a lady health visitor at a nearby primary health centre. In many areas, there has already been a programme for training of traditional birth attendants (TBA, dais) to assist the ANM in her work. In about half of the sub-centres there is also a male health visitor (MHW). In the new programme of MOHFW will work on strengthening the role of the community in maternal and child health care and sensitise the male members to gender, HIV/aids, and the need for speedy referral of emergency cases after delivery. For all these workers, training and sensitisation to the new objectives will form an integral part of RCH.

In the RCH project vertical programmes such as CSSM and ICDS are supposed to converge with this primary health care system to provide integrated services to the community. Voluntary anganwadi workers (AWWs, ICDS programme) and their local facilities will be used for the RCH care, co-ordinated by the ANM. Panchayat members, teachers, NGOs, private medical practitioners (allopathic as well as indigenous), women's organisations, youth associations and other concerned members of the community are supposed to participate in the planning and implementation of RCH work.

In some states, though not sanctioned by the central ministry, a voluntary system of health workers is still in vogue. In villages where there are no sub-centres within reach, village health posts (VHP) will be promoted, which are manned by a community health worker (CHW), trained for three months, provided with a basic drug kit, and allowed to charge a fee (rate determined by the gram panchayat) for his services. The CHW will work on an honorary basis, supported by the gram panchayat, and supervised by the ANM at the nearest sub-centres.

The sub-centre (and village health post) connected with a PHC is then connected with an upgraded PHC (at the block level) or a hospital (CHC), that may in some cases serve as first reference unit for medical referral of difficult cases. In RCH most of the money, it seems, will be spent on these higher level centres, to upgrade existing facilities, get access to more drugs, and contract more qualified doctors, all in order to ensure higher quality of essential obstetric care. The sub-centre level and below will not receive the same technical upgrading, but the ANM will be provided with a loan to buy a moped, and subsidised rent to make her stay in the village near the sub-centre. The while systems and its medical and administrative personnel is now supposed to come under the control of panchayati raj institutions.

The *Manual on Target Free Approach* describes how decentralised participatory planning should start with an assessment of the felt needs for public health services in the community. It is the key grass roots health worker, the auxiliary nurse-midwife (ANM) at the sub-centre (SC), who will have to survey the population (by house to house visits or by focused group interviews) and establish to what extent people expect her services. She can then establish the gap that she has to bridge in order to reach full coverage. Her work should, however, be based primarily on the felt needs, while in the long run trying to influence this in the direction of what is called area requirement for full coverage of RCH service. In making the sub-centre Action Plan, the ANM should associate members of the community, such as other health workers, private medical practitioners, indigenous practitioners, ex-servicemen, other public grass roots level workers (including teachers), pradhan of gram panchayat and anganwadi workers.

Also at the PHC level community participation is expected in terms of organising meetings with panchayat members, primary school teachers, women's groups, youth clubs, anganwadi workers, ex-servicemen, etc to prepare the plan and to spread health and family planning messages. The expectation is that this participation of local government servants and community representatives in planning will also lead over to participation in the implementation of the work, and they are also supposed to monitor the work at the sub-centres and primary health centres.

In the instructions, it is stated that the project will be implemented by district authorities/zilla parishad, however, without any guidelines. Funds will be available to PRIs, SCOVA and other grass roots agencies. These first steps are sound in principle but need to be developed much further in the reform process to come.

VI
Critical Areas

The district administration is responsible for planning, organising and supervising the district's family welfare work. While districts may adopt with enthusiasm the new planning procedures, there is a risk that they may not respond equally well to the changes necessary in implementation especially if existing administrative structures and practices continue and tight budget lines as prescribed by the centre are retained.

A more advanced form of decentralisatin in public service delviery would mean conferring greater autonomy not only on the districts, but on the blocks and village adminstrations, and extending even further to the individual service institutations (CHC–PHC–SC). Autonomy should be defined as the freedom to use available resources in a flexible manner to reach optimal results, with the higher administrative and political levels providing only broad directives. For service institutions, this presupposes adequate staff, buildings, equipment, drugs and other supplies, and adequate funds for day-to-day operations. In the final decentralisation stage, the

panchayati raj institutions would exercise their responsibility to provide directions to service institutions.

Supervision of service institutions should be more in the form of support (for example, assistance in problem solving) than control. Performance monitoring can be shared between the line health administration (for technical matters) and the relevant panchayati raj institution (for approving the health plan and assessing its achievement). The decentralisation process needs to be further clarified and a strategy defined for its implementation, particularly at the district level. Specific elements of the decentralisation process that need to be worked out are: (a) The proportion of the state health budget without tied budget lines to be allocated to the district, block and village administrations; (b) The degree of freedom in the allocation of financial resources for various activities at these levels; (c) Autonomy in terms of using financial resources for service delivery institutions; and (d) The individual health worker's actual control over the work situation.

The district health administrators' capacity to manage the new system will also need to be improved. The decentralisation process itself will need to be further developed over a period of time and pilot studies for exploring management issues in terms of decentralisation to block and village level administrations may be instructive.

The main role of PRIs would be to formulate a locally relevant planning policy, and review work programmes and budgets. In additions, PRIs can promote and take action on intersectional integration of services and programmes (sanitation, drinking water, nutrition, primary education, etc) essential to improve the community's health. They can also raise supplementary resources for public health and preventive activities as well as for the maintenance of health centres, referral transports. As local elected bodies they are in a better position to raise local resources (financial, material, human resources) than distant state governments ever could.

Linking the health sector with the panchayat system is a complex chain process involving several actors. Past experience is not encouraging. The PRIs have often been dominated by the local power elite, obstructed by politicians at the state level, and have mostly been seen as advisory rather than decision-making bodies. Allocated financial resources, often insignificant, have been linked to tight budget lines, leaving limited room for local decision-making. The constitutional amendment now being implemented provides different prerequisites and opportunities for change, but resistance can still be expected from metropolitan and regional power elites. The change processes, conventions and rules, therefore, have to evolve over a period of time and over a number of issues: (a) What should be the division of labour between the different tiers of the panchayati raj, i e, the zilla parishad at the district level, the panchayat samiti at the block level, and the gram panchayat at the village level? (b) Which body should control which part of the work plan and budget? (c) Should there be separate health committees at the different levels of the PRIs and should these committees be advisory or decision-making bodies? (d) How should the various administrations at district, block and village level be reoriented, where necessary, to correspond to the new system of self-government? (e) How can women panchayat members be activated, for example, in health matters? (f) How should and could PRIs control health service institutions at the various levels (the health plan, its achievement, etc)? (g) How can PRIs raise supplementary resources for health care?

To take out one example of the issues involved how appropriate and efficient are village health committees? Evidence from Maharashtra's District Primary Education Programme shows that village education committees separated from gram panchayats do not function well. They are controlled by teachers, have scarce funds, and are not known to the public. Similar weaknesses seem to attach to village health committees where they have been formed. Thus the question is whether it is not better to assign the responsibility for health and family welfare directly to the gram panchayats, allocating them adequate resources and providing orientation to their members?

Within each state, a system linking the health administration (including the health service system) with the PRIs will have to be developed. This needs to be a phased reform, taking into the consideration the uneven development of PRIs in the different states. Panchayat members and health functionaries need orientation; and health functionaries need to be involved in the reform process through consultation to allay fears that the new system will affect them adversely (e g, in terms of control over their work situation). During the PPP, each state should, therefore, clarify the pre-conditions for linking the health system with the PRIs and plan a phased reform, taking into consideration the different characteristics of the two systems in the state.

VII
Issues for Discussion

In the end, we would like to highlight the following issues requiring further discussions: (a) To achieve optimal results, what is the degree and the level to which decentralisation should be pursued? (b) How effectively can the panchayati raj institutions be used as vehicle of health care delivery? (c) Is community prepared to shoulder the responsibilities essential for the success of decentralisation? (d) What measures are needed to foster better co-ordination between various agencies, especially between administrative wing and the line departments, and between health department, PRIs and the community? (e) Was a lack of concern in the earlier IDA assisted health projects, a conscious decision or was it the result of inadequate demand for health services, thus justifying the top-down approach?

Notes

[An earlier version of the paper was presented at the workshop on 'World Bank's Role in Health System of India', Sponsored by the Operations Evaluation Department of the World Bank, New Delhi, April 2 and 3, 1998.]

1 Lessel H David's mimeograph paper 'Organisation of Health Services in India - extent of which decentralisation' has considerable details on the subject.
2 Since PRIs are now entrusted with methods listed in the XI schedule a series of changes in the existing arrangements for planning implementation monitoring and review of schemes and programmes relating to these methods would be needed. Administratively, this implies assigning certain schemes and programmes, including human and financial resources to particular tier of the PRI. This in effect would result in placing the concerned departments under the control of district panchayat/block panchayat/gram panchayat.
3 To keep organise co-ordination of different tiers of panchayats, the head of the lower tier is given the ex-officio membership of higher tier body. The local MLA/MP are also made members of the PRIs of the respective tier (a good example is West Bengal).
4 The Standing Committee on Voluntary Action (SCOVA) was set up in June 1986 to promote community participation in rural areas at the grass roots. The Committee included eminent social workers as its members. The idea was to promote well integrated projects with MCH, immunisation and family planning services for the improvement of health standards.

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The Search for Flexibility in Indian Manufacturing

New Evidence on Outsourcing Activities

K V Ramaswamy

This paper provides estimates of production subcontracting in Indian manufacturing industries as a source of flexibility. Data on 84 three-digit industries within the organised manufacturing sector is used here. An index of subcontracting intensity is introduced and it is shown to have increased in aggregate manufacturing between 1970 and 1992-93. It is shown that subcontracting practices are concentrated in labour-intensive industries and greater in industries producing consumer non-durables. A non-linear relationship between factory size and subcontracting intensity is postulated. Regression estimates supported the hypothesis. Organisational diseconomies associated with large employment size seem to result in greater subcontracting.

I
Introduction

INDUSTRIAL firms in India are widely perceived to lack the necessary flexibility to respond to changes in markets and technology. The regime of state-directed industrialisation and labour policy is held responsible for having imposed rigid rules on firm management decisions. Labour laws and job security regulations, it is argued, have made labour use by large industrial firms inflexible [Chaudhary 1996]. Industrial regulatory policy has been restrictive until recently of choice of capacity expansion, product mix and location decisions of large firms. Technology policy worked to limit foreign technology purchase, duration of technology agreements and royalty payments. Liberalisation of industrial policies first initiated in the 1980s relaxed the constraints on firm entry, expansion and diversification decisions. Industrial sector's transition towards greater market orientation has gathered momentum with the comprehensive reform of industrial and trade policies introduced since August 1991. The objective of reforms is to enable Indian firms to improve efficiency and competitiveness. Labour market institutions, however, have remained outside the reform process.

In this context the interesting question is how firm management strategies have responded to the evolving product and factor market changes? During the period 1963-64 to 1978-79, it is observed that domestic competition sharpened with an increase in the number of firms in both homogeneous and differentiated markets.[1] With the relaxation of capacity licensing and import restrictions in the 1980s industrial markets experienced greater domestic and import competition often with many players with foreign technological collaboration [Jacobsson 1991, World Bank 1996]. The entry of multinational firms has further contributed to effective competition across industry groups. Factor markets also underwent changes with a steep rise in real interest rate since 1980 and the estimated cost of capital of medium and large companies showed a rising trend [Nagaraj 1994]. Labour markets present a mixed picture. Real wages per employee has risen rapidly in the 1980s than in the 1970s.[2] In the 1980s union density declined and the number of workdays lost due to lockouts by management rose relative to workdays lost due to strikes. The growth of organised manufacturing employment decelerated and employment elasticity of output turned negative.[3] The unorganised sector accounted for most of the manufacturing employment.

The fall in the elasticity of employment with respect to output in large factories is partly attributed to the rigidity of regulations governing factory employment.[4] Industrial Disputes Act (IDA, 1976) stipulated that factories with more than 300 workers are required to take permission from the government before retrenching workers. The amendment to IDA in 1982 required all factories with more than 100 workers to take permission from the respective state governments before laying off or close the factories. The observed fall in labour demand is confined to large factories. Micro economic studies have documented the widespread use of market mediated work practices and outsourcing of products.[5] It includes greater use of contract, temporary and casual workers, on site labour only subcontracting and production subcontracting among others. Aggregate data shows that the share of casual workers in large factory employment rose from 4.6 per cent in 1980-81 to more than 12 per cent in 1993-94. It is primarily the strategic response of management to changes in both product and factor markets.

The use of outsourcing reflects the search efforts on the part of large firms to gain new margins of flexibility in increasingly competitive markets. However, there is little quantitative evidence on the extent of production subcontracting across industries and its associated industry characteristics.[6] Therefore the significance of subcontracting as a source of flexibility to industrial firms remains ambiguous. This paper perhaps for the first time provides estimates of production subcontracting in Indian manufacturing industries. We use data on 3-digit industries within the organised manufacturing sector. We introduce an index of subcontracting intensity. We show that subcontracting practices are concentrated in labour intensive industries, greater in industries producing consumer non durables and in industries with plants below the median employment size. The relationship between factory size and subcontracting intensity appears to be non linear. Organisational diseconomies associated with large size seem to result in greater subcontracting. Subcontracting contributes to higher measured value addition in large factories.

Following this introduction the present paper is organised in four sections. We begin by briefly reviewing the nature and determinants of subcontracting in Section II. Section III presents the evidence on the growth and inter-industry distribution of subcontracting practices. Section IV explores the relationship between factory size and other correlates of subcontracting. Section V contains the conclusions.

II
Nature and Determinants of Subcontracting

We define the term subcontracting to mean the manufacture of goods by one firm for another based on latter's specifications [Lazerson 1990]. This differs from a narrower UNIDO (1974) definition which states "a subcontracting relationship exists when a firm (the principal) places an order with another firm (the subcontractor) for manufacture of parts, components, sub assemblies or assemblies

to be incorporated into a product which the principal will sell. Such orders may include the treatment, processing or finishing of materials or parts by the subcontractor at the principals request" (cited in *Productivity*, vol 35, 1995). Our definition encompasses transactions where the principal firm places an order either for the whole product or parts of the product, which it either sells directly to the consumer or incorporates into the product that it manufactures. Contract manufacturing perhaps correctly captures the nature of the transaction. Two main forms of subcontracting are commercial and industrial subcontracting. In commercial subcontracting the role of the principal firm is limited to marketing and distributing the subcontractors finished product. The principal firm itself may not be engaged in the manufacture of that product.

The essence of subcontracting is that one or more firms must mediate the relationship between the subcontractor and the final user of the product/end market [Lazerson 1990; Holmes 1986]. The extant literature tends to focus on vertical inter-firm relationships and in particular between small and large firms (well known is the one between small component suppliers and auto manufacturers). Equally important and of recent origin is the horizontal subcontracting that takes place between two firms operating at the same horizontal stage of the vertical chain of production. This is not confined to small-large variety. Two large (even rival) firms are found to engage in subcontracting arrangements. For example, Videocon supplying Power Wash machines to Godrej-GE. Suppliers of refrigerators, electric fans, thermo-ware steel furniture and domestic electric appliances constitute the numerous instances of horizontal subcontracting between large and small firms. It is possible to distinguish a number of subspecies of subcontracting arrangements between firms. In Japan subcontractors of the various automobile manufacturers are organised into tiers, with lower tier subcontractors supplying higher tier subcontractors. It is argued that in response to changing market conditions subcontracting has emerged as an alternative strategy to vertically integrated production in developed countries [Lazerson 1990]. What are the determinants of subcontracting arrangements?

Technology and demand: This is a traditional view which emphasises production costs and different minimum efficient scales (MES) of different stages of production. As market expands for the downstream products, specialist upstream firms can exist to achieve optimal scale causing disintegration of production.[7] Young industries tend to be vertically integrated and the tendency to disintegrate becomes stronger with the expansion of the industry demand over time. Specialisation subcontracting is the predominant form of subcontracting in North America and Japan.

Transactions cost: Subcontracting as a form of production organisation is the outcome of a firm's decision to 'make or buy'. Industrial organisation theory has suggested several answers to the question of internal organisation of production against market purchase. Coase and Williamson argue that the minimisation of transaction cost is a major concern in the design of production organisation. Transaction costs include search costs of finding information about prices and quality of products, writing and enforcement of contracts and the costs of monitoring performance. When transaction costs are high the firm will decide to organise the production of the product in-house rather than purchasing it from the market. In this perspective, the firm is viewed as an alternative to the market as a mechanism for governing transactions. In young industries, with specialised needs and supply unreliability, contracting costs would be high favouring vertical integration. Once the industry matures and products are standardised, the firms would begin to outsource [Levy 1984]. Early observers of Indian industrial growth noted the relatively high vertical integration of Indian industries. Further, disintegrated production takes place when governance costs of integrated production rise, say, due to poor labour relations. In brief, regulations raising or reducing transaction costs for an industry would deserve attention.

Labour market: Segmented labour markets divided into formal and informal segments is supposed to be a major determinant of outsourcing of product as well as labour. Formal sector employment is well paid, governed by long-term contract, subject to government regulations and trade union pressure. Informal segment is outside the job security regulations, pays lower wages, free from union wage agreements, and escapes government regulations on health and safety. Institutional factors may have contributed to the widening of the wage differentials between large and small firms in recent years [Mazumdar 1988]. Subcontracting is reported to be the typical response of large unionised firms in India. To quote, "The farming out is so extensive in some cases that the firm's own employees have been reduced to a fraction of its total employment, and the character of the firm itself transformed from a manufacturing to a trading one" [Ramaswamy 1988:3]. It is reported that unions perceive that their threat to strike would be weakened if the management has an option to augment production from other sources [Deshpande 1997]. Even the non-unionised but high wage firms may find it attractive to farm out certain peripheral activities using low-skill work.

Demand uncertainty and business strategy: Industries may face demand uncertainty due to cyclical or seasonal variations. This encourages capacity subcontracting by large firms. Current demand in excess of installed capacity would be met by outsourcing from the subcontractors. In-house production of transitory demand may be uneconomic due to costs of varying the regular workforce, costs of excess employment and capacity during recessions.[8] Small firms function as a buffer to cyclical fluctuation of industry demand. In India organised sector firms are reported to shift the transitory demand for their products to unorganised manufacturing.[9]

The sources of greater uncertainty in product markets are increasing competition, product differentiation and niche markets. Subcontracting is a means of reducing the risk associated with expanding production. Competition among subcontractors keeps their supply costs low and enables the parent firm to expand or contract production over a wide range of possible output without affecting marginal cost [Scott 1983]. Subcontracting enables the firm to take better advantages of the division of labour, shed marginal activities and focus on few core functions. Given that entry and exit costs are high, large firms often use subcontracting to test markets for new product lines with a view to reduce entry costs.

State policy: State policies restricted the growth of large domestic firms and firms with foreign equity.[10] At the same time state policy encouraged small-scale factories through product reservation and other promotional measures like concessional credit for fixed and working capital and fiscal incentives. Small-scale sector was not subjected to capacity licensing. A large number of products were reserved exclusively for small-scale producers and

TABLE 1: INDUSTRIES WITH HIGH SHARE OF CONTRACT LABOUR
(Percentage of Total Employment in Census Sector)

Industry Group	1986-87	1980-81
Beverages and tobacco	50.9	9.1
Non-metallic mineral products	23.9	14.6
Food products	19	16.5
Basic metals	16.9	8.5
Wool and silk	12.5	5.5
Chemical products	10.2	6.8
All industries	10.1	4.6

Source: ASI 1980-81 and 1986-87 (census), Labour Bureau, ministry of labour.

arge firms were not allowed entry into hose product lines. The first policy forced arge firms with frozen capacities to outsource additional output. The second policy facilitated outsourcing by creating a small-scale sector capable of producing numerous intermediate and final products with simple technology. Small firms mostly obtained the technology from their customer firms and equipment suppliers [Desai and Taneja 1991]. The scrutiny of annual reports of large business houses and foreign equity companies revealed ownership of plants in the small-scale sector [Goyal, Rao and Kumar 1984]. Exemption from payment of excise tax has been the most attractive fiscal incentive for small firms. The value of this incentive scheme is found to be very high as rates of duty varied from 15 per cent to 105 per cent. Attempts to rationalise indirect tax structure began only in the 1990s.

Evidently multiple causes operate behind the spread of subcontracting practices. One may note that specialisation subcontracting is vertical in nature and capacity subcontracting is essentially horizontal subcontracting. Reported surveys of small firms, case studies and anecdotal evidence suggest that subcontracting in Indian manufacturing has grown rapidly in recent years. In the next section we attempt to estimate one possible measure of subcontracting intensity and its significance as a source of flexibility in a cross-section of industries.

III
Empirical Measurement of Subcontracting: Issues and Estimates

The balance sheets of companies do not report the value of products produced in house during the year and that is bought-out separately. We need separate data on components/products bought out and incorporated in the company's final product and that product which is bought out but sold directly to the final consumer perhaps after stamping the company's brand name. The most widely used data on industries in India is the Annual Survey of Industries (ASI). The ASI is based on data collected from factories, under the Factories Act, 1948, with more than 10 workers.[11] The census sector of ASI covers factories with 50 workers and above using power and those with above 100 workers without power. Data in somewhat greater detail is available at 3-digit level of national industrial classification (NIC) for selected years. The ASI data presents estimates of value added by subtracting the gross value of inputs from the gross value of output. From our viewpoint the following two categories deserve attention. First, sale value of goods sold in the same condition as purchased. Second, contract and commission work done by others on materials supplied. We believe that data on these two types of transactions may be regarded as significant measures of subcontracting activity of factories in the registered sector. The first transaction is suggested to capture trading activity of small firms [Goldar 1988]. For registered factories, subject to auditing, we believe that it does not stand for trading transaction.[12] Consider the following two examples: Factory G purchases finished steel bookracks from an informal sector factory and sells it as its own, after stamping its brand name. The same factory also buys rolled steel as input but sells to another factory. The second example is a clear case of trading activity but under the sales tax provision can not be shown as sales revenue. We argue that reported data on 'sale value of goods sold in the same condition as purchased' essentially captures the transaction indicated by the first example.

The definition of net value added is as follows:

NVA = Total Output – Total Input

where,

Total Output = Value of products manufactured + Electricity produced and sold + Addition of stock of goods + Own construction + Sale value of goods sold in the same condition as purchased + Industrial and non-industrial services rendered for customers.

Total Input = Fuels, Electricity, etc, consumed + Materials + Contract and commission work done by other concerns on material supplied + Purchase value of goods sold in the same condition as purchased + Others.

We have taken the value of goods sold in the same condition as purchased as measure of the value of subcontracting. And its share in value added (or in the value of output) as an index of subcontracting intensity. It measures the degree of product subcontracting in an industry.

Labour contracting and putting-out are the other two important forms of subcontracting practice. We have some estimates of their importance in different manufacturing industries. We shall present them first in order to put our study on product subcontracting in perspective. Table 1 presents data on five industry groups with more than average share of contract workers in total employment. The use of contract labour has registered the largest increase in two industries, namely, beverages and tobacco, and non-metallic mineral industries. Bidi-making (local cigarettes) which is part of beverages and tobacco is most intensive in labour use and traditionally contract labour dominates bidi manufacturing. Similarly, brick-making and metal casting industries are major users of contract labour and this gets reflected in the high estimated ratios of contract to total labour in non-metallic and basic metal groups. The rising trend is also observed even in new industries like food products and chemicals. This is consistent with the reported trend towards labour contracting for non-core activities like cleaning and maintenance, packaging, welding, painting and warehouse activities. This represents one facet of management response to changing market conditions.

Industrial firms also supply raw materials to other factories for treatment, finishing and processing. This is one form of traditional putting-out production in which the firm chooses the labour-intensive activity for outwork. Data on the value of work done by other concerns (factories/workshops) on material supplied is a measure of the value of subcontracting activity. For large factories, the value of such activity constituted 5.3 per cent of value added in 1973-74. It is around 4.5 per cent in 1992-93. For the registered manufacturing sector it is estimated to be around 8 per cent in 1983-84 and 7 per cent in 1993-94. For large factories in 1992-93, we estimated it to be 56 per cent of value added in textile garments (265) and the value of such activity exceeded

TABLE 3 DISTRIBUTION OF INDUSTRIES BY SUBCONTRACTING INTENSITY 1992-93

Per Cent-Share	Number of Industries
More than 100	7
50-100	10
25-50	17
10-25	18
0-10	48
Total	100

Source: Author's estimates

TABLE 2 GROWTH OF OUTSOURCING IN MANUFACTURING* 1970 TO 1994

	Census Sector 1970	Census Sector 1978-79	Factory Sector 1983-84	Factory Sector 1993-94	Census** Sector 1992-93
Subcontracting intensity*	9 46	21 66	22.3	25.3	15 9
Share in reg manufacturing	[illegible]	85	100	100	58

Notes: Author's estimate based on ASI reports of various years.
* Manufacturing excludes repairs;
** Census sector= Factories with more than 50 workers,
Census* =Factory with more than 200 workers.

the reported net value added in the industry group manufacture of fabricated metal products (340). Excluding these two industries this type of subcontracting activity is quantitatively insignificant. Therefore, it would not have been a significant source of labour flexibility.

Our index of subcontracting intensity, as noted above, is the ratio of the value of goods sold in the same condition as purchased to value added. Table 2 presents the estimates of subcontracting intensity in different segments of manufacturing at different time points, which is based on data availability. Subcontracting was not a significant activity in 1970. By 1978 it has gained prominence for large factories with a share of 21 per cent.[13] Note the change in the definition of census sector in 1978 and 1992-93. Consequently, they are not comparable. However, the data clearly suggest that for large factories subcontracting is a significant activity.

Large factories (those with more than 50 workers) dominate the registered factory sector in terms of output and employment. This further suggests that small firms do less of subcontracting. Using the results of the Reserve Bank of India (RBI) survey of small-scale units for the year 1977, we estimated the subcontracting intensity for the small-scale sector. It is found to be only 0.53 per cent. The share of subcontracting for the factory sector has shown an increase of 3 percentage points during the period 1983-84 and 1993-94. Note that during this period real value added of the factory sector recorded an average annual growth rate of 7.8 per cent. We shall focus on the industry level estimates at three-digit level of disaggregation for the year 1992-93. This covers all factories with more than 200 workers.

We estimated the subcontracting intensity for 100 three-digit industries. Table 3 shows the distribution of industries by their subcontracting intensity. Which industries are relatively subcontracting intensive? What are their associated characteristics? In Table 4, the subcontracting intensity of selected industries are presented. They are in fact the top ranking three-digit industries in five use-based classifications of industry groups, namely, basic goods (BG), capital (K), intermediate (Int), consumer durable (CD) and consumer non-durables (CND). They are consistent with our a priori expectations based on anecdotal and sample survey results reported in the literature. The average subcontracting intensity and the other relevant characteristics of five use-based industry groups are shown in Table 4.1. Consumer non-durables have the highest subcontracting intensity and their average labour intensity is also the highest. Their share in value added is also high and next only to the basic industries. Intermediate industries present a contrasting picture with lowest subcontracting intensity and value-added share. Capital goods and consumer durables have similar subcontracting intensity and labour intensity. The median employment size of the industries is lowest in consumer non-durables and largest in basic goods. Basic goods represent process technology and continuous flow methods of production in contrast to consumer non-durables in which batch production methods seems to be widespread.

IV Correlates of Subcontracting Intensity

What are the correlates of subcontracting intensity? Is there an association between average factory (plant) size and subcontracting intensity? Does greater subcontracting intensity leads to higher measured efficiency of large-scale factories in terms of value added to output ratio?

The size of plant within industries is an important indicator, which is supposed to be capture the effects of scale, technology and organisational mode. We estimated the average employment size of factories of the above industries after eliminating 16 industry groups.[14] The median employment size of factories is found to be 456 workers for this set of 84 industry groups. Table 5 presents the average values of certain selected variables for two groups of industries, namely, those industries with less than median employment size (Group I) and those with a factory size, which is greater than the median employment size (Group II). Group I industries can be seen to have higher subcontracting

TABLE 5: AVERAGE PLANT SIZE OF INDUSTRY AND ECONOMIC CHARACTERISTICS IN 84 THREE-DIGIT INDUSTRIES

	Less than Median Employment Size	Greater Than Median Employment Size
Subcontract value/ value added	38.7	20.6
Subcontract value/output	7 1	4 7
Fixed capital/ labour	Rs 3,82,000	Rs 1,92,000
Average employment size	356	670
Labour per unit of value added	0.78	0 45

Source: Authors' estimates based on ASI (census sector), 1992-93; the figure inside the bracket is the number of industry groups.

TABLE 4: SUBCONTRACTING INTENSITY IN SELECTED INDUSTRIES

(Percentage)

Industry Code and Name	Subcontracting Intensity
331 Semi-finished iron and steel products (BG)	52
217 Prepared animal feed (Int)	112
234 Weaving and finishing of cotton textiles on powerlooms (Int)	110
366 TV receivers, radio broadcasting equipment, microphones, record players, cassette players, audio and video tapes, etc (K)	79 4
368 Electronic valves, tubes, capacitors, circuits and other electronic equipment (K)	59 4
350 Agriculture machinery and equipment and parts (K)	37.5
335 Refrigerators, air-conditioners and Fire fighting equipment and parts (CD)	115
342 Metal furnitures and fixtures (CD)	30.7
363 Electric lamps (CD)	55 4
374 Motor vehicles and parts (CD)	17.5
387 Stationery articles (CND)	180 2
211 Vegatable oil and fats (CND)	210
214 Coffee and instant coffee (CND)	103
202 Canning and preparation of fruits and vegatables (CND)	178
265 Textile garments (CND)	32
304 Drugs, medicines and allied products (CND)	64.5
305 Cosmetics, soaps, detergents, shaving products, tooth paste and toilet preparations (CND)	78.8

Note. Author's estimates based on ASI 1992-93 (census sector).

TABLE 4 1: SUBCONTRACTING INTENSITY BY USE-BASED INDUSTRY GROUPS

Industry	Subcontracting Intensity	Labour Per Unit of Value-Added	Value-Added Share (Per Cent)	Median Employment Size of Industry
Basic goods	16	0.4	33	771
Intermediate	9.7	0.7	9	430
Capital goods	19	0.5	17.5	540
Consumer non-durables	33.5	0.9	33	356
Consumer durables	20	0.6	7.5	553
All industries	31	0.5	100	464

Note: Author's estimates based on ASI 1992-93 (census sector).

shares, lower capital assets per worker and higher employment per unit output. This suggests a positive association between subcontracting intensity and labour intensity. What motivates labour intensive industries to prefer higher subcontracting intensity? The reasons could be several. First, for that industry the significance of labour cost savings, in terms of wage and non-wage benefits, could be higher. Second, the transaction costs in terms of contracting costs of labour imposed by labour legislation and costs of monitoring labour performance is perhaps higher.[15] Third, the technology of the industry is more oriented or more amenable to subcontracting because of feasibility of subdivision and separability of activities.[16]

The relationship between factory size and subcontracting intensity raises an interesting analytical issue. There are gains from economies of large size operations. Size also entails organisational diseconomies. The sources of diseconomies may be information and co-ordination problems in a large organisation, loss of span of control and monitoring costs.[17] In regulated labour markets there may be diseconomies of large employment size in terms of hiring and firing costs. Industrial firms can be hypothesised to choose subcontracting at a point when gains from technological scale economies are offset by organisational diseconomies of size. Consequently, the relationship between employment size of factories and subcontracting intensity can be non-linear. The similarity to cost and output relationship in the neo-classical theory of production is obvious. As factory size increases subcontracting intensity first declines, reaches a minimum point and then begins to rise again. We assume that this relationship is quadratic in functional form. We have regressed subcontracting intensity of the 84 industries on their average factory size and size squared. Size is measured by employment and subcontracting intensity by the share of subcontracting value in total output.[18] The results are shown in Table 6 along with other estimated regressions.

The estimates, in column 1 of Table 6, are consistent with our a priori expectations about the nature of relationship between subcontracting intensity and factory size. Subcontracting intensity reaches its minimum at a factory size of 820 workers.

Our data is a cross-section of industry groups. In order to control for inter-industry differences in size structure we introduced an estimate of relative size of large factories and re-estimated the equation. The index of industry structure (IIS) is the value-added share of census sector (factories with more than 200 workers) in the registered factory sector in that industry group. A high share of census indicates the dominance of large factories in that industry and the scale and size dominated nature of technology. A lower share indicates the co-existence of large and small factories and scale neutrality of technology. Consequently a possible greater scope for subcontracting activity. We assume that small-large type dominates the subcontracting relationships in an industry. Hence we expect a negative association between the index of industry structure and subcontracting intensity. The estimates, in column 2 of Table 6, show a negative and significant coefficient for the IIS variable. The coefficients of factory size remain unaffected. We also observed a weak but positive and significant correlation (+.31) between IIS and the capital intensity of the industry.

A related question is the behaviour of capital intensity of factories with a change in employment size.[19] This needs to be consistent with our postulated relationship between subcontracting intensity and factory size. If a rising employment size of factory results in organisational diseconomies then we should observe, *ceteris paribus*, capital stock per worker to fall as employment size increases. The regression estimates, in column 3 of Table 6, is consistent with this proposition. The coefficient of factory size is positive and the coefficient of size squared is negative. Both are statistically significant. The maximum value of capital intensity is found at a factory size of 973 workers.

The ratio of value added to output is regarded as an index of vertical integration with several weaknesses [Hay and Morris 1984]. It partly reflects inter-firm differences in efficiency and competitive conditions. Perhaps it may be useful to consider it as an index of profitability of the production operations. From a definitional viewpoint (see above) higher subcontracting intensity should result in higher ratio of value added to output. The estimates of the regression, in column 4 of Table 6, support this hypothesis. After controlling for differences in IIS, subcontracting intensity improves the value-added ratio of large-scale factories.

V
Conclusion

Large industrial firms in India, till recently, worked in an environment of control and regulation. They were subject to capacity restrictions and labour market regulations. Subcontracting of final products, components, services and labour by large firms are known to be widespread and are believed to be rapidly growing. The practice of subcontracting is an indicator of the search efforts of firms to gain new margins of flexibility in competitive markets. We introduced and estimated an index of product subcontracting intensity. We showed that subcontracting intensity has risen in aggregate manufacturing. Putting-out production or traditional subcontracting, based on material supply to other factories, has not been a major source of flexibility. The industry group consumer non-durables is found to have the higher subcontracting intensity compared to basic and intermediate goods. The latter represent process technology and continuous flow methods of production in contrast to consumer

TABLE 6: STATISTICAL ASSOCIATION BETWEEN SUBCONTRACTING INTENSITY, FACTORY SIZE AND INDUSTRY STRUCTURE AND OTHER VARIABLES

Independent Variables	Dependent Variable			
	Sub/Output	Sub/Output	Fixed Capital/Workers	Value-Added/Output
	(1)	(2)	(3)	(4)
Sub/Output				0.006
				(1.64)*
Size	-0.03**	-0.03**	1.62***	
	(2.46)	(2.45)	(3.0)	
Size squared	0.000018	0.000018	-0.0008**	
	(2.45)**	(2.45)**	(-2.88)	
Index of industry structure		-0.02		0.001
		(-2.4)**		(6.1)***
Intercept	16.4	17.4	280.1	0.14
R-square	.10	.11	.12	.20
F-value	4.1	3.3	5.6	10.4
No of observations	84	84	84	84

Notes: Estimates based on heteroskedasticity consistent variance and co variance matrix [White 1980].
Sub/output = Subcontracting Intensity
Fixed capital/workers = Capital Intensity
Index of industry structure = percentage share of census sector in ASI Factory sector
*** Significant at 1 per cent level
** Significant at 5 per cent level
* Significant at 10 per cent level

non-durables in which batch production methods seems to be widespread. Subcontracting intensity and labour intensity are found to be positively associated. Both technology and labour market regulation are identified as sources of higher subcontracting activity of factories using more labour per unit of output. We tested the hypothesis that subcontracting intensity and factory size are non-linearly related similar to cost and output relationship in the theory of production. Regression estimates supported the hypothesis that subcontracting first falls and then rises with employment size of factories. This is attributed to the organisational diseconomies of large factories. Our study is based on aggregate industry data at the 3-digit level. Our results need to be further tested using firm level data within individual industries.

Indian industry is in the process of restructuring to improve competitiveness. In this context subcontracting would be an important strategy of large firms. It is also a major source of flexibility. In course of time there would be qualitative shift in the nature of subcontracting perhaps with an emphasis on the use of skilled labour and specialisation rather than on taking advantage of poor labour standards in the small-scale factories. To the extent that subcontracting is a response to the constraint of labour regulation, the method and the process of labour market reforms may need greater attention.

Notes

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1 See Desai (1985) for pursuasive discussion in terms of small and large group industries.
2 Ghose (1994). This is true only with respect to factories with greater than 100 workers.
3 Ghose (1994). Recent unpublished study by Bishwanath Goldar, Institute of Economic Growth, New Delhi, reports that during 1988-94 employment elasticity of organised sector recovered to turn positive.
4 Till date there has been no econometric evidence in support of this hypothesis. Fallon and Lucas (1993) claim to have shown the negative impact of job security regulations. Their evidence is weak and can be contested on several grounds. An alternative hypothesis points to the changes in product mix in favour of capital intensive industries, greater product market competition inducing efficiency and the nature of investment (modernisation) as major factors. Explaining the deceleration in aggregate manufacturing employment is a separate exercise and not pursued here.
5 Bhushan (1985) and Ramaswamy (1988). Nagaraj (1984) presents a descriptive survey.
6 "For various reasons, subcontracting is the most closely held secret in the corporate world", statement by the managing director of Parle Agro company, cited in *Business India*, September 12-25, 1994.
7 This idea was first suggested by Stigler (1968) based on Adam smith's proposition that "the division of labour is limited by the extent of the market."
8 Abraham and Taylor (1997) present evidence for American manufacturing firms.
9 See Banerjee (1988) for an example from Electric fan industry.
10 Under MRTP and FERA acts.
11 Factories with 10 workers with power and factories with 20 workers without power.
12 Sale of excess stock do take place but it is not equivalent to trade in intermediate inputs.
13 An important factor is that due to change in excise tax law in 1975 the number of products subject to excise taxation increased covering a large number of industrial products. Small-scale firms are exempt from the payment of excise taxation inducing large factories to outsource to gain the fiscal advantage.
14 The following criteria is used to eliminate the industry groups: (1) zero value of goods sold in the same condition as purchased, (2) net value added is negative, (3) reported value of any variable (say, wage bill) is greater than that value reported for the factory sector, (4) any extremely large ratio of a variable.
15 Is trade union density and strike activity higher in labour intensive industries? No evidence seems to exist for this proposition.
16 It is pointed out that subcontracting intensity seems to be correlated with the nature of the market rather than supply-side considerations, in export intensive industries like garments and leather. This logic correlates distant markets with subcontracting in labour intensive industries. We have not explored this possibility except to note that export intensity of our set of industries is rather insignificant except in garments, leather and food products like coffee.
17 See Holmstrom and Tirole (1989) for a survey.
18 The correlation between the two measures of subcontracting intensity, namely, sale value of goods sold in the same condition as purchased as a proportion of value added and as a proportion of output is highly significant at .76.
19 It is well known that the relationship between firm size (or plant size) and factor intensity is an empirical question.

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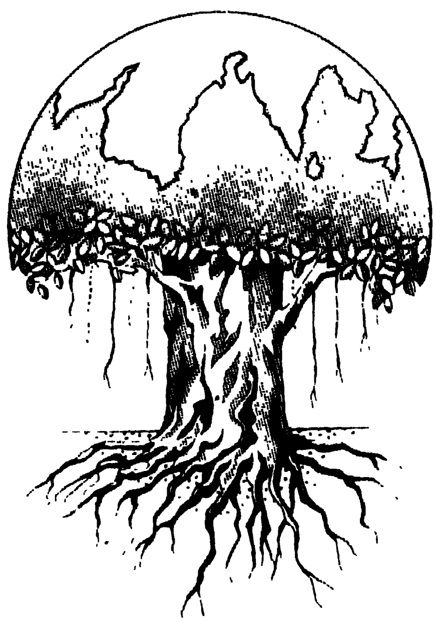

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Language, Literature and Nationalism: Case of Hindi

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There is a tendency to oversimplify history and project backwards current notions of conflict among Hindus and Muslims into the past. It is necessary instead to examine historical events in their richness, depth, complexity and ambiguity to better understand the nature of the current tensions. 396

Remembering Sachin

IT was sometime in June 1960, when I was a student in the Bombay School of Economics doing my final MA that I walked into the chamber of Sachin Chaudhuri in Apollo Street without even asking his permission or even an appointment. Hannan Ezekiel was my teacher and used to teach economics of public utilities and transport. He wrote regularly for the *EW*. Air transport had just been nationalised and I had written a small piece on 'Aviation since Nationalisation' and had taken the piece to Sachin Chaudhuri. He was chewing pan, and was in spotless white starched khaddar-kurta and did not talk to me, but smiled. I stood before him gazing at his table which was just a small wooden plank with several books and papers functionally disorganised all around. He was searching for something and eventually took out an FAO publication on fishing in Hong Kong and Konkan coast. He did not even talk about my piece on aviation and just said "you take this report and make a review of this in two pages". I was already sweating in the humid climate of Bombay but took courage to say "yes sir" and walked out with a feeling of dejection and joy at the same time – the joy of meeting him and being able to tell my friends that I had met Sachin Chaudhuri and that he had asked me to review a book for the *EW*. As a student it was an achievement. Then after a month or so I went back and gave him the review and he said 'good'. When after several months I saw my piece appearing as 'Fishing in Bombay and Hong Kong – A Contrast' my joy knew no bounds. After that I read *EW* for many years. When I was confused about my career choice between a research career and the Karnataka Administrative Service in the 1960s I wrote to Sachin Saab and asked his opinion. Prompt came his reply and he said. "The character of administration in India is changing, and should change, and one can write better by being in a system than outside" and he advised me to join the administrative service. Since 1960s I am an *EW* and later *EPW* fan. I have continued to meet Krishna Raj then and now. The *EW* then and *EPW* now, are not journals but institutions. If we want a tradition of scholarship, knowledge and critical enquiry to flourish in India, we have to strengthen institutions like *EPW*.

MANU KULKARNI

Bhopal

Bajrang Dal in Orissa

CLOSE on the gang-rape of Anjana Mishra – inspired by the ruling Congress(I)'s desire to silence the opposition to the ex-advocate general in Orissa – comes the news of the gruesome murder of Staines and his two small children. It is worth noting that Graham Stewart Staines had been selflessly working here for more than three decades among the lepers, something that very few of us Indians would even dream of doing today. The Australian leprosy mission, with which he was associated, had been founded in the early years of this century at Mayurbhanj, then a princely state. Never even during the period of the anti-imperialist struggle and mass movements in Orissa were such outposts of compassion, dedicated to the service of the poor and the outcastes of society, exposed to such treatment. In fact, the mission's association with one of Mahatma Gandhi's dreams, that of eradicating leprosy, had earned for it a lot of love and respect among the local population.

It is indeed a bitter irony that the Sangh parivar decided to 'thank' Staines in this fashion. It is equally ironic that while the prime minister has been calling for debates on conversions his men go on such barbaric rampages. It seems the Sangh parivar has now decided to strike at Christians in the country. Since its perverted anti-national political thinking cannot survive without locating enemies and spreading hatred and its anti-Muslim tirade seems to have been far too costly in electoral terms, it has now turned against the Christians. Justifying rapist attacks on nuns, tribal Christian converts and churches harmonises perfectly with the legitimacy provided by the leadership of the fascist outfits which locate missionaries and Amartya Sen (thank God Mother Teressa is not there to be branded in this way) as agents of 'Christian imperialism'!

One can only hope that these murderers and criminals are brought to book according to the law of the land and the people in this democratic country reject these fascist, inhuman and anti-national forces.

BISWAMOY PATI

New Delhi

ECONOMIC AND POLITICAL WEEKLY

Planning the Commission

THE Planning Commission has been revamped and given a new deputy chairman. The Ninth Five Year Plan too has been approved by the cabinet and now awaits the formal imprimatur of the National Development Council which is to meet next week after a gap of more than two years for that purpose. The funny thing is that the Plan covers the five years from April 1997 to March 2002; in other words, it is being cleared as it is about to enter its third year. The oddity has, however, evoked scarcely any comment, perhaps because there is the far bigger conundrum of what a five year plan said to run to a stolid 1,313 pages in two volumes is supposed to mean after almost an entire decade of economic reforms.

But no, the Planning Commission is not quite a bunch of Rip Van Winkles. There are apparently prefixed to the Ninth Plan document a few pages on 'Development Strategy' where it is quite plainly proclaimed that "[w]ith the progressive deregulation of the economy and the larger role of the private sector and market based decision making, planning methods based on input-output balances for each industrial sector have become less relevant. The notion of a deterministic relationship between the Plan and economic performance" too has apparently been given the go-by and instead the planning process now "focuses on planning for policy so that the signals that are sent to the economic system induce the various economic agents to behave in a manner which is consistent with the national objectives". Unfortunately, a resemblance, if any, between these sentiments and the rest of the massive bulk of the Ninth Plan document and, more important, the actual day to day preoccupations of the Planning Commission is, as they say, purely coincidental.

As far as can be made out from the available details, in the time-honoured tradition the focus of the Plan is on targets, aggregate and minutely sectoral, of growth, outlays and so on. The outcomes in the first two years of the Plan have been generally way off the mark. But no matter, from the third year onwards everything is expected to get back on the pre-ordained path. For instance, the growth rate of the economy is estimated to have been 5 per cent in 1997-98 and 6 per cent in 1998-99, well below the Plan's original target of 7 per cent. Sad no doubt, but for 1999-2000 and the rest of the Plan the growth target is back to 7 per cent so that over the five years as a whole the growth rate can be put at a respectable 6.5 per cent. Similarly, the Plan's target for the central government's fiscal deficit is 5 per cent of GDP, whereas in the first two years it is expected to be over 6 per cent. No matter, once again in the remaining three years the deficit would be magically brought down below even 5 per cent, in fact to as low as 4.1 per cent in the Plan's last year.

The Plan quite rightly emphasises the importance of expanding employment, pointing out that though the rate of population growth may have begun to taper off, the growth of the labour force would be more rapid in the Ninth Plan than in any earlier Plan period and over the 15 years between 1997 and 2012 the size of the labour force would grow from 397 mn to 563 mn. What follows is typically a parade of growth targets: GDP growth of 6.5 per cent per annum in the Ninth Plan to be followed by 7.7 per cent in the next Plan and 8.1 per cent in the one after that, agricultural growth of 4.8 per cent per year over the 15 year period (with foodgrain production going up from 199 mn tonnes to 337 mn tonnes and corresponding figures for virtually every other crop), growth of manufacturing by 9.6 per cent per annum and so on and so forth. If the point is that rapid growth is essential for employment expansion, then of course it is well taken. But beyond the numbers a host of policy issues require urgent attention if the ambitious expectations of growth of different sectors of the economy and of employment are to fructify. To mention one in regard to which very little has been done so far because it is a politically sensitive subject, major changes are imperative in labour laws and regulations to impart a measure of flexibility to the labour market and make possible the organisational restructuring so very necessary in the public sector as much as in the private sector to achieve growth of investment, production and productivity of the required order. The Planning Strategy chapter of the Plan itself mentions a number of other areas where policy action is equally called for. For instance, acknowledging globalisation as a reality "which cannot be denied and also should not be avoided", it is emphasised that globalisation "needs to be managed so that we can derive the maximum advantage from world markets". However, it will hardly be disputed that the Planning Commission has had little or no contribution to make to policy formulation in these and the many other areas which have been the subjects of discussion and policy changes in the nineties.

What is especially sad is that no one is in the least surprised that this should have been so or expects anything different from the Planning Commission. The reason of course is that it is taken for granted that everything about the Commission – its entire orientation and history, its gargantuan size and structure – renders it unfit for anything other than the production of 1,313 page tomes once every five years or so, the once a year routine of haggling with the finance ministry over the size of budgetary support to the annual plan, the leisurely and largely vacuous exchanges with the states over their annual plans and the meaningless charade of 'approving' Plan programmes and projects, big, small and minute. Certainly, as it is today the Planning Commission is just not cut out for 'planning for policy' which, according to the authors of the Ninth Plan's Development Strategy, is what the planning process should focus on. To change this should be at the top of the agenda of the Commission's new deputy chairman. Will he bite the bullet or, like his innumerable predecessors, opt for a life of peace and quiet?

BIHAR

Opportunist Politics

ALTHOUGH it may be debatable whether or not the Rashtriya Janata Dal (RJD) government in Bihar should have been ousted through the imposition of president's rule, no one can deny that it had lost the moral right to rule the state long ago, what with the fodder scam involving its supremo and the connivance of its administration in atrocities on the dalit poor.

In such circumstances, the tears shed over its ouster by some Left leaders betray an utterly cynical lack of concern for the suffering of the people of Bihar and sheer opportunist tactics of harbouring a corrupt politician like Laloo Yadav for the sake of building a Third Front in the fight against the BJP and its allies. While advising Yadav to move the courts against the imposition of president's rule, Jyoti Basu is reported to have said that "killings take place everywhere", suggesting that since they have become the order of the day they do not warrant the ouster of any state government for failing to stop such killings. That Basu's views have very few takers was evident from the scanty public participation in the processions brought out by his party in Calcutta to protest against the dismissal of the Rabri Devi government. In Laloo Yadav's own state, for all his usual bravado, he could not muster much public support, as very few people gathered to watch his theatrical ritual of courting arrest in Patna.

It is obvious that Laloo Yadav's popularity had been ebbing for quite some time. The solidarity that the non-BJP parties (including the Congress) demonstrated last September in protest against the BJP-led central government's recommendation of president's rule was totally missing this time. The Congress, which was supporting the Rabri Devi government till the end, has been distancing itself from it during the last few weeks. The two massacres – at Shankarbigha and Narayanpur, one coming on the heels of the other – were a further blow to Laloo Yadav's image. It was this moment of his growing isolation that provided the BJP-led government at the centre the chance to pounce upon him and impose president's rule. It also helped the BJP to pacify its disgruntled ally, the Samata Party, which had been demanding the ouster of Rabri Devi's government from the beginning.

Thus the BJP, besieged from all corners, has now found a reprieve. By sending the army and paramilitary forces to Bihar the centre is trying to impress the people in Bihar that it is determined to curb the Ranvir Sena and restore law and order in the state. The army and the central forces are however likely to be directed more against Laloo Yadav's followers in the immediate future, if they try to demonstrate and disrupt public order. Once they are taken care of, one would like to see how president's rule leads to the punishment of the upper caste landlords' private goons who are guilty of the massacres. Or will the security forces be deployed against the naxalite enclaves in the state to suppress the militant protests of the rural poor?

While this possibility following president's rule in Bihar cannot be ignored, the Left parties should at the same time beware of turning Laloo Yadav into a martyr. Of late, his ally Mulayam Singh Yadav of the Samajwadi Party has been negotiating with the Left parties to accept Laloo Yadav as a partner in the anti-communal Third Front. The Left leaders have agreed to invite him to the national convention for the formation of an anti-BJP platform in Delhi. After his ouster now in the eyes of these leaders his value may have gone up further (as is evident from Jyoti Basu's observations) and he may be considered a fit ally who deserves all-out support.

But such a step will prove suicidal for the Left and other democratic and secular forces. By allying with a corrupt politician who has also proved his administrative ineptitude, the Left will taint its own image. In fact, instead of giving the BJP a chance to pose as a champion of the dalits and a fighter against corruption, the Left should have had the courage and honesty long ago to lead the agitation against Laloo Yadav. At the state level, since 1990 when he came to power, the CPI and the CPI(M-L) have been at the receiving end of Laloo Yadav's politics of caste-based populism, with the help of which the wily leader has wooed away large chunks of the followers of these parties and brought about a fragmentation among the rural poor in their struggle against the feudal landlords. While the CPI and the CPI(M-L) therefore have been quite understandably opposed to Laloo's entry into the Third Front, the CPI(M) which does not have any base in Bihar and therefore faces no resistance from Laloo Yadav can afford to ignore the plight of the other Left parties. It is no wonder therefore that the CPI(M) at the national level is willing to accommodate Laloo Yadav.

The argument offered by the Left leaders, and the CPI(M) in particular, in defence of including Laloo Yadav in the Third Front is that, even if he is corrupt, he is anti-communal and committed to fighting the BJP But then, while one agrees with giving priority to defeating communal forces, should one trade off the anti-corruption agenda against the anti-communal agenda? Instead of picking up just about any stick to beat the BJP, should not the Left be discerning in its choice of allies? After all, as a stick Laloo Yadav is not all that firm and straight, and will remain an embarrassing liability in any Third Front as along as the fodder scam case continues. By defending and accommodating such a politician, the Left and other secular parties will be liable to be blamed of acquiescence in his corrupt deeds and abetting in his rule which has wrought havoc in Bihar.

MAHARASHTRA

Literary Contretemps

A correspondent writes:

MANY debates have crystallised around the Akhil Bharatiya Marathi Sahitya Sammelan (All-India Marathi Literary Conference) during its 122-year history. The only organisation of its kind among the Indian languages, the sammelan has had little tangible to offer writers as it lacks any executive power. It has remained in the limelight as a platform for voicing the position of the Marathi literary community on cultural and political issues Though Marathi litterateurs have occasionally in the past mobilised this platform or floated temporary alternative ones to put up a fight against particularly blatant instances of political interference in cultural matters, the consistently large financial support extended by successive governments in Maharashtra has transformed the sammelan over the years into a lavish social gathering on the one hand and enabled it to claim to represent the literary mainstream on the other.

It is the hollowness of this claim that was sought to be exposed by the 'vidrohi' sahitya sammelan organised parallelly to the 72nd official literary conference in Mumbai this year. It was, however, Shiv Sena chief Bal Thackeray's characterisation of the official sammelan as a 'bail bazaar' (cattle-show) which upset the literary establishment and propelled the latter into an overt confrontation with the government.

With the coming to power of the Shiv Sena-BJP government, it was natural for Thackeray to fancy that the cultural community, along with the rest, would accept his style of functioning and his supremacy without demur. In this context, the criticism by the noted Marathi litterateur P L Deshpande a couple of years ago of the strong arm tactics of the party in power and by the president of the latest sammelan, though muted, in his presidential address of forces stifling freedom of expression were bound to raise the hackles of the Shiv Sena chief who was expecting the sammelan to be grateful for his government's largesse.

The attitude of Marathi writers towards government patronage has always been marked by contradictions. Among those who boycotted the official sammelan as

a protest against the government's inaction over attacks on journalists, artists and works of art, there were many who have accepted prizes, grants and housing from the present government. Many eminent men of letters, who had opposed the emergency or political interference during A R Antulay's Congress rule in the state, had had no hesitation when Sharad Pawar disbursed three and a half crore rupees during his tenure as chief minister in the late 1980s. Thus the Marathi literary community as a whole has never been able to uncompromisingly distance itself from those in power. Thackeray's reminders about the huge amount drawn from the state's exchequer to organise the grand literary function brought out the pathetic dependence of various literary bodies on state funding.

The 'vidrohi' sahitya sammelan, which drew more response than was expected, interrogated the legitimacy of the official conference from a different standpoint. Instead of opposing the official conference for allowing politicians of a particular hue on the dais, the vidrohis, claiming to take inspiration from Jotirao Phule's exhortation that the toiling masses should form their own literary organisations, pointed out that the official platform operating within brahmanical parameters had deliberately denied recognition to writers of the lower castes throughout its history. In a sense, the vidrohis were reflecting the shift that has taken place in the social base of literary production with the lower castes now in the forefront of literary innovation in style and content. Given that till now almost all the presidents of the all-India conference have been brahmins and have been elected by less than 300 persons in charge of different literary bodies spread across the state, it is clearly misleading to attribute to the conference a representative status. Nevertheless, the challenge before the vidrohis remains that of drawing writers of the constituency they seek to represent on their platform. This involves gaining prestige and status for the 'vidrohi' platform which at present it clearly lacks, as was evident from the minuscule presence of creative writers at the 'vidrohi' sammelan.

Moreover, some of these writers have in the past not hesitated to contest the presidential elections of the all-India conference, thus compounding the problems for the vidrohis. More importantly, Thackeray's fulminations notwithstanding, the recognition granted by successive governments to the all-India conference cannot be overlooked. It will be binding on litterateurs approving of the stand taken by the vidrohis to not only dissociate themselves from the official platform but also free themselves from the government's apron-strings, something which the writers, given their track-record, will find difficult to sustain. On the other hand, having made their political statement, the vidrohis will quickly run out of steam if they do not devise innovative means of promoting their literary culture which remains central to large numbers of the population making the transition from illiteracy to literacy. This will be the audience and readership that the vidrohis need to address if they want to meet the challenge they have set for themselves.

MEDICAL EDUCATION

Too Many Cooks

THE eight grace marks awarded to MBBS examinees of the Mumbai University appears to have opened a can of worms that had been kept tightly closed for decades. For, under acrimonious discussion are not merely issues of whether such a grant of grace marks was justified but the relative roles and responsibilities of the university and the Medical Council. What has arisen in Mumbai is a piquant situation: while the Maharashtra Medical Council is responsible for the quality of education in medical colleges in the state, it cannot apparently interfere with the method by which students are evaluated and eventually allowed to apply to the MMC for the grant of licences to practise medicine. Even more importantly, the issue puts a rhetorical question mark on the kind of doctors that Indian medical colleges are producing.

The issue was simple enough: several students who had done well in other subjects had failed in the paper on preventive and social medicine, a subject most medical students routinely neglect and have little use for in their future lucrative careers. Given this, it was unacceptable that the careers of students who did so brilliantly should be damaged merely because they could not clear a PSM paper. A petition was duly launched seeking grace marks, on the ground that the question paper was unusually 'tough'. Following this the university granted eight grace marks to all the students who had failed. All would have been well if a curious journalist had not sought the 'tough' question paper. It contained such assignments as short notes on 'Alcoholics Anonymous', 'efficacy of BCG vaccine', 'activities of UNICEF', 'urban malaria programme', 'social factors in STDs', 'directly observed therapy in tuberculosis', 'Child Relief and You', 'control of rheumatic heart disease'. A much disturbed Maharashtra Medical Council took it upon itself to constitute an investigation into the case, breaking wide open delicate and difficult issues of the relative jurisdiction of the university and the council. It would be easy enough to decry the medical student who found it difficult to write a short note on BCG vaccine or the activities of the organisation named CRY. However, the students' ignorance is only a reflection of the inadequate grounding of medical education in the country in current ground realities, in the social dimensions of disease and the role of preventive public health care. There have been numerous committees and even a draft medical education policy suggesting long overdue changes which have never seen the light of day.

Similarly the other issue of the who is in charge of medical education has also been buried under for a long time. The graduate medical degree is awarded by the university and the medical colleges are under its jurisdiction. However, no medical college may function without being duly recognised by the state medical council. The council has set up guidelines and minimum requirements, such as the kind of hospital which should be attached to a medical college, the qualification of teachers, the equipment and other services, including cadavers available to the students, etc. In essential aspects the purview of the Medical Council has not changed much since the time the Medical Council of India came into being long before independence. Its main purpose then was to ensure minimum standards for medical graduates in India while shifting the burden from the British Medical Council of having to deal with the 'brown' doctors.

The council played a low key role for as long as medical colleges were mostly state-run and their numbers were small. By the late 1980s the burgeoning of private medical colleges and hospitals resulted inevitably in exposing the complete powerlessness of the council to implement requisite standards and monitor them, leading to a move to review the Medical Council Act and give it more teeth. In recent years, several factors have forced the state councils to clean up their act. It is not surprising that the MMC has taken upon itself the task of enquiring into the 'grace marks' issue. While there are, according to the MMC, few precedents to this case, it is fully within its jurisdiction to set up such a committee. However, it is not clear if the council has the right to 'interfere' with the conduct of the examination by the university. The issue has been further complicated by the fact that only recently Maharashtra has passed a bill setting up a health university in Nashik to which all medical colleges will be attached and which presumably will be the authority that will conduct examinations. With the none too heartening experience of health universities in Tamil Nadu, medical education in Maharashtra, it would seem, will have to suffer one cook too many.

CURRENT STATISTICS

***EPW* Research Foundation**

The revised national income series with the base 1993-94=100 makes an upward revision of GDP by about 10 to 12 per cent following the inclusion of new items/improvements effected in 17 sectors. As the bulk of the new items are of a consumption nature, higher revisions have been made in private final consumption expenditure in the domestic market. The revision has made only a fractional difference to the annual growth in real GDP, but the domestic saving ratio has fallen sharply from 26 per cent to 24/23 per cent While the capital inflow figures now used are higher, the capital formation rate which ranged from 25.4 to 25 8 per cent during 1994-95 to 1996-97 has declined to 24 8 per cent in 1997-98

Macroeconomic Indicators

Index Numbers of Wholesale Prices (1981-82 = 100)	Weights	Jan 30, 1999	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
All Commodities	100.00	353 9	-0.3	4.6	5.3	5.0	5 7	5 3	6.9	5.0	10 4
Primary Articles	32 30	383 4	-0.1	8.1	4.9	10.2	7.6	5.5	7.0	5 4	12 7
Food Articles	17.39	441 0	-0.5	8.6	3.9	12.2	7.5	4.0	9.6	9.8	11.9
Non-Food Articles	10.08	391 2	0.6	9.7	6.9	9.8	8 6	8 5	3 5	-1 9	15.5
Fuel, Power, Light and Lubricants	10 66	374 1	-2.1	-0.9	10.0	-2.6	9 4	11.4	16 9	3.7	2.4
Manufactured Products	57.04	333 4	0.1	3.6	4.5	3 4	3.8	4 0	4.9	5.0	10.7
Food Products	10.14	342 3	-1 2	4.6	6.9	5 1	5 9	5 5	14.1	-0.7	8.1
Food Index (computed)	27.53	404.6	-0.7	7.3	4 9	9 8	6.9	4 5	11 1	6 3	10 6
All Commodities (Average Basis) (April 4, 1998 - January 30, 1999)	100 00	352 1	-	6.9	5.2	7 2	4.8	4.8	6.4	7.8	10 9

Cost of Living Indices	Latest Month	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
Industrial Workers (1982=100)	429 0[12]	-2.1	15.3	6.3	12.9	6.0	8.3	10 0	8 9	9 7
Urban Non-Man Emp (1984-85=100)	345 0[12]	-1.4	12 4	6.2	10.6	5 5	7 2	10.2	8 2	9.9
Agri Lab (1986-87=100) (Link factor 5 89)	305 0[12]	-1 6	15.1	0.8	12 1	1 1	3.8	10 5	7 2	11 1

Money and Banking (Rs crore)	Jan 15, 1999	Variation: Over Month	Over Year	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96
Money Supply (M_3)	934666	9413(1 0)	154311(19 8)	109277(13.2)	78507(11 2)	123451(17 6)	97841(16 2)	72581(13 7)
Currency with Public	167155	4872(3 0)	21862(15 0)	21973(15 1)	13207(10.0)	13095(9.9)	13829(11.7)	17577(17 5)
Deposit with Banks*	764166	5225(0 7)	132997(21.1)	86564(12.8)	63602(11.2)	110036(19 4)	84162(17 5)	55042(12 9)
Net Bank Credit to Govt	382636	1983(0 5)	63523(19 9)	52017(15.7)	30493(10 6)	42000(14 6)	30840(12.0)	35360(15 9,
Bank Credit to Comml Sector	465788	15685(3.5)	61638(15.3)	33598(7.8)	27843(7 4)	55883(14 9)	31659(9.2)	51925(17 7)
Net Foreign Exchange Assets	139778	2728(2.0)	21389(18.1)	13209(10.4)	12892(12.2)	21072(20 0)	23356(28 4)	3109(3 9)
Reserve Money (Jan 29)	244102	1673(0.7)	29822(13.9)	17869(7.9)	14295(7.1)	26248(13 1)	5527(2.8)	25176(14 9)
Net RBI Credit to Centre	150495	846(0.6)	21607(16.8)	16879(12 6)	8186(6 8)	12915(10.7)	1934(1 6)	19855(20 1)
RBI Credit to Bks/Comm Sector	20218	587(3.0)	5558(37.9)	4936(32.3)	1407(10.6)	2029(15.3)	-15557(-54 0)	8747(43 6)
Scheduled Commercial Banks (Jan 29)								
Deposits	690269	7188(1.1)	122034(21 5)	84859(14.0)	62636(12.4)	99811(19 7)	71780(16.5)	46960(12 1)
Advances	349829	5805(1 7)	42768(13 9)	25750(7 9)	28660(10 3)	45677(16 4)	24386(9 6)	42455(20 1)
Non-Food Advances	332773	4850(1 5)	38128(12.9)	21179(6.8)	23841(8 8)	40790(15.1)	26580(10 9)	44938(22.5)
Investments (for SLR purposes)	251006	1323(0.5)	40119(19.0)	32301(14.8)	20374(10.7)	28192(14.8)	25731(15.6)	15529(10 4)
Commercial Investments	45584	569(1.3)	10617(30.4)	12500(37.8)	15556(80 1)	13673(70.4)	4412(29 4)	925(6 6)

@ Includes Rs 17,945 crore on account of proceeds from RIBs, excluding which the year-on-year growth of money supply would be 17.5 per cent

Index Numbers of Industrial Production (1993-94=100)	Weights	December 1998	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Full Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
General Index	100 00	150 0	139.2(3.5)	134.5(6.7)	137.6(6.6)	129 0(5.5)	122 3(12.8)	108 4(8.4)
Mining and Quarrying	10 47	127 0	117.3(-1.1)	118.6(5.5)	122.4(5 9)	115.6(-2 0)	117.9(9 6)	107 6(7 6)
Manufacturing	79 36	154.0	142.6(3.7)	137 5(6 9)	140.5(6.7)	131.8(6 7)	123.5(13 8)	108 5(8.5)
Electricity	10 17	142.4	135 8(6.6)	127.4(6 0)	130.0(6.7)	121 9(3 9)	117.3(8 1)	108 5(8.5)

Capital Market	Feb 12, 1999	Month Ago	Year Ago	1998-99 So Far: Trough	1998-99 So Far: Peak	1997-98: Trough	1997-98: Peak	End of Fiscal Year: 1997-98	1996-97	1995-96
BSE Sensitive Index (1978-79=100)	3337(1 4)	3353	3293(-5.5)	2783	4281	3210	4548	3893(15.8)	3361(-0.2)	3367(3 3)
BSE-100 (1983 84=100)	1468(3 5)	1496	1419(-6.5)	1242	1890	1401	1980	1697(15 9)	1464(-5.5)	1549(-3 5)
BSE 200 (1989-90=100)	340(7 5)	345	316(-6.2)	289	429	314	440	377(14.9)	328(-5 0)	345(-6.3)
S and P CNX-50 (Nov 3, 1995=1000)	970(1 2)	964	959(-4.2)	812	1213	941	1140	1117(15.4)	968	na
Skindia GDR Index (Jan 2, 1995=1000)	610(-28 8)	656	857	515	1015	765	1320	940(1.1)	930(-4 4)	973(-0 6)

Foreign Trade		December 1998	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
Exports	Rs crore	11853	101850(10.0)	92599(8.0)	126286(6.3)	118817(11.7)	106353(28 6)	82674(18.5)
	US $ mn	2785	24239(-4 5)	25369(4.6)	33980(2.6)	33470(5.3)	31797(20 8)	26330(18.4)
Imports	Rs crore	14464	132447(20.4)	[illegible]0018(12.5)	151554(9.1)	138920(13 2)	122678(36.3)	89971(23.1)
	US $ mn	3399	31521(4.6)	30141(8.9)	40779(5.8)	39132(6.7)	36678(28.0)	28654(22.9)
Non-POL	US $ mn	3004	27102(12.3)	24143(17.0)	32562(11.9)	29096(-0.2)	29152(28.3)	22727(29 5)
Balance of Trade	Rs crore	-2611	-30597	-17419	-25268	-20102	-16325	-7297
	US $ mn	-614	-7282	-4772	-6799	-5663	-4881	-2324

Foreign Exchange Reserves (excluding gold)	Feb 5, 1999	Feb 6, 1998	Mar 31, 1998	Variation Over: Month Ago	Year Ago	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95	1993-94
Rs crore	117100	94506	102511	2114	22594	14589	14131	22136	21649	-7302	18402	27430
US $ mn	27617	24413	25976	524	3204	1641	2044	3607	5243	-3690	5640	8724

Notes (i) Superscript numeral denotes month to which figure relates, e g superscript 12 stands for December; (ii) Figures in brackets are percentage variations over the specified

Revised National Income Series

Table: National Product, Consumption Expenditure, Saving and Capital Formation: A Comparison of New and Old Series *(Rs crore)*

Item	New Series										Old Series				Excess of New Series over Old Series (At Current Prices)			
	At 1993-94 Prices					At Current Prices					At Current Prices							
	1998-99	1997-98	1996-97	1995-96	1994-95	1997-98	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
1 Domestic Product																		
1.1 Gross Domestic Product (GDP)	1109983	1049191	998978	926412	861064	1426670	1285259	1103238	943408	799077	1149215	1006286	868019	732874	136044	96952	75389	66203
at factor cost	*5.8*	*5.0*	*7.8*	*7.6*	*7.8*	*11.0*	*16.5*	*16.9*	*18.1*		*14.2*	*15.9*	*18.4*	*16.2*	[11.8]	[9.6]	[8.7]	[9.0]
1.2 Net Domestic Product (NDP)	989852	936919	894960	830091	771996	1278606	1153977	989129	846408	716118	1022033	894700	772680	651322	131944	94429	73728	64796
at factor cost	*5.6*	*4.7*	*7.8*	*7.5*	*7.8*	*10.8*	*16.7*	*16.9*	*18.2*		*14.2*	*15.8*	*18.6*	*16.8*	[12.9]	[10.6]	[9.5]	[9.9]
1.3 GDP at market prices		1151014	1096433	1022285	946335	1563552	1409849	1217963	1037842	876952	1276974	1118964	963492	810749	132875	98999	74350	66203
		5.0	*7.3*	*8.0*	*7.9*	*10.9*	*15.8*	*17.4*	*18.3*		*14.1*	*16.1*	*18.5*	*14.9*	[10.4]	[8.8]	[7.7]	[8.2]
2 National Product																		
2.1 Gross National Product (GNP)	1099704	1038692	988255	913810	847849	1413231	1272177	1089754	930325	786997	1135370	992802	854936	720531	136807	96952	75389	66466
at factor cost	*5.9*	*5.1*	*8.1*	*7.8*	*7.7*	*11.1*	*16.7*	*17.1*	*18.2*		*14.4*	*16.1*	*18.7*	*16.4*	[12.0]	[9.8]	[8.8]	[9.2]
2.2 Net National Product (NNP)	979573	926420	884237	817489	758781	1265167	1140895	975645	833325	704038	1008188	881216	759597	638979	132707	94429	73728	65059
at factor cost i e. National Income	*5.7*	*4.8*	*8.2*	*7.7*	*7.8*	*10.9*	*16.9*	*17.1*	*18.4*		*14.4*	*16.0*	*18.9*	*17.0*	[13.2]	[10.7]	[9.7]	[10.2]
2.3 GNP at market prices		1140515	1085710	1009683	933120	1550113	1396767	1204479	1024759	864872	1263129	1105480	950409	798406	133638	98999	74350	66466
		5.0	*7.5*	*8.2*	*7.9*	*11.0*	*16.0*	*17.5*	*18.5*		*14.3*	*16.3*	*19.0*	*15.0*	[10.6]	[9.0]	[7.8]	[8.3]
2.4 NNP at market prices	.	1028243	981692	913362	844052	1402049	1265485	1090370	927759	781913	1135947	993894	855070	716854	129538	96476	72689	65059
		4.7	*7.5*	*8.2*	*7.9*	*10.8*	*16.1*	*17.5*	*18.7*		*14.3*	*16.2*	*19.3*	*15.4*	[11.4]	[9.7]	[8.5]	[9.1]
3 Consumption Expenditure																		
3.1 Private final consumption expenditure in the domestic market		718269	691182	647371	607348	960401	886230	757384	660460	567239	734866	649094	575335	498927	151364	108290	85125	68312
		3.9	*6.8*	*6.6*	*7.1*	*8.4*	*17.0*	*14.7*	*16.4*		*13.2*	*12.8*	*15.3*	*14.6*	[20.6]	[16.7]	[14.8]	[13.7]
3.2 Government final consumption expenditure	.	158514	132785	119305	103688	173864	144049	127024	107169	96240	132166	115957	100498	89926	1183	11067	6671	6314
		19.4	*11.3*	*15.1*	*7.7*	*20.7*	*13.4*	*18.5*	*11.4*		*10.3*	*10.4*	*10.4*	*11.1*	[0.9]	[9.5]	[6.6]	[7.0]
4 Per capita NNP at factor cost	10047	9660	9377	8819	8357	13193	12099	10525	9178	7902	10771	9578	8403	7196	1328	947	775	706
(per capita national income)	*4.0*	*3.0*	*6.3*	*5.5*	*5.8*	*9.0*	*15.0*	*14.7*	*16.1*		*12.5*	*14.0*	*16.8*	*14.9*	[12.3]	[9.9]	[9.2]	[9.8]
5 Domestic Saving																		
5.1 Gross		.				361518	344391	293560	251522	191588	333816	283003	247087	183710	10575	10557	4435	7878
5.1.1 Per cent of GDP						23.1	24.4	24.1	24.2	21.8	26.1	25.3	25.6	22.7	[3.2]	[3.7]	[1.8]	[4.3]
5.2 Net						213454	213109	179451	154522	108629	206634	171417	151748	102158	6475	8034	2774	6471
5.2.1 Per cent of NDP				.		15.1	16.7	16.3	16.4	13.7	18.0	17.0	17.5	14.0	[3.1]	[4.7]	[1.8]	[6.3]
6 Capital Formation																		
6.1 Gross		294108	285508	263049	241565	387377	361687	314340	263415	196379	321848	304980	241379	172532	39839	9360	22036	23847
6.1.1 Per cent of GDP		25.6	26.0	25.7	25.5	24.8	25.7	25.8	25.4	22.4	25.2	27.3	25.1	21.3	[12.4]	[3.1]	[9.1]	[13.8]
6.2 Net		181836	181490	166728	152497	239313	230405	200231	166415	113420	194666	193394	146040	90980	35739	6837	20375	22440
6.2.1 Per cent of NDP	.	17.5	18.3	18.0	17.8	16.9	18.0	18.1	17.7	14.3	16.9	19.2	16.8	12.5	[18.4]	[3.5]	[14.0]	[24.7]
Memo Item:																		
Gross Domestic Product at factor cost at 1980-81 prices		311883	296845	276132	257700													
		5.1	*7.5*	*7.2*	*7.8*													

Figures in italics are percentage variations over the previous year Figures in brackets are excess of the new series over the old series in per cent . not available

SUPREME INDUSTRIES

Successful Restructuring

CONTROLLED by the Taparias, Supreme Industries is engaged in the manufacture of injection moulded plastic products, extruded products and machinery and moulds. It also trades in polymers, yarn and colourants. The company performed well in 1997-98, when its net sales increased by 14.8 per cent over the pervious year. While operating profit improved by 7.4 per cent, a fall in interest charges helped the company post a 30.2 per cent increase in its bottomline. Though earnings per share increased from Rs 11.9 to Rs 14.6, the company did not raise the dividend rate but maintained it at last year's level of 60 per cent. Book value, meanwhile, moved up from Rs 117.2 per share to Rs 125.2 per share. The company's stock currently quotes at around Rs 185 on the bourses, discounting its 1997-98 earnings by 12.7 times.

The company claims that its encouraging performance is mainly due to the successful restructuring exercise carried out over the last couple of years. The effects of the recast are evident in the increase in volumes. Polymers processed during the year increased by about 29 per cent to 59,945 metric tonnes. Apart from the fruits of restructuring, the weakening of global prices of polymer, which is the company's main raw material, has also benefited Supreme Industries. Unlike earlier, the company is now sourcing a large part of its requirements locally, and consequently the depreciation in the rupee has not affected it much. The company has been constantly focusing on reducing the import content of its raw material consumption This is evident from the fact that as compared to 45 per cent of imported raw material used in 1995-96, the percentage came down to 27 per cent in the following year and is now down to 10 per cent in the year under review.

The company's project for production of material handling crates at Pondicherry (Unit I) and Talegaon has been consolidated and higher capacity has been made available as a result. The company has also commissioned a fabricated fittings division, which will help it to expand the range on offer. Supreme Industries has also commissioned additional capacity in its protective packaging business, in addition to acquiring a unit in the west, thus gaining an advantage by reducing freight costs. Three of the company's flexible packaging divisions have been shifted to Khopoli in order to save on production costs.

As its multi-layered sheets business was not profitable, the company has diverted it to making thermoformed food serviceware products which are used by producers of soft drinks, dairy products and food products.

Meanwhile, the promoters of the company, the Taparias, have divested a part of their holdings in Supreme Industries in the open market to pay off unsecured loans which were contracted at the time of the rights issue to subscribe to their share of the rights in June 1993. After the divestment, the promoters' holding has declined from 43.1 per cent to 39.06 per cent in the company's enlarged capital of Rs 9.76 crore.

UNITED BREWERIES

Success in Malt Research

The flagship company of the Vijay Mallya group of companies, United Breweries (UB) put up a lacklustre performance in 1997-98. While net sales declined by 2.8 per cent over the previous year, operating profit crashed by 24 per cent. But a sharp increase in non-operating profit, mainly on account of profit on sale of investments, helped the company to almost double its bottomline. Though the company's earnings per share increased from Rs 2.85 to Rs 5.68, it prudently decided against raising the dividend rate and maintained it at last year's level of 20 per cent. Book value, meanwhile, edged up from Rs 160.7 per share to Rs 163.9 per share. The company's equity share is quoted at around Rs 22 on the bourses, discounting its 1997-98 earnings per share by a mere 3.9 times, reflecting the low market assessment of the stock.

Despite its poor show on the profitability front, UB, which is famous for its Kingfisher brand of beer, continues to dominate the mild beer segment in the country, increasing its market share by 2

(Rs lakh)

Financial Indicators	Videocon Appliances March 1998	Videocon Appliances March 1997	Supreme Industries June 1998	Supreme Industries June 1997	United Breweries March 1998	United Breweries March 1997
Income/appropriations						
1 Net sales	44023	38595	41407	36084	25237	24555
2 Value of production	44023	38595	42038	36134	25435	24335
3 Other Income	104	358	1045	1249	2395	2664
4 *Total income*	44127	38953	43083	37383	27830	26999
5 Raw materials/stores and spares consumed	27116	26291	21853	19339	10635	8658
6 Other manufacturing expenses	518	483	6303	5428	1268	4438
7 Remuneration to employees	989	983	1357	1112	2562	1940
8 Other expenses	4722	3376	5804	4273	10384	8037
9 *Operating profit*	10782	7820	7766	7231	2981	3926
10 Interest	5053	4392	4156	4208	2955	3092
11 *Gross profit*	5627	3445	3687	3040	3703	2898
12 Depreciation	2851	1792	2014	1824	1146	1003
13 *Profit before tax*	2776	1653	1671	1214	2557	1895
14 Tax provision	10	49	90	NA	552	892
15 *Profit after tax*	2766	1604	1581	1214	2005	1003
16 Dividends	364	310	805	704	779	779
17 Retained profit	2402	1294	776	510	1226	224
Liabilities/assets						
18 Paid-up capital	3308	2808	2091	2091	3781	3774
19 Reserves and surplus	20536	20093	11748	11048	54332	53113
20 Long-term loans	28817	29742	21167	21498	11747	12346
21 Short-term loans	13584	14091	5393	4662	NA	NA
22 Of which bank borrowings	13584	14091	5393	3628	NA	NA
23 Gross fixed assets	44148	38412	35047	27163	57872	59109
24 Accumulated depreciation	12802	7719	10986	8980	9084	8207
25 Inventories	12719	15288	4441	4313	2093	1742
26 Total assets/liabilities	75111	78150	50646	45355	85450	82326
Miscellaneous items						
27 Excise duty	7513	7152	6501	5087	5149	1162
28 Gross value added	11509	8509	8521	7359	13288	9489
29 Total foreign exchange income	1759	NA	1525	1641	420	11
30 Total foreign exchange outgo	7319	12867	5461	5394	310	137
Key financial and performance ratios						
31 Turnover ratio (sales to total assets) (%)	58.61	49.39	81.76	79.56	29.53	29.83
32 Sales to total net assets (%)	66.45	57.83	102.50	91.82	36 13	35.47
33 Gross value added to gross fixed assets (%)	26 07	22 15	24.31	27 09	22 96	16 05
34 Return on investment (gross profit to total assets) (%)	7 49	4.41	7.28	6.70	4.33	3 52
35 Gross profit to sales (gross margin) (%)	12 78	8 93	8 90	8.42	14 67	11 80
36 Operating profit to sales (%)	24 49	20.26	18 76	20.04	11 81	15 99
37 Profit before tax to sales (%)	6.31	4 28	4 04	3.36	10 13	7 72
38 Tax provision to profit before tax (%)	0.36	2 96	5 39	NA	21 59	47.07
39 Profit after tax to net worth (return on equity) (%)	11.60	7.00	11.42	9.24	3 45	1.76
40 Dividend (%)	10.00	10.00	60.00	60 00	20.00	20.00
41 Earning per share (Rs)	8.36	5 71	14 59	11 85	5 68	2.85
42 Book value per share (Rs)	72 08	81 56	125 19	117 16	163.87	160.72
43 P/E ratio	2 21	NA	12.68	NA	3.87	NA
44 Debt-equity ratio (adjusted for revaluation) (%)	120 86	129 87	159 44	172.04	20.21	21.70
45 Short-term bank borrowings to inventories (%)	106.80	92.17	121.44	84.12	NA	NA
46 Sundry creditors to sundry debtors (%)	67 17	96 97	61.74	25.77	235.56	374.36
47 Total remuneration to employees to value added (%)	8.59	11.55	15.93	15.11	19.28	20.44
48 Total remuneration to employees to value of production (%)	2.25	2 55	3.23	3.08	10.07	7.97
49 Gross fixed assets formation (%)	14.93	22 75	29 02	NA	–2.09	NA
50 Growth in inventories (%)	–16.80	50.38	2.97	NA	20 15	NA

NA: means not available.

per cent despite the overall drop of 2 per cent in the segment as a whole.

UB claims to have achieved a breakthrough in malt research with the evolution of the Vijay M 130, a strain that can be grown across Indian plains. While the Indian Council of Agricultural Research's various wheat and barley research centres, especially the one at Karnal, are experimenting with a host of new barley strains, UB's Vijay M 130 has reportedly taken the lead and has been released for commercial growing. The new strain of barley is claimed to be higher yielding, to have a greater starch content and be capable of being grown in the south where barley has never been grown. The company is considering patenting the variety.

Meanwhile the battle between liquor majors Kishore Chhabria and Vijay Mallya for the controlling stake in Herbertsons continued with the latter accusing the former of violating SEBI's take-over code while acquiring the company's shares from the open market. However, the Chhabria camp has taken refuge in the fact that when the acquisition was made in 1993, the then take-over code did not address a situation wherein an acquisition of an unlisted company, which holds shares of a listed company, triggers the code. The new take-over code which came into effect from February 1997 has plugged this loophole.

VIDEOCON APPLIANCES

Rise in Sales

Videocon Appliances, a Dhoot group company, is engaged in marketing air conditioners, refrigerators, programmable washing machines, microwave ovens, assemblies and sub-assemblies. The company fared well in 1997-98 when its net sales increased by 14.1 per cent over 1996-97. Operating profit surged by 37.9 per cent. A somewhat lower increase in interest charges helped the company post a 72.4 per cent higher net profit over the same period. However, though earnings per share improved from Rs 5.7 to Rs 8.4, the company decided to maintain the dividend at 10 per cent.

Due to the conversion of non-tradable warrants issued earlier, the company's equity capital increased from Rs 28.1 crore to Rs 33.1 crore. Book value, meanwhile, fell from Rs 81.6 per share to Rs 72.1 per share, mainly on account of the increase in equity. The company's equity share is presently traded at around Rs 18.5, discounting its 1997-98 earnings per share by a mere 2.2 times, reflecting the poor discounting enjoyed by trading companies.

Misplaced Focus on Fiscal Deficit

One of the disconcerting aspects of fiscal management since the beginning of the stabilisation programme in 1991-92 has been the failure to focus on correcting the growing revenue deficit of the central government. The focus instead has been on reducing gross fiscal deficit without taking into account the structure of financing of this deficit.

I
Fiscal Crisis

THAT the government of India would face a fiscal crisis during the current year was widely anticipated, but the persistent sluggishness in industrial activity and the consequential slow-down in revenue receipts have made the crisis a deep and unprecedented one. One of the disconcerting aspects of fiscal management right from the beginning of the stabilisation programme in 1991-92 has been the failure to focus on correcting the growing revenue deficit of the central government; the focus instead has been on reducing gross fiscal deficit without taking into account the structure of financing this deficit – a clear case of distorted priorities. A concerted focus on narrowing the revenue deficit also had the potential of generating a virtuous circle leading to arresting of the growth of fiscal deficit. In that framework, it is not the size of the gross fiscal deficit that should be worrying; what matters are the purposes for which it is spent (plan and capital expenditures as distinguished from revenue expenditures) and the sources of financing it (small savings, PF, etc, as against sizeable market borrowings).

The monthly data released for the first time by the Controller General of Accounts (CGA) under the IMF's special data dissemination standards (SDDS) for the current year are an eye-opener. The data available are up to the end of December and the bulge in budgetary operations in the fiscal year's last quarter may alter the overall scene somewhat; even so, the essential features of the fiscal trends this year as revealed so far are unlikely to be reversed. A glaring revelation is the massive size of market borrowing to finance the growing non-plan expenditure and, in turn, the galloping of the revenue deficit. During April-December 1997 the revenue deficit had reached only 44 per cent of the budgeted amount; this year during the same nine-month period it has touched 75.7 per cent suggesting that the revenue deficit may finally cross the budgeted amount of Rs 48,068 crore (3 per cent of GDP) by at least one-third, that is, up to 4 per cent of GDP. A major cause for this has been the slackness in revenue receipts, both tax and non-tax, and a persistent decline in the tax to GDP ratio.

In consequence, plan expenditures as well as capital expenditures have seen niggardly growth. Even so, the government's market borrowings have skyrocketed. The centre's net borrowings have reached Rs 60,723 crore, i e, Rs 12,397 crore more than the budgeted amount for the whole year (Rs 48,326 crore). Such large borrowings have been made possible, without any serious repercussions on the prevailing interest rate structure, because of unprecedentedly large contribution from the RBI and that too through the private placement route. The government also appears to have repeatedly used the the RBI's ways and means limit of Rs 7,000 crore.

As for the sources of financing the fiscal deficit, as in the past two years, this year too the collections of small savings, public provident funds, and state provident funds, have been extremely buoyant (about 75-80 per cent of which are given to states an loans and advances). Such collections, which constitute a form of direct savings of the community, are to be welcomed and promoted. This compositional aspect of the fiscal deficit has hardly received the attention it deserves. If GFD touches 6.5 per cent of GDP as it is predicted to in the current year (against the budget estimate of 5.4 per cent), market borrowings would contribute less than 4 per cent of GDP, with the balance coming from small savings, provident funds, etc

II
Call and Forex Markets

The call money rates were largely range-bound around 9 per cent but firm during the month except for a brief aberration during January 14-16 when the rates shot up to as high as 25-35 per cent (Graph A). After opening low at 6.50-6.75 per cent on the New Year day which was a reporting Friday, the call rates faced firmness during

TABLE 2: DAILY QUOTATIONS OF HIGHS AND LOWS OF CALL RATES IN PER CENT PER ANNUM. SIMPLE STATISTICAL CHARACTERISTICS

	All Four Weeks of the Month	January 1999 Week Ended				All Five Weeks of the Month	Jan 1, 1999	December 1998 Week Ended			
		29*	22	16*	8			24*	18*	11	4*
Simple Mean	10.6	8 5	11 4	11 8	9 0	8.3	8 7	9.1	8 0	8 0	7.8
Standard Deviation	5.7	0 3	6.3	5.0	0.2	0.9	1.2	0 3	1.0	0.1	0.5
Coefficient of Variation (percentages)	53.7	4 1	55.5	42.4	2.5	10 4	13 2	3.1	12 1	1.4	6 8

* Data for reporting Fridays (RF) are omitted.

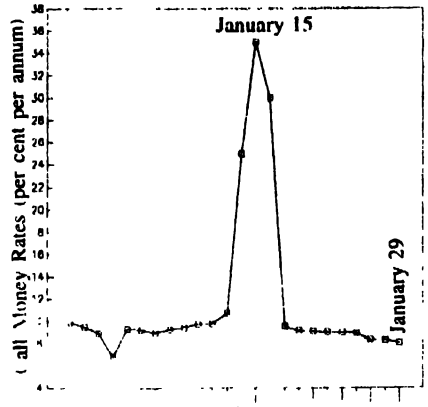
TABLE 1: CALL MONEY RATES

(Per cent per annum)

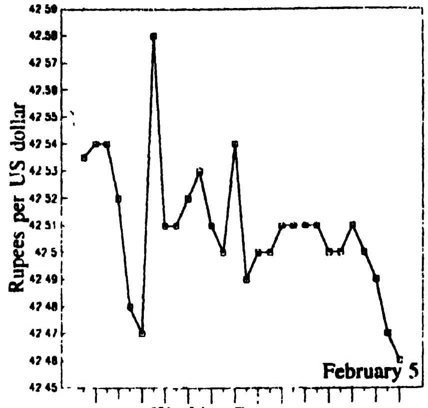
Items	January 1999					December 1998			
	(RF)	22	15(RF)	8	1(RF)	24	18(RF)	11	4(RF)
Weekly range	6.00-9 00	8 50-35.00	8.90-30 00	8.50-9 50	5 50-10.00	8 60-9.50	5.60-9.00	7 90-8 20	5.75-8 10
	(2 00-120.00)	(15.00-100 00)	(2.00-10.00)	(8.00-9 75)	(2.00-9.50)	(7 75-14.00)	(0.75-30.00)	(6.50-9.00)	(0.10-9 00)
Weekend (Friday)	6.50-8.00	8.00-9.00	10.00-35.00	9.00-9 40	6 50-6.75	9 25-9.60	5.50-6.50	8 00-8.05	6.25-7 50
	(1 00-12.00)	(55.00-120.00)	(1.50-6.00)	(8.75-10.00)	(5.00-7.00)	(7 75-9.00)	(1.00-12.00)	(8.25-9.00)	(1.50-7.00)
DFHI lending rates (range)	7.00-9.20	8 90-34.00	9.00-30.00	8.75-9.75	6.25-10.25	8.90-9.50	6 00-9.15	na	5.10-8.25
	(2.25-110 00)	(25.00-75 00)	(5.50-1.00)	na	(4.00-9.00)	(8.00-14.00)	(1.10-30.00)	(7 50-9.25)	(1.00-8 75)

Figures in parentheses represent weekly range during similar period last year

Graph A: Daily Top-End Quotations of Call Money Rates, January 1999



Graph B: Spot Quotations for the US Dollar in the Domestic Inter-Bank Market – January 1999



the first fortnight due to drying up of liquidity following the RBI's heavy open market operations (over Rs 2,500 crore as per SGL data), outflows due to 364-day treasury bills auctions (Rs 750 crore), and absence of the expected return flow from the earlier tax outflows, as also bank strike (January 12) and holidays in many parts of the country. Many banks did not anticipate the possible disruptions to liquidity management from these events and found themselves scrambling for funds for last minute CRR covering; the panic drew banks to borrow at 25 per cent on January 14 and even at 35 per cent on January 15, the latter being unusual for a reporting Friday (Tables 1 and 2). Most primary dealers availed of the RBI refinance including the special liquidity support announced in April 1998 against the collateral of government securities. As a result, the RBI lendings to "others" shot up from Rs 4,269 crore on January 1 to Rs 8,492 crore on January 15.

The liquidity, however, returned to the system in the second fortnight with an inflow of Rs 3,000 on January 18, due to the maturity of the zero coupon 1999 paper which was the first of its kind to be issued in 1994. For facilitating redemption, the government made on the same day two private placements worth Rs 3,000 with the RBI, which boosted the market sentiment and eased the call rates as such borrowing did not impinge immediately on the market liquidity. The liquidity continued to remain comfortable during the fortnight as there were fresh inflows of about Rs 1,340 crore from interest payments on dated securities and redemption of TBs (Table 3). The last few days of the month saw the call rates ruling lower at a little over 8 per cent and on the last reporting Friday (January 29) they dipped to a range of 6.50 to 8 per cent – a market sentiment which was also influenced by a huge Rs 5,000 private placement again by the government with the RBI on that day.

The foreign exchange market remained extremely calm and the rupee rate experienced a slight application just below Rs 42.50 per US dollar during the month (Graph B). Even in trade-weighted terms the rupee remained stable *vis-a-vis* five major currencies (RBI monthly *Bulletin* for February 1999). The stability in the spot market was also reflected in the forward market with the six-month premia declining from about 7.50 per cent per annum in the previous month and remaining in the range of 6.40 to 6.70 per cent (Graph C). The FIIs were net buyers on Indian markets to the tune of $ 106.6 million during January, and another $ 9.9 million up to February 12. As such, despite slow-down on the FDI front, and despite widening conventional merchandise deficit, the foreign currency flow has remained positive, which has resulted in an increase in the foreign currency assets of the RBI by US $ 575 million between end-December and February 5. The authorised dealers' excess spot purchases over spot sales under the merchant transactions during January reflected this positive flow.

Table 4. Trends in Centre's Market Borrowings

(Rupees crore)

Descriptions	1997-98		1998-99					
	Actuals		Budget Estimates			Actuals**		
	Gross	Net	Gross	Repayment	Net	Gross	Repayment	Net
1 Market Borrowings	3,000	1,002						
2 Other Medium and				14,803		83,753	14,803	68,950
Long-term Loan	40,390	31,486	79,376		48,326			
3 364-Day Treasury Bills	16,247	8,006		16,247		7,950	16,177	(8,227)
Total	59,637	40,494	79,376	31,050	48,326	91,703	30,980	60,723
of which								
Ten-year and above maturity	10,000(23 per cent)	*				31,209(37 per cent)	*	
Private Placements with RBI	11,000(25 per cent)	*				30,000(36 per cent)	*	

* Per cent of dated securities. ** Up to February 16, 1999

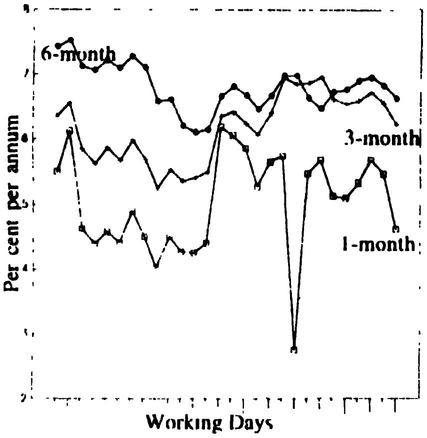
Table 3. Estimated Flow of Liquidity into the Financial System during January 1999

(Rupees crore)

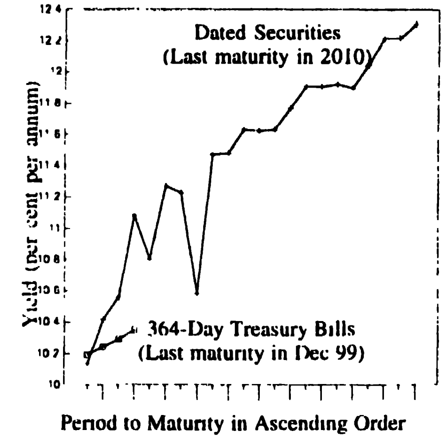
Week Ended	29			22			15			8			1		
	Inflow	Outflow	Net	Inflow	Outflow	Net	Inflow	Outflow	Net	Inflow	Outflow	Net	Inflow	Outflow	Net
Auctions and Redemptions															
14-day T bills	480	500	-20	100	11	89	58	480	-422	261	100	161	300	58	242
91-day T bills	271	100	171	540	30	510	536	160	376	200	100	100	160	114	46
364-day T bills	-	750	-750	-	-	-	-	750	-750	-	-	-	45	500	-455
Government securities	-	-	-	3000	-	3000	-	-	-	-	-	-	-	2817	-2817
Coupon Payments	722	-	722	566		566	11	-	11	289	-	289	150	-	150
CRR Interest Payments	-	-	-	-	-	-	-	-	-	2000	-	2000	-	-	-
Net Foreign Assets (variation)	-	312	-312	690	-	690	1353	-	1353	327	-	327	298	-	298
Total	1473	1662	-189	4896	41	4855	1958	1390	568	3077	200	2877	953	3489	-2536
Memo Items															
Open Market Operations (RBI)	-	1281	-1281	-	900	-900	-	652	-652	-	1483	-1483	-	228	-228
Repos by RBI	3029	3713	-684	25	1034	-1009	1500	20	1480	373	1530	-1157	421	634	-213

Note: A negative sign implies net outflow. – means nil.

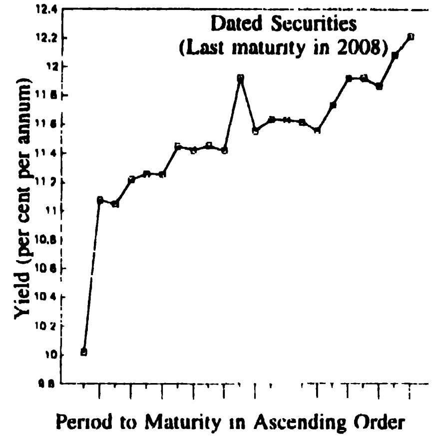
Graph C: Annualised Daily 1-Month, 3-Month and 6-Month Forward Premia in Percentage for the US Dollar by the Domestic Inter-Bank Market for January 1999



Graph D: Yield Curves for 364-Day Treasury Bills and Dated Securities: Day of Maximum Transactions (January 11) during First Half of January 1999



Graph E: Yield Curve for Dated Securities: Day of Maximum Transactions (January 27) during the Second Half of January 1999



The rise has been US $ 1.5 billion (excluding RIB proceeds) since mid-September 1998, that is, some period after the RBI measures to calm the foreign exchange market were announced in August.

III
Primary Markets

Dated Securities

After breaching the whole year's target set for its market borrowing programme in December, the central government continued to borrow relentlessly even in January as its ways and means advances from the RBI have exceeded the limit of Rs 7,000 crore set for the second half of the fiscal year. However, in order not to destabilise the interest rates, the RBI continued to take private placements of the government paper and also used the opportunity given by this route to alter the maturity profile of new floatations by issuing long-dated securities. As against three issues worth Rs 10,000 crore for 10-year maturity during 1997-98, the current year has seen as much as 14 issues for a total amount of Rs 31,209 crore or 37 per cent of the total for maturities of 10 years or over (Table 4). Likewise, private placements have dominated the issues during the current year.

In January, the papers privately placed comprised first the reissue of two earlier securities of 15- and 18-year maturities The reason for this private placement on January 18 was to meet the redemption pressure arising of the zero coupon bond maturity on the same day. The reissued papers were 12.40 per cent 2013 and 12.60 per cent 2016 for Rs 1,500 crore each which were issued earlier on tap on August 20 and November 23, respectively. Again, on January 29, the government privately placed two securities totalling Rs 5,000 crore with the RBI; this comprised two new securities – one of 11-year tenure maturing 2010 with 12.29 per cent coupon for Rs 3,000 crore and the other of 12-year tenure (2011) with a coupon of 12.32 per cent for Rs 2,000 crore.

Table 5. Auctions of 14-Day Treasury Bills

(Amount in rupees crore)

Date of Auction	Notified Amount	Bids Tendered		Bids Accepted		Subscription Devolved on RBI (Amount)	Cut-off Price (Rupees)	Cut-off Yeild Rate (Per Cent)	Amount Outstanding on the Date of Issue
		No	Face Value (Amount)	No	Face Value (Amount)				
(1)	(2)	(3)	(4)	(5)	(6)	(7)*	(8)	(9)	(10)
1998									
Jan 2	-	2	35.00	2	35.00	100 00	99.73	7 04	370.00
		(-)	(0 00)	(-)	(0.00)		[99.73]	[7 04]	
Jan 9	-	5	140 00	4	100.00	108.00	99.73	7.04	543.00
		(1)	(200 00)	(1)	(200.00)		[99.73]	[7 04]	
Jan 16	-	2	26 00	1	25.00	0 00	99 73	7.04	433 00
		(-)	(0 00)	(-)	(0 00)		[99.73]	[7.04]	
Jan 23		-	-	-	-	-	-	-	25 00
Jan 29	-	1	20 00	1	20 00	-	99 72	7 30	320 00
		(1)	(300 00)	(1)	(300.00)		[99 72]	[7 30]	
1999									
Jan 1	100.00	4	143 00	4	100.00	0.00	99.65	9.13	200.00
		(0)	(0.00)	(0)	(0.00)	(0.00)	[99.65]	[9.13]	
Jan 8	100.00	9	80 00	9	80 00	20.00	99.64	9.39	600.00
		(1)	(400 00)	(1)	(400.00)	(0 00)	[99.65]	[9.13]	
Jan 15	100 00	1	11 00	1	11.00	89 00	99.64	9.39	600.00
		(0)	(0 00)	(0)	(0.00)	(0.00)	[99.64]	[9.39]	
Jan 22	100.00	11	154 00	11	100.00	0.00	99.64	9.39	600.00
		(1)	(400.00)	(1)	(400.00)	(0.00)	[99 65]	[9.13]	
Jan 29	100.00	10	275.00	6	100.00	0.00	99.65	9.13	600.00
		(0)	(0.00)	(0)	(0.00)	(0.00)	[99.65]	[9.13]	

Figures in parentheses in cols 3 to 6 represent numbers and amounts of non-competitive bids which are not included in the total.
Figures in the square brackets under cols 8 and 9 represent weighted average price and respective yield.
* Bracketed figures in col 7, if any, relate to devolvement on primary dealers, exclusive of RBI. – No bid

Meanwhile, on January 13, Punjab raised Rs 60 crore through a 10-year paper by directly auctioning it in the market, the first of its kind amongst the states. This follows the RBI's decision to permit states to have limited 5 to 35 per cent of their market borrowings as independent access. The issue received overwhelming response. For a notified amount of Rs 60 crore, it received 29 bids for an amount of Rs 195 crore. The cut-off rate cleared by the market on this paper at the notified amount was 12.47 per cent, 3 basis points lower than the fixed rate of 12.50 per cent offered during the current fiscal by the RBI on the states' paper. The weighted average rate of the cost of borrowing funds for Punjab, however, was lower at 12.39 per cent.

Treasury Bills

The market response to TBs of varying maturities was uneven. While the market favoured the 364-day bills, the response to 14- and 91-day bills was poor. As a result, the RBI reduced the weekly notified amount for the 91-day TBs to a meagre Rs 100 crore from Rs 400 crore earlier (Tables 5 and 6) The amount was so low that doubts have arisen as to whether its yield would continue to serve as a benchmark rate in the market. 364-day bills, on the other hand, were quite popular with a large number of bids: 33 for Rs 1,834 crore and 57 for Rs 2,008 crore were received in the two auctions conducted during the month for a notified amount of Rs 750 crore each. Nevertheless, the RBI was able to maintain the cutoff yields on all the three TBs generally at the previous month's levels.

Bonds Market

Bond issues of banks were dominant in January; these were with a view to mobilising parts of their tier-II capital. In all, seven banks entered the market proposing to collectively raise about Rs 2,245 crore. Almost all the issues met with the targeted amount on the first day itself and closed soon thereafter. The rate of interest ranged between 13.85 per cent and 14.5 per cent for maturities varying between 62 months and 87 months.

The ICICI was also in the market with Safety Bonds Series VI to collect Rs 300 crore with an option to retain over-subscription of an equal amount. The multi-option bonds issue introduced a new instrument, viz. easy instalment bond. In fact, this is a variant of a regular return bond wherein an investor can pay face value of Rs 10,000 in four instalments: Rs 2,500 on application and Rs 2,500 after three, six and nine months, respectively, such that the first year carries a coupon rate of 8 per cent. Subsequently, the rate would be 15 per cent from the second to fifth year. The YTM amounts to 13.8 per cent. The other options of the issue more or less remain the same.

The ICICI was also in the private placement segment of the debt market with 61-month preference shares. The amount it proposed to raise is not known. It is offering a 10 per cent tax-free dividend payable annually. The issue is mainly targeting the retail investors which seems to have been prompted by the reduction effected by the RBI in the tax-free interest rates generally from 10 per cent to 9 per cent payable half yearly; ICICI's relief bonds fall into this category. The IFCI's 5-year and 7-year bonds in the private placement segment carrying coupon rates

TABLE 7: AUCTIONS OF 364-DAY TREASURY BILLS

(Amount in rupees crore)

Date of Auction	Notified Amount	Bids Tendered		Bids Accepted		Subscription Devolved on RBI (Amount)	Cut-off Price (Rupees)	Cut-off Yield Rate (Per Cent)	Amount Outstanding on the Date of Issue
		No	Face Value (Amount)	No	Face Value (Amount)				
1998									
Jan 14	-	2	27.00	–	–	-	–	-	17517.00
Jan 28	-	-	–	–	–	–	–	–	16882.00
1999									
Jan 13	750.00	33	1834.00	12	750 00	0.00	90 50	10.50	6519.87
						(0.00)	[90.52]	[10.47]	
Jan 27	750.00	57	2008.20	26	750.00	0.00	90.57	10.41	6634 87
						(0.00)	[90.59]	[10 39]	

– not available Figures in the square brackets represent weighted average price and the respective yield
Figures in brackets represent devolvement on Primary Dealers (PDs).

TABLE 6: AUCTIONS OF 91-DAY TREASURY BILLS

(Amount in rupees crore)

Date of Auction	Notified Amount	Bids Tendered		Bids Accepted		Subscription Devolved on RBI (Amount)	Cut-off Price (Rupees)	Cut-off Yeild Rate (Per Cent)	Amount Outstanding on the Date of Issue		
		No	Face Value (Amount)	No	Face Value (Amount)				Total	With RBI	Outside RBI
(1)	(2)	(3)	(4)	(5)	(6)	(7) *	(8)	(9)	(10)	(11)	(12)
1998											
Jan 2	200 00	3	22.00	-	-	0.00	98.23	7.21	3650.00	244.00	3406.00
		(2)	(228.57)	(2)	(200.00)		[98.23]	[7 21]			
Jan 9	200 00	2	22.00	-	-	0.00	98.23	7.21	3550.00	244.00	3306.00
		(2)	(225 00)		(200.00)		[98.23]	[7.21]			
Jan 16	200 00	5	27 50	1	0.88	0.00	98.23	7.21	3450.00	244.00	3206.00
		(2)	(250.00)	(2)	(199 12)		[98.23]	[7.21]			
Jan 23	100 00	2	1.70	2	1.70	73.30	98.20	7.33	3250.00	244.00	3006.00
		(1)	(25.00)	(1)	(25.00)		[98.21]	[7.29]			
Jan 29	100.00	-	-	-	-	75.00	98.20	7.33	3050 00	317.00	2733 00
		(1)	(25.00)	(1)	(25 00)		[98.20]	[7.33]			
1999											
Jan 1	100 00	9	190.00	5	100.00	0.00	97.67	9.54	5670.35	345 95	5324.40
		(0)	(0.00)	(0)	(0.00)	(0.00)	[97.67]	[9.54]			
Jan 8	100 00	15	230.00	8	100.00	0.00	97.68	9.50	5290 35	342.20	4948 15
		(1)	(60.00)	(1)	(60.00)	(0.00)	[97.68]	[9.50]			
Jan 15	100.00	1	5.00	1	5.00	95.00	97.68	9.50	4875 35	437.20	4438.15
		(1)	(25.00)	(1)	(25.00)	(0.00)	[97.68]	[9.50]			
Jan 22	100 00	14	264.00	9	100.00	0.00	97.69	9.46	4475.35	208.20	4267.15
		(0)	(0.00)	(0)	(0.00)	(0.00)	[97.69]	[9.46]			
Jan 29	100.00	5	180.00	5	100.00	0.00	97.67	9.54	4350.35	208.20	4142.15
		(0)	(0.00)	(0)	(0.00)	(0.00)	[97.67]	[9.54]			

Figures in parentheses in cols 3 to 6 represent numbers and amounts of non-competitive bids which are not included in the total.
Figures in the square brackets under cols 8 and 9 represent weighted average price and respective yield.
* Bracketed figures in col 7, if any, relate to devolvement on primary dealers, exclusive of RBI.

of 14 per cent and 14.25 per cent, respectively, have been over-subscribed with collection exceeding Rs 550 crore as against the proposed amount of Rs 200 crore; it had an option to retain the over-subscription. Amongst the FIs, IDBI was not in the market in January but proposes to come soon with retirement bonds with a coupon rate of 13.79 per cent for 9 years and 14.05 per cent for 10 years.

Among the NBFCs, GE Capital Services, First Leasing Company and Cholamandalam Investment and Finance Company were in the market. In an interesting move, the finance ministry has cautioned the financial institutions against subscribing to the paper floated by the GE Caps on the assurance of a comfort letter from its parent company. The ministry press release said: "FIs have been informed that this is not legally enforceable. After that, it is for them to decide". But, the FIs felt that the GE, USA, had a turnover much larger than the union budget and its comfort letter gave GE Caps India a good rating.

Among the public sector undertakings, most of the issues continued from the previous month. The Power Finance Corporation (PFC) has collected Rs 200 crore against the targeted sum of Rs 100 crore (plus over-subscription, if any) on its privately placed 10-year bond offering 13.85 per cent rate of interest. The issue is expected to announce the closure soon. Kerala State Electricity Board (KSEB) entered the market with a 10-year guaranteed paper offering a higher coupon rate of 15.25 per cent. This issue which offered an upfront incentive of 0.25 per cent has met with the targeted amount of Rs 200 crore. The other issues were from Andhra Pradesh State Electricity Board (APSEB), Tourism Finance Corporation of India (TFCI), UP Co-op Spinning Mills Federation (UPCSMF) and Punjab Urban Development Authority (PUDA) with maturities varying between 5 years and 7 years offering coupon rates of 14 per cent to 16 per cent. UPCSMF offered the highest rate of 16 per cent, whereas 14 per cent was offered by TFCI and PUDA. Amongst the manufacturing PSUs, Bharat Heavy Plates and Vessels entered the market with 3-year unsecured bond to raise Rs 50 crore issue at a yield of 14 per cent. Besides, the Gujarat State Fertilisers Corp (GSFC) successfully met with the targeted amount of Rs 33 crore on its 3-year preference shares at a coupon rate of 10.75 per cent. Meanwhile, the finance ministry was reported to have given approval to 13 public sector undertakings to raise funds for infrastructure development through bonds and other instruments.

In the private corporate sector, Deepak Fertilisers and the Tata Industries entered the market to raise about Rs 150 crore together. Deepak Fertilisers and Tata Industries were in the private placement segment with non-convertible debentures (NCD) with yields working out to be 14.76 per cent and 15.10 per cent, respectively. Interestingly, Noida Toll Bridge Company was in the market for raising Rs 50 crore each through a fully convertible debenture and a 16-year deep discount bond. The bonds have a take-out facility with IL and FS and the IDFC. They offered an attractive 13.70 per cent and 14.19 per cent yield to maturity return, respectively, in addition to tax benefits. The issue was privately placed with banks and FIs.

Securitisation

Reliance Industries securitised its receivables of the Panna-Mukta-Tapti oilfields at Rs 1,200 crore for 15 years with ICICI. ICICI has done this through a special purpose vehicle placed with a few banks, including SBI by way of a paper bearing coupon rate of 15 per cent. This is the second securitisation deal in oil for ICICI. ICICI also securitised the visa card receivables of a Chennai-based consumer durables retail chain called Vivek's Ltd for the next five years. In this novel deal, ICICI has lent Rs 5 crore to Vivek's Ltd, against its projections of visa card sales in the next five years. The deal bears 15.5 per cent interest and is repayable over five years. Citibank which is the collecting bank for Vivek's credit card bills, will through an escrow account channelise ICICI's dues from Vivek's visa card sales. Incidentally, given the expertise of ICICI in securitisation deals, the RBI has asked it to prepare a paper on how to give impetus to securitisation.

TABLE 9: REPO TRANSACTIONS IN GOVERNMENT PAPER (OTHER THAN WITH THE RBI) – JANUARY 1999

(Rupees crore)

Repo Period in Number of Days	Amount (Rupees Crore)	Range of Interest (Per Cent per annum)
A Dated Securities		
1	1440	7.35-25.00 (15 14)
2	521	8.65-16.00 (11.88)
3	1428	8.00-30.00 (9.24)
4	411	8.25-23 00 (9 96)
5	496	8.50-10.50 (9.26)
6	50	9.50-20.0 (14.75)
7	35	9 55-10.25 (9.85)
8	40	9.25-9.45 (9.38)
9	40	9 50-9 75 (9.56)
10	10	9.45 (9.45)
11	175	9 25-10 25 (9.57)
12	79	9.25-18.00 (11.98)
13	95	9.25-9.50 (13.00)
14	874	9.00-18 00 (10 79)
15	55	9 20 (9 20)
16	25	9.60 (9.60)
17	25	9.30 (9 30)
72	40	10 80 (10.80)
74	75	10.50 (10.50)
76	65	10 80 (10.80)
All Issues		
1-76	5979	7 35-30 0 (11 32)
B 364-Day TBs (All Issues)		
1-3	83	9 15-25 00 (17 63)

Figures in brackets are weighted average interest rate

TABLE 8 AUCTIONS OF FIXED-YIELD REPOS BY RBI

(Amount in rupees crore)

Date of Auction	Number of Days	Bids Tendered		Bids Accepted		Fixed Cut-off Yield Rate (Per Cent)	Estimated Amount Out-standing
		No	Face Value (Amount)	No	Face Value (Amount)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
01-Jan	4	4	286	4	286	8	343
02-Jan	4	1	30	1	30	8	316
04-Jan	3		No application received			8	316
05-Jan	3			"		8	30
06-Jan	3	1	1500	1	1500	8	1500
07-Jan	4		No application received			8	1500
08-Jan	4			"		8	1500
09-Jan	4			"		8	0
11-Jan	3			"		8	0
12-Jan	3			"		8	0
13-Jan	3			"		8	0
14-Jan	4	1	20	1	20	8	20
15-Jan	4		No application received			8	20
16-Jan	3			"		8	20
18-Jan	3	1	5	1	5	8	5
19-Jan	3		No application received			8	5
21-Jan	4	1	29	1	29	8	29
22-Jan	3	1	1000	1	1000	8	1029
23-Jan	4		No application received			8	1029
25-Jan	3	1	2000	1	2000	8	2000
27-Jan	3	1	50	1	50	8	2050
28-Jan	4	2	560	2	560	8	610
29-Jan	4	3	1103	3	1103	8	1713
30-Jan	4		No application received			8	1663
Total		17	6583	17	6583		

Appendix Table: Secondary Market Operations in Government Paper: RBI's SGL Data

(Amount in rupees crore)

Descriptions	Week ending January 1999: Yield to Maturity on Actual Trading															Total for the Month of January 1999		
	29			22			15			8			1					
	AMT	YTM	CY	AMT	YTM	CY	AMT	YTM	CY	AMT	YTM	CY	AMT	YTM	CY	AMT	YTM	CY
1 Treasury Bills																		
A 14-Day Bills	24.86	8.78		80.68	9.29		46.84	10.50		69.74	8.90		58.03	8.92		280.15	9.28	
B 91-Day Bills	442.53	8.83		429.44	7.94		265.58	9.66		461.04	9.22		586.29	9.10		2184.89	8.91	
C 364-Day Bills	70.36	9.99		168.53	7.16		182.25	10.40		360.68	10.38		22.00	10.08		803.82	9.67	
2 GOI Dated Securities																		
A Converted (Per Cent: Year)																		
12.00 1999	192.05	10.04	11.96	169.90	10.07	11.96	88.80	10.16	11.95	134.30	10.14	11.95	183.00	10.34	11.95	768.05	10.15	11.96
13.25 2000	-	-	-	25.00	10.92	12.91	-	-	-	5.00	11.06	12.92	-	-	-	30.00	10.94	12.91
11.75. 2001	205.00	11.45	11.68	115.00	11.47	11.68	20.00	11.48	11.68	150.45	11.50	11.69	155.00	11.52	11.69	645.45	11.48	11.68
12.50. 2004	145.00	11.87	12.21	103.32	11.89	12.22	193.77	11.90	12.23	340.40	11.94	12.24	38.10	11.97	12.26	820.58	11.91	12.23
Sub-total	542.05	11.06	11.92	413.22	10.97	12.00	302.57	11.36	12.11	630.15	11.44	12.05	376.10	10.99	11.88	2264.08	11.18	11.99
B Regular (Per Cent: Year)																		
5.50. 1999	-	-	-	-	-	-	-	-	-	1.90	10.47	5.58	-	-	-	1.90	10.47	5.58
13.00. 1999	-	-	-	-	-	-	20.00	10.40	12.78	30.00	10.43	12.78	-	-	-	50.00	10.42	12.78
13.40 1999	10.00	10.40	13.07	20.00	10.47	13.07	82.65	10.56	13.07	72.50	10.59	13.07	-	-	-	185.15	10.56	13.07
13.65 1999	10.00	9.45	13.64	100.00	9.42	13.62	15.00	9.97	13.62	25.00	9.73	13.61	10.00	10.03	13.61	160.00	9.56	13.62
13.70 1999	0.33	9.27	13.50	40.65	10.14	13.53	32.30	9.84	13.50	25.00	10.19	13.52	11.55	10.12	13.50	109.83	10.06	13.52
6.50. 2000	15.00	11.02	6.90	-	-	-	-	-	-	-	-	-	-	-	-	15.00	11.02	6.90
11.40. 2000	296.00	11.21	11.37	851.00	11.29	11.38	635.50	11.31	11.39	417.00	11.29	11.38	416.33	11.31	11.39	2615.83	11.29	11.38
11.64. 2000	200.00	11.20	11.57	-	-	-	155.00	11.26	11.58	90.00	11.24	11.58	65.00	11.28	11.58	510.00	11.23	11.58
12.60. 2000	5.00	10.51	12.36	15.00	10.50	12.35	25.00	10.58	12.36	15.00	10.67	12.37	-	-	-	60.00	10.58	12.36
13.85. 2000	15.00	11.25	13.27	3.00	11.35	13.29	10.00	11.30	13.27	-	-	-	-	-	-	28.00	11.28	13.27
7.50 2001	-	-	-	3.49	11.57	8.21	-	-	-	-	-	-	-	-	-	3.49	11.57	8.21
10.85 2001	5.00	11.41	10.98	-	-	-	-	-	-	-	-	-	-	-	-	5.00	11.41	10.98
11.47 2001	-	-	-	160.00	11.46	11.47	-	-	-	-	-	-	-	-	-	160.00	11.46	11.47
11.47 2001	150.00	11.45	11.47	-	-	-	-	-	-	-	-	-	-	-	-	150.00	11.45	11.47
11.55. 2001	330.00	11.42	11.52	330.00	11.46	11.52	435.00	11.49	11.54	670.70	11.49	11.54	-	-	-	1765.70	11.47	11.53
12.08 2001	50.00	11.41	11.92	15.00	11.46	11.93	-	-	-	10.00	11.49	11.93	20.00	11.50	11.93	95.00	11.44	11.92
12.70. 2001	10.00	11.92	12.53	15.00	11.40	12.41	-	-	-	5.00	11.43	12.41	25.00	11.43	12.41	55.00	11.51	12.43
13.55. 2001	10.00	11.44	12.91	-	-	-	-	-	-	0.12	11.33	12.87	-	-	-	10.12	11.44	12.91
13.75. 2001	-	-	-	-	-	-	-	-	-	15.00	11.46	13.14	-	-	-	15.00	11.46	13.14
11.00 2002	105.00	11.54	11.17	-	-	-	10.00	11.67	11.21	10.00	11.61	11.19	35.00	11.63	11.19	160.00	11.57	11.18
11.15 2002	118.30	11.61	11.30	100.00	11.64	11.31	280.46	11.64	11.31	280.00	11.64	11.32	15.00	11.65	11.32	793.76	11.64	11.31
11.68 2002	160.00	11.61	11.66	50.00	11.62	11.66	125.00	11.63	11.67	55.00	11.64	11.67	60.00	11.65	11.67	450.00	11.62	11.66
12.69. 2002	5.00	11.55	12.32	10.00	11.62	12.34	20.00	11.64	12.35	125.00	11.65	12.35	-	-	-	160.00	11.64	12.35
13.80. 2002	5.00	11.61	12.99	5.00	11.64	13.00	-	-	-	15.00	11.64	13.01	-	-	-	25.00	11.64	13.01
11.10 2003	-	-	-	-	-	-	-	-	-	7.40	11.77	11.19	-	-	-	7.40	11.77	11.19
11.75 2003	-	-	-	30.00	11.71	11.74	-	-	-	-	-	-	-	-	-	30.00	11.71	11.74
11.78. 2003	215.00	11.74	11.76	140.00	11.77	11.78	280.50	11.76	11.78	41.00	11.76	11.78	50.00	11.76	11.77	726.50	11.76	11.77
11.50. 2004	26.00	11.88	11.68	5.97	11.89	11.68	15.01	11.91	11.69	53.05	11.93	11.70	-	-	-	100.03	11.91	11.69
11.75 2004	-	-	-	-	-	-	-	-	-	5.00	11.94	11.84	-	-	-	5.00	11.94	11.84
11.95. 2004	35.00	11.90	11.93	-	-	-	80.00	11.91	11.93	65.00	11.93	11.94	15.00	11.94	11.95	195.00	11.91	11.93
11.98. 2004	215.00	11.92	11.95	10.00	11.92	11.96	55.00	11.92	11.96	47.50	11.94	11.97	32.00	11.95	11.97	359.50	11.93	11.96
12.59 2004	-	-	-	-	-	-	-	-	-	5.00	11.93	12.27	5.00	11.96	12.29	10.00	11.94	12.28
11.19 2005	5.00	12.00	11.61	-	-	-	-	-	-	-	-	-	-	-		5.00	12.00	11.61
14.00 2005	-	-	-	-	-	-	5.00	12.05	12.90	21.66	12.07	12.91	1.00	12.02	12.88	27.66	12.06	12.91
14.00. 2005 INSTAL	0.23	13.99	14.00	0.23	12.03	12.87	-	-	-	-	-	-	2.05	12.04	12.87	2.51	12.21	12.97
11.7[illegible] 2006	-	-	-	-	-	-	-	-	-	-	-	-	19.27	12.12	11.97	19.27	12.12	11.97
11.7[illegible] 2006	21.76	12.07	11.94	21.00	12.11	11.96	-	-		20.07	12.11	11.96	-	-	-	62.83	12.10	11.95
13.05. 2007	-	-	-	0.01	12.16	12.49	-	-	-	4.98	12.18	12.50	0.30	12.14	12.47	5.29	12.18	12.50
9.50 2008	0.09	12.25	11.15	0.48	12.24	11.15	-	-	-	-	-	-	0.73	12.27	11.18	1.30	12.26	11.16
12.00 2008	-	-	-	0.57	12.13	12.09	0.25	12.14	12.10	4.06	12.14	12.10	1.00	12.14	12.10	5.88	12.14	12.10
12.25. 2008	64.40	12.22	12.23	21.21	12.22	12.36	78.82	12.22	12.23	330.67	12.22	12.23	25.50	12.22	12.23	520.60	12.22	12.24
7.50 2010	-	-	-	12.65	12.32	10.57	4.10	12.32	10.57	9.50	12.33	10.58	-	-	-	26.25	12.33	10.58
Sub-total	2082.94	11.52	11.61	1960.37	11.30	11.67	2366.48	11.45	11.68	2492.79	11.55	11.79	830.43	11.45	11.63	9733.01	11.46	11.69
C Zero Coupon Bonds (Per Cent: Year)																		
1999	-	-	-	-	-	-	-	-	-	355.72	9.28	6.89	111.53	10.07	6.91	467.25	9.47	6.90
2000	55.00	10.30	7.62	223.00	10.59	7.73	12.00	11.08	8.02	73.50	10.53	7.65	20.00	10.61	7.66	383.50	10.55	7.70
2000(II)	49.20	11.06	8.05	85.00	11.16	8.07	-	-	-	92.00	11.24	8.12	30.50	11.28	8.14	256.70	11.18	8.09
2000(III)	74.00	11.05	8.22	125.00	11.15	8.25	108.32	11.10	8.18	168.72	11.24	8.30	133.00	11.29	8.32	609.04	11.18	8.26
Sub-total	178.20	10.82	7.99	433.00	10.86	7.95	120.32	11.10	8.16	689.94	10.1[illegible]	7.48	295.03	10.78	7.72	1716.49	10.58	7.74
A+B+C)*	2803.19	11.38	11.44	2806.58	11.18	11.14	2789.37	11.43	11.58	3812.88	11.28	11.05	1501.56	11.20	10.91	13713.58	11.30	11.24
D RBI's Open Market Operations (Per Cent: Year)																		
11.15. 2002	444.70	11.62	11.31	168.30	11.63	11.31	115.00	11.62	11.31	235.00	11.64	11.31	15.00	11.65	11.32	978.00	11.63	11.31
11.78. 2003	-	-	-	-	-	-	105.93	11.76	11.77	905.90	11.76	11.77	140.00	11.76	11.77	1151.83	11.76	11.77
11.98 2004	634.84	11.92	11.95	614.10	11.92	11.96	265.00	11.92	11.96	-	-	-	-	-	-	1513.94	11.92	11.96
13.05. 2007	2.60	12.17	12.49	20.60	12.17	12.49	30.06	12.17	12.49	1.02	12.17	12.49	0.25	12.18	12.49	54.53	12.17	12.49
12.25. 2008	198.53	12.22	12.23	96.60	12.22	12.23	136.37	12.22	12.23	340.91	12.22	12.23	73.10	12.22	12.23	845.51	12.22	12.23
Sub-total	1280.67	11.86	11.77	899.60	11.90	11.88	652.36	11.92	11.89	1482.83	11.84	11.81	228.35	11.90	11.89	4543.81	11.87	11.83
A+B+C+D)	4083.86	11.53	11.54	3706.18	11.36	11.32	3441.73	11.52	11.64	5295.71	11.44	11.26	1729.91	11.29	11.04	18257.39	11.45	11.39
3 REPO	1528.00			1003.50			1777.70			810.10			942.00			6061.30		
4 State Govt Securities	38.82	12.39	12.44	5.52	12.41	12.45	31.78	12.40	12.43	53.06	12.43	12.37	6.22	12.49	12.20	135.41	12.41	12.40
Grand total (1 to 4)	6188.43			5393.85			5745.89			7050.33			3344.45			27722.95		

(-) means no trading YTM = Yield to maturity in percentage per annum CY = Current yield in per cent per annum * Yield rates of these sub-groups of t-bills and dated securities have been used for the graphs. Securities with small-size transactions and inflation linked bonds have been dropped from the above list but included in the respective totals

Notes: 1) Yields are weighted yields, weighted by the amounts of each transaction

2) Current yield has not been worked out for treasury bills.

Credit-Linked Notes (CLNs)

As per a report, a new product, called credit-linked notes (CLNs), had entered the Indian financial market. CLNs are a derivative product that are securities with payments linked to a credit related event, such as, default, credit rating downgrade or a structural change in a security containing credit risk. CLNs allow the lender to separate the credit risk from the market risk or the underlying asset without touching the balance sheet or the bank's relationship with a credit. The unbundling of credit risk can also be done from other aspects of ownership such as, tax, accounting and liquidity. Under this arrangement, if a lender feels overexposed to a company or a region, he can hedge the credit risk by parcelling it out to a willing buyer through a CNL. While holding the original bond, he effectively sells the credit risk to a third party who then is liable to pay up in case of default or rating downgrade, etc. It was reported that deals were already taking place for bonds of ICICI and IDBI in overseas markets. ICICI was itself keen to deal in such products for bonds of other Indian corporates.

Other Instruments

The stability in the call/notice money markets reflected on other short-term interest rates also. The discount rates on CPs were marginally lower at 9.60-13.45 per cent range on January 31 compared to the discount rates of 9.80-13.50 per cent as on December 31. The outstanding amount of CPs also declined marginally from Rs 5,474 crore on December 31 to Rs 5,261 crore on January 31. The amount of CPs issued increased to Rs 1,215 crore and Rs 1,086 crore during the fortnights ending January 15 and January 31, respectively, from Rs 786 crore as on December 31, 1998. Data on certificates of deposits were not available beyond October 23, 1998; at that stage the outstanding CDs stood at Rs 6,214 crore against a top figure of Rs 14,584 crore as of April 10, 1998.

MMMFs

The money market mutual funds also seem to be doing reasonably well. The UTI MMMF with a collection of Rs 160 crore, quoted at an NAV of Rs 11.8970 on January 12 whereas other private sector players were quoting at an NAV ranging between Rs 8.01 and Rs 9.5.

IV
Secondary Market

Gilts

The secondary market activity remained confined to short- and medium-term papers with the prices remaining flat. The brief turbulence in the call market during January 14-17 affected the security prices for a couple of days. The prices dropped by 10-15 paise but recovered almost immediately upon call rate recovery. 11.40 per cent 2000 (Rs 2,616 crore) and 11.55 per cent 2001 securities (Rs 1,766 crore) were the most traded papers, but converted securities (Rs 2,265 crore) and zero coupon bonds (Rs 1,717 crore) enjoyed steady demand. The total turnover in dated securities at Rs 13,714 crore during the five weeks ended January 31 was somewhat higher than that in four weeks of December (Rs 8,348 crore). Interest in secondary market trading for TBs was mainly in 91-day bills. Amongst the long-dated securities, the only one to show some noticeable activity was the 12.25 per cent 2008 at an average YTP of 12.22 per cent (Rs 521 crore). Though the deals were fewer in long-dated securities, the yield curve remained steeply upward sloping (Graphs D and E), which was partly the influence of the RBI's aggressive open market operations.

Repos and OMOs

As a result of a massive monetisation of government paper including through the process of private placement, the RBI has been forced to activate its OMOs. During the five weeks ending January 31, there were OMOs worth Rs 4,544 crore. So far during April-January 1998-99, the OMOs have aggregated a massive Rs 38,928 crore – an unprecedented sum – against Rs 6,864 crore during the whole of 1997-98.

The market response to fixed-rate repo auction of the RBI was lukewarm throughout the month because of the pressure of liquidity in the market and the call rates remaining higher than the repo rate of 8 per cent. On as many as 13 days in the month the repo auctions received no application (Table 8). After receiving one bid for Rs 1,500 crore on January 6 which was paid back on January 9, no application was received for the next six days and the RBI was thus left with no outstanding amount. On four auction dates the outstanding amount had dipped to zero and another seven dates, it ranged from Rs 5 crore to Rs 30 crore. There were also considerable activities in the repo market outside the RBI (Table 9).

Bonds and other instruments

The secondary market activity in commercial instruments was considerably less during the month than in earlier months (Table 10).

TABLE 10: OPERATIONS OF NATIONAL STOCK EXCHANGE (NSE) DURING JANUARY 1999 – ACTUAL TRADED AMOUNT

(Rupees crore)

Descriptors	Week-ending January					Total during		
	29	22	15	8	1	Jan '99	Dec '98	Nov '98
1 Treasury Bills	79.55	157.77	204.36	417.25	205.00	1063.93	958.72	1510.27
i) 14-day Bills	-	-	21.14	12.00	15.75	48.89	73.40	76.81
ii) 91-day Bills	35.00	52.00	18.00	51.00	102.25	258.25	683.38	939.96
iii) 364-day Bills	44.55	105.77	165.22	354.25	87.00	756.79	201.94	493.50
iv) Repo	-	-	-	-	-	-	-	25.00
2 Dated Securities	1695.46	1820.06	1694.32	2275.34	1382.20	8867.38	5506.48	5368.35
A GOI Securities	1686.55	1817.07	1680.37	2244.54	1376.30	8804.83	5439.22	5230.69
i) Converted	92.35	369.07	160.37	516.37	238.99	1377.15	1441.72	736.44
ii) Regular	1483.00	1098.00	1252.00	1405.00	799.00	6037.00	3058.00	2921.00
iii) Zero Coupon	111.20	350.00	70.00	263.00	228.31	1022.51	723.50	1316.61
iv) Cap Indexed Bonds	-	-	-	5.17	10.00	15.17	20.00	36.64
v) GCB	-	-	-	-	-	-	-	-
vi) Repo	-	-	198.00	55.00	100.00	353.00	196.00	220.00
B State Govts Stocks	8.91	2.99	13.95	30.80	5.90	62.55	67.26	137.66
3 PSU Bonds	7.58	17.84	18.05	71.50	74.93	189.90	255.09	65.99
i) Tax free	1.23	12.00	6.00	25.00	23.00	67.23	210.72	56.87
ii) Taxable	6.35	5.84	12.05	46.50	51.93	122.67	44.37	9.12
4 Commercial Papers	42.00	70.00	95.00	47.00	60.00	314.00	477.00	710.50
5 Certificates of Deposits	-	-	-	-	-	-	55.00	9.00
6 Debentures	13.09	27.00	7.00	16.00	0.67	63.76	76.72	222.30
7 Floating Rate Bonds	317.00	-	5.00	15.00	-	337.00	9.90	25.00
8 Others*	14.15	22.23	39.00	73.00	57.00	205.38	364.61	358.09
Grand Total (volume)	2168.83	2114.90	2062.73	2915.09	1779.80	11041.35	7703.52	8269.50
Average per day								
a Government Paper (1+2)	355.00	395.57	316.45	448.77	264.53	354.69	281.10	299.07
b Others (3+4+5+6+7+8)	78.76	27.41	27.34	37.08	32.10	39.64	53.84	60.47

- No trading. GCB Government Compensation Bonds. * includes Non-SLR Institutional Bonds, SLR Institutional Bonds, Bank Bonds, Promissory Notes, Units of UTI, Company Notes and Zero Coupon PSU Bonds and others

[Statistical compilations for this note have been provided by V P Prasanth, Rafiq L Ansari and Nandini Sengupta.]

The Enron Report: Human Rights and Multinationals

A G Noorani

Nothing remotely comparable in research or analysis to the Human Rights Watch's report on the Enron Corporation has been published in India. The report deserves to be reprinted in an Indian edition.

THE report on the Enron Corporation produced by Human Rights Watch (*The Enron Corporation: Corporate Complicity in Human Rights Violations*, Human Rights Watch, 350 Fifth Avenue, 34th Floor, New York, NY 10118-3299, USA, pp 165) deserves wide readership for reasons more than one. To begin with, both the government of India and even some in the media delighted in impugning the credentials of Human Rights Watch (HRW) when it published reports on Punjab and Kashmir. Here is a report critical not only of a giant American corporation but also of the US government. It is by no means the first of its kind. Besides, granted the disparity in facilities of access and resources, nothing *remotely* comparable in research or analysis has been published in India. Research has not been a strong point with Indian civil libertarians, unlike the late S G Vaze of Pune, doyen of civil libertarians.

Lastly, the material which the report contains affects multinationals generally or transnational corporations (TNCs). HRW is concerned in the main with human rights violations, not with the wisdom of India's deal with Enron. The report notes that in recent years the energy industry has been embroiled in controversy because of its alleged involvement in situations of human rights violations throughout the world. "Some high-profile examples are Royal Dutch/Shell's operations in Nigeria; British Petroleum's development of the Cusiana-Cupiagua oil fields in Colombia; and alleged human rights violations that occurred during Total and Unocal's construction of the Yadana gas pipeline in Burma and Thailand".

Enron Power Development Corporation is a subsidiary of the Houston-based Enron Corporation, one of the world's largest energy companies. Its annual income in 1997 was more than $20 billion. Dabhol Power Corporation (DPC) is a subsidiary of the EDC. The report sets out the facts lucidly and with full documentation, from the development of the Dabhol Power Project (DPP), from 1992 to 1998. It describes Enron's dealings with the centre and two governments of Maharashtra, of the Congress(I) and the Shiv Sena-BJP. The report of the Cabinet Sub-Committee to review the DPP is set out in full. Set up on May 3, 1995 it was headed by Gopinath Munde, deputy chief minister, and consisted of three other ministers. It was signed by Munde, Sudhir Joshi, revenue minister, and Liladhar Dake, minister for industries: "The Sub-Committee, having examined the issues and having listed the deficiencies as above, is *unanimously* of the view that the arrangement in force is not tenable because of the infirmities pointed out above in the terms and conditions of the contract. It, therefore, recommends that Phase II of the project should be cancelled and Phase I should be repudiated." The project was suspended, only to be revived later.

It was in mid-1997 that the Maharashtra government announced that Enron would build what will be the largest plant in the world for generating electricity at a cost of around $3 billion. DPC is a joint venture of Enron, General Electric and the Bechtel Corporation. The Maharashtra government bought, in November 1998, 30 per cent share from Enron's 80 per cent, reducing it to 50 per cent.

Indian readers will be familiar with the protests that were voiced vigorously and the controversy that ensued, especially the charges of corruption. Those aspects deserve closer analysis and will, no doubt, be discussed in *EPW*. It is the aspect of civil liberties that worries one. We have taken for granted several antiquated statutory provisions which deserve a closer look and call for safeguards against their abuse. Suppression of protests was rough and at times brutal. The report fairly records that on one occasion there was stone-throwing by protesters and on another damage to a water pipeline. However, examining the state's response to opposition to the Dabhol Power Corporation, Human Rights Watch believes that "the state government of Maharashtra has engaged in a systematic pattern of suppression of freedom of expression and peaceful assembly coupled with arbitrary detentions, excessive use of force, and threats. In the 30 demonstrations directly researched by Human Rights Watch, and in others studied by Indian human rights monitors, there occurred only two minor unplanned incidents bordering on violence; the character of the opposition protests was peaceful. The police have also misused preventive detention laws to detain people for the peaceful expression of their views. The state has also tolerated the failure of the police to investigate or prosecute perpetrators of attacks on opponents of the Dabhol Power Project. The arrests violate the internationally recognised rights of freedom of expression, assembly, movement, protection against unjust arrest and detention, and they constitute police mistreatment. The failure to investigate or prosecute those who have attacked demonstrators represents negligent and biased behaviour by police." This is true to form in such cases.

The report is based on a six-week investigation in India, during January-February 1998 followed by investigations and interviews in New York and Washington DC. More than 1,200 pages of internal company and government documents were reviewed for the investigation. Appended to the report are the correspondence between Human Rights Watch and the Export-Import Bank of the US, the Maharashtra government's report of the Cabinet Sub-Committee to Review the Dabhol Power Project, selected conclusions and recommendations from the Indian government's Parliamentary Standing Committee on energy, and correspondence between the government of India and the World Bank concerning the economic viability of the Dabhol Power Project.

The report's discussion of the provisions of Section 144 of the Criminal Procedure Code and Section 37(1) of the Bombay Police Act, empowering the imposition of 'Prohibitory Orders', covers familiar ground. But, distance makes for better insight. The point is well taken that Section 37(1) is designed to prevent *violent* acts, not peaceful protest. The Supreme Court has construed Section 144 of the CPC and one wishes the report had analysed those rulings. The time has surely come for the court to lay down more effective safeguards against its abuse.

What is far more instructive to the Indian reader is Chapter V, on the legal obligation

of TNCs to respect human rights. In 1986 the UN Committee on TNCs developed a code of conduct for them. So did the NGOs who worked on the matter. The report says

> As a result of our research, Human Rights Watch believes that the Dabhol Power Corporation – and its parent companies Enron, General Electric and Bechtel – are complicit in human rights violations by the Maharashtra state government. Human Rights Watch does not take a position on the persistent and pervasive allegations of corruption that surround Enron's establishment in Maharashtra and its way of doing business there. But ... Enron's local entity, the Dabhol Power Corporation, benefited directly from an official policy of suppressing dissent through misuse of the law, harassment of anti-Enron protest leaders and prominent environmental activists, and police practices ranging from arbitrary to brutal.

It draws attention to Section 47 of the Bombay Police Act which enables "any person" to secure the services of "any additional number of police" on payment of the cost. Since 1994, between 10 and 300 Maharashtra police and state reserve police officers have been stationed at the DPC. It costs Rs 125 per day per officer. "These forces committed human rights violations in at least 30 demonstrations in 1997 that Human Rights Watch directly investigated...", the report says. It charges DPC with culpability for those wrongs in an entire chapter devoted to its "complicity" (Chapter VII).

Even more informative, because information on it is not easy to come by, is Chapter VIII on the 'Responsibility of Financing Institutions and of the government of the United States'. Its conclusion is that "In the case of the Dabhol Power Project, it seems that the government of the United States acted as a forceful advocate for open markets at the expense of human rights and the rule of law. Throughout the development and implementation of the Dabhol project, US government officials and various governmental agencies including the Department of Energy, Department of State, Department of Commerce, and Central Intelligence Agency consistently lobbied the Indian government heavily on behalf of the companies". The *New York Times* reported (February 18, 1995) that Frank Wisner, US ambassador to India, "constantly cajoled Indian officials". The report notes that "on every Ex-Im Bank transaction exceeding $ 10 million, the State Department is required to conduct a human rights impact assessment 'to determine if it may give rise to significant human rights concerns'. This review examines 'both the general status of human rights and the effect of the export on human rights'."

The report reproduces Wisner's testy response when HRW spoke to him on phone after his retirement. He was not aware of any human rights violations and "Why do you want to talk to me?". On October 28, 1997, very shortly after he left New Delhi, he was appointed to the Board of Directors of Enron Oil and Gas, a subsidiary of the Enron Corporation. He is affluent in his own right and did not need to stoop to this. If this is not covered by the US Ethics in Government Act, 1978, the statute should be amended to penalise such disgraceful conduct. India should have a similar law.

On the facts, there are two entire chapters on Ratnagiri district in which the suppression of protest is meticulously documented. The report should be printed in an Indian edition.

Outdated Rent Laws and Investment in Housing

Madhav Godbole

Anachronistic rent laws have been the biggest deterrent to investment in the housing sector and increasing the availability of housing. Since the political parties in power at the centre and in the states have been bent upon pursuing populist policies for the last 50 years, the battle to get a sensible law on the statute book has once again had to be taken to the Supreme Court.

IT is often said that in India fools construct houses and wise persons live in them as tenants. But the number of fools seems to be declining rapidly. The anachronistic rent legislation in a number of states has been the biggest deterrent to increasing investment in the housing sector in the country. The battle to get a sensible legislation on the statute book has, therefore, once again been taken to the Supreme Court since the political parties in power at the centre and the states have been bent on pursuing populist policies of protecting only the interests of tenants during the five decades since independence.

In its earlier order in December 1997, the Supreme Court had directed the government of Maharashtra to replace the Bombay Rent Act which had frozen rent levels at unbelievable 1940 levels with a new law that allowed reasonable increases in rent. The court had suggested that the new law be structured on the lines of the model bill on rent control circulated by the central government to the states as far back as in 1992. But, brazenly, the state government brought in an interim legislation to give a token increase in rent of just 5 per cent from April 1, 1998, making a mockery of the directive given by the highest court in the land. This amended Act is due to expire on March 31, 1999.

The low priority given to the question of revision of the Rent Act by the state government and the state legislature is evident from the fact that the bill on the subject, introduced by the then Congress government, has been before the joint select committee of the legislature since 1993. The composition of the select committee has undergone several changes since then due to the fresh elections held to the lower and upper houses of the legislature, but the bill has continued to languish and can easily qualify for mention in the Guinness Book of Records! Now, once again, there is a scramble among political parties to show their concern for tenants. The Maharashtra minister of state for housing has declared that the state government is entirely in favour of the demands of the tenants and all action will be taken by the state to foil the attempts of landlords to exploit tenants. Obviously, the need to permit reasonable returns on investment in housing as compared with returns on other competing investment opportunities is not considered as of any relevance in this discussion. It is treated as a mere battle between the rich and the poor, the haves and have-nots!

Outmoded Rent Control

It may be worth recalling the background of the rent control legislation in India as brought out by the National Commission on Urbanisation (NCU) (Interim Report, January 1987, pp 26-27). The beginning of the second world war brought a dual pressure to bear on the urban housing stock in India. The demands of the military increased the pressure on existing housing and wartime austerity and shortages prevented a sympathetic increase in supply. Purely as a temporary measure, therefore, the government introduced laws relating to the control of rent and accommodation. In their original form, these laws brought all urban properties within the purview of a rent controller who could both allot vacant premises and fix the fair rent thereof. Gradually these laws have become permanent and their focus has shifted away from allotment of vacant premises by a public authority to a freezing of rent at existing levels and the protection of the tenancy rights of the occupants. Broadly speaking, with state variations, the Rent Acts have the following provisions:

(i) control of letting and leasing of vacant buildings,
(ii) fixation of fair or standard rent,
(iii) protection of tenants from arbitrary eviction,
(iv) the obligation of owners regarding upkeep and maintenance,
(v) the rights of owners in case of misuse, non-payment of rent, etc, and
(vi) the procedure whereby owners can regain possession of premises.

The outmoded rent legislation has an adverse impact not only on investment in new housing stock but also on the maintenance, upkeep, upgradation and extension of the old stock. As emphasised by NCU, the foremost and most visible effect of the Rent Acts has been the almost universal deterioration in the condition of old buildings throughout our cities. Because rents are frozen, the owners increasingly find it difficult to keep the buildings in a state of good repair. The situation became so critical in Mumbai, for example, that the state government was forced to constitute a housing repair and reconstruction board, charge a building repair cess from every assessee of property tax and entrust the board with the task of repairing old buildings. The activities of the board have never achieved a scale where any meaningful dent could be made on the problem of deterioration of the housing stock. Stated very plainly, whilst the Rent Acts have protected the tenants in terms of the amount that they have to pay and security of tenancy, they have directly contributed to their insecurity in terms of the quality of the building in which they reside. The fact that the entire walled city of Delhi has been notified as a slum under section 3 of the Slum Area (Improvement and Removal) Act is evidence of the state to which totally controlled rents and absolute security of tenure have reduced the core of our cities.

The outmoded rent legislation has led to adoption of populist measures by the government of Maharashtra for the development and reconstruction of the cessed buildings in Mumbai. By the notification issued in January 1999, the floor space index applicable to these buildings has been relaxed beyond all reasonable limits. This decision will have serious long-term adverse implications for Mumbai and has rightly come in for widespread criticism from several quarters.

Another effect of the Rent Control Act brought out by the NCU is a very substantial reduction in residential construction for rent. All new residential development is invariably for sale, so much so that even state housing boards no longer construct any rental housing. There is also evidence of houses being kept out of the rental market even where the owner does not himself occupy the property. It is the perception of most house owners that once the house is given on rent, it will never be available to the owner. There is the emergence of the parallel economy in which there are lump sum advance payments of rent

partial payment of rent without receipts, etc. The rental market is thus highly distorted.

Most city core areas have land under extremely inefficient use. The Rent Acts are a direct contributory factor to this, because the protection extended to tenants virtually debars the reconstruction of dilapidated structures located on prime land. We have not been able to work out a strategy for urban renewal because it is almost impossible to relocate tenants. This has caused substantial distortion in land use.

Loss of Property Tax

Property tax is a major source of revenue for the municipal bodies. In states where octroi has been abolished, property tax is the most important source of revenue for the local bodies. Even in Maharashtra, where octroi is the main source of income for local bodies, property tax is the second most important source of revenue. It is important to note that there is a school of thought that advocates abolition of octroi and rationalisation of property tax structure in such a way as to make it elastic and equitable so that it can yield sufficient revenue to compensate for the loss of revenue in the event of abolition of octroi.

The NCU has noted that one of the extremely harmful effects of Rent Control laws has been the freezing of municipal revenue from property in an era of escalating prices and property values. The Supreme Court has ruled in more than one case that the rateable value of premises cannot exceed the standard rent as defined in the Rent Control Act. Because standard rents have no bearing on real rents, including the lump sum payment, the municipal revenues are denied a just share, by way of property tax, of the true value of property. The NCU had estimated, in 1987, that in the city of Mumbai alone, an additional revenue of Rs 50 crore per year would accrue from property tax if the rateable value could be delinked from the standard rent. In its response to the NCU, the Ahmedabad Municipal Corporation had estimated a doubling of its property tax receipts if such delinking could occur. This is true of almost every city in India.

The 'Delhi Fiscal Study' (December 1998) conducted by O P Mathur and T S Rangamannar of the National Institute of Public Finance and Policy, New Delhi, shows that property tax is the single most important source of income for the Delhi Municipal Corporation (MCD), as also the key instrument for financing municipal services. In 1995-96, the total income from property tax was Rs 267.1 crore, or 63 per cent of MCD's total internal resources and 46 per cent of its total revenue income. Income from property tax has, in recent years, risen at moderate rates mainly in response to measures that have been taken to simplify the tax structure and its administration. At the same time, the rate of growth of property tax income is barely representative of the phenomenal increase in property values and the expansion of Delhi's property market. The property tax system uses the annual rental value (ARV) as the basis of assessment which is hamstrung on account of, firstly, the application of the Rent Control Act and, secondly, infrequent revaluation of properties. Moreover, Delhi's property tax system is beset with an extremely narrow base – only about 30 per cent of the total number of properties are said to be assessed for taxation. It also has an obsolete exemption and rebate policy. It is estimated that MCD is able to tap only about 15-20 per cent of the potential property taxes in Delhi. The study has, *inter alia*, recommended "re-examination of using the ARV for purposes of property taxation, from the standpoint of delinking properties from the provisions of the Rent Control Act and of capturing the appreciation in property values" (pp 44-45, 65).

In his paper entitled 'Enhancing Municipal Fiscal Capability – Issues in Local Resource Mobilisation', Gangadhar Jha of the National Institute of Urban Affairs (NIUA), New Delhi, has brought out that, though a premier local tax, property tax has lost its buoyancy and elasticity over the years. A study of 142 municipal authorities with more than 100 thousand population by NIUA indicated that property tax contributed, on an average, only about 20 per cent of tax revenue. Analysis of data on revenue performance of property tax in the municipal corporations of Ahmedabad, Madras (now Chennai), Trivandrum (now Thiruvananthapuram), Bombay (now Mumbai), Calcutta an Delhi reveals that except in Delhi an Chennai, the role of property tax in th total tax revenue is declining. Decline i much more dramatic in Calcutta where declined from 94 per cent in 1984-85 t about 77 per cent in 1989-90. I Ahmedabad, it declined from 31 per cer in 1980-81 to about 29 per cent in 1989-9 In Rajasthan its share in total revenue i only to the extent of 1.9 per cent. In th state of Gujarat, it accounts for only 28.3 per cent whereas octroi constitutes abou 70 per cent of the total revenue.

According to Jha, the dormant role o property tax is due to a host of adminis trative and legal problems. "By far th biggest jolt to revenue generation has com from the legal provisions. There seem t be basically two reasons. First, the en abling provision in the municipal statute provide for 'reasonable rent' as the bas of property tax. This ambiguous an abstract expression has not been explicitl defined, with the result that the court have given its own interpretation fro time to time. Second, the prevalence o the Rent Control Laws (RCL) has led th courts to interpret the 'reasonable rent' a the fair rent or the standard rent to b determined according to the provisions o the RCL. This culminated in the Suprem Court's decision in the Diwan Daulat Ra Kapoor vs the MCD and others (AIR 198 SC 541) when the court said that th reasonable rent is only the standard ren as determinable according to the RCL The provision in the RCL has completel distorted the rental market with the resu that there does not exist a competitiv rental market to provide sufficient signa and evidence for [revision of rentals

according to market forces. It has consequently depressed the rentals which constitute the base of property tax."

The following data pertaining to the Pune Municipal Corporation (PMC) brings into focus the problems of equity and fairness created by the linkage of ARV with the standard rent arrived at under the provisions of the Rent Act. In the year 1985-86, the total number of assessed properties in PMC area was 85,896 and the total demand of general property tax was Rs 6.36 crore. In the year 1995-96, total number of properties increased to 1,63,748 and the general tax demand increased to Rs 36.28 crore. This means 82 per cent of the present demand of the general tax is borne by 50 per cent of the total property owners. Maximum burden of the property tax is borne by middle class and lower middle class flat owners living in comparatively remote places in the PMC limits, while the owners of old large properties in the heart of the city and living in posh localities are required to pay comparatively much lower taxes.

Another major drawback of the present property tax assessment is that it discourages construction of new properties. Based on the principles enunciated in the judgment of the Gujarat High Court in Ahmedabad Municipal Corporation vs Orient Fire and General Insurance Company, properties constructed after April 1, 1984 are assessed at the actual rent which is paid by the tenant if the property is led out. Total taxation is 60-70 per cent of the ARV. It means that the owner of the property, if he correctly discloses the rent he is receiving from the tenant, will be left with about 30 per cent of the income derived from the property let out by him. In addition, he will have to pay other taxes and also maintain the property. This is a big deterrent to construction of housing for being rented. As a result, an honest tax payer will either not invest his money in housing or will keep the property vacant or endeavour not to disclose the full rent received by him.

After the 74th amendment of the Constitution, the finances of municipal bodies have assumed considerable significance as substantial restructuring of these bodies is now on the anvil. The state finance commissions are expected to assess the resource requirements of these and panchayati raj bodies every five years. The Eleventh Finance Commission too has been asked to look into the ways in which the resources of these bodies can be increased. As a part of these efforts, the municipal bodies will also have to raise resources from the market. *Economic Survey 1997-98* (pp 134-35) has rightly laid emphasis on development of a market for municipal bonds. As the Survey brings out, the well developed municipal bond market in the US finances over 70 per cent of its urban infrastructure development. Municipal bonds can either be general obligation bonds where legally permitted taxes and general revenue of local authorities can be used for debt servicing or revenue bonds which rely on specified sources of revenue from facilities or services financed from bond proceeds. In either case, it will mean putting the finances of municipal bodies on a sound basis. As can be seen, an important ingredient of this will have to relate to making the property tax a buoyant and elastic source of revenue. But this will require addressing the above issues pertaining to the Rent Act and untying the Gordian knot without loss of any further time.

Housing Shortage

Reference must also be made to the growing gap between the demand and supply of housing stock for which, among other factors, Rent Act is responsible in no small measure. This has, once again, been recognised in the draft Ninth Five-Year Plan (1997-2002) released by the United Front government in March 1998. It has also underlined that this gap is unlikely to be bridged in the next five to 10 years. In terms of reach-out indicators, new housing stock required is about 9 million units in urban areas and 7.7 million units in rural areas during 1997-2002 and about 77 million and 63 million units respectively in the longer term perspective, extending up to 2021. Housing upgradation has to cover about 7.5 million units and 20 million units in urban and rural areas respectively during the Ninth Plan period. In terms of financial indicators, the investment for urban housing has been estimated at Rs 5,26,170 crore and for rural housing Rs 1,72,930 crore between 1997 and 2021 for new housing, upgradation and extension. A large part, in some cases more than one-half, will be the backlog of investment. In a shorter term perspective of 1997-2002, urban housing investment has been estimated at Rs 1,21,370 crore.

Several estimates are available of the present housing shortage and the projected shortage at a fairly disaggregated level. The National Buildings Organisation (NBO) has estimated the 1991 shortage at 8.23 million, up from 7 million in 1981, but expects the absolute shortage to decline progressively to 7.57 million units in 1997 and 6.64 million in 2001. However, other estimates indicate that the shortage will increase to 9.4 million units in 2001 (Habitat II estimate).

Successive five-year plans have recognised that housing will have to continue to be a people's activity and government intervention will have to be kept confined to meeting the housing needs of the lower sections of the housing market and selected disadvantaged groups whose needs may not be effectively or adequately met by market driven forces which will, in other cases, be a prime mover of housing development activities, particularly in the urban areas.

The key objective of the National Housing Policy (NHP) is to provide access to adequate shelter for all. Several enabling programmes are expected to achieve this objective. These include, among others, amendment to the Urban Land (Ceiling and Regulation) (ULC) Act to expand the supply of land, enactment of the model rent control and apartment ownership legislations and schemes to link up housing and income generation programmes for the poor (see Government of India, Planning Commission, *Ninth Five-Year Plan (Draft) 1997-2002*, Vol II, March 1998, pp 305, 317-329). After prevarication for several years by successive governments at the centre, the Bharatiya Janata Party-led coalition government at the centre has issued an ordinance to repeal the ULC Act on January 11, 1999. However, action on several other major points, including amendment of the rent control enactments, is still awaited.

In this connection, the recent experience of the enactment of the Delhi Rent Act, 1995, is very significant. Even after being assented to by the president of India, though over three years have elapsed, the Act has still not been notified and has continued to be a dead letter. This Act was enacted by parliament for overcoming the short comings noted in the existing Delhi Rent Act. The objectives of the new law, *inter alia*, are to increase investment in housing, particularly rental housing, and also to balance the interests of both the landlords and tenants. The provisions of the Act include exemption of certain categories of premises and tenancies from the purview of the Act, creation of tenancy to be compulsorily by written agreement, periodical increase in rent, eviction of tenants on specified grounds and limiting inheritable tenancies. After taking into consideration various representations, the government decided to amend the Act, even before it was brought into force, to make it more acceptable to all concerned and at the same time encourage increased investment in the housing sector (see *Economic Survey 1997-98*, p 148). Common Cause, a non-government organisation in Delhi, has filed a public interest litigation in the Delhi High Court against this unconscionable delay in giving effect to the law after it was passed by parliament. The decision of the court is still awaited. This is hardly the kind of example which the central government should set before the states while exhorting them to amend their rent control legislations.

The need for a rent legislation which will treat tenants and landlords in an equitable and fair manner has been repeatedly emphasised in various studies and reports such as of the Economic Administration Reforms Commission and the NCU. The observation of NCU that, "the real solution to the housing problem of our cities lies not in merely maintaining the status quo but in encouraging massive addition to the housing stock" does not need to be over emphasised. In this light, the commission had recommended that the Rent and Accommodation Acts be rationalised with the following objectives in mind:
(1) the protection of existing tenancies,
(2) the institutionalisation of a system of rental increases, as per a prescribed formula, so that whilst on the one hand, tenants continue to pay a reasonable rent, on the other it is possible for some additional money to be found for building maintenance,
(3) delinking of non-residential tenancies from the purely residential so that commercial activity begins to pay the market rent,
(4) the offering of incentives for new construction so that more and more housing comes on the market, and
(5) improving the tax base of local bodies by facilitating realistic valuation of properties.

Model Rent Control Bill

The model rent control legislation circulated by the central government to the states in July 1992 contains a number of salutary provisions which will go a long way in ushering in the long overdue reforms in this sector. In the light of the discussion in the foregoing paragraphs, it will be relevant to refer to the following forward-looking provisions in the proposed legislation on fixation and revision of standard rent:
(i) Standard rent to be fixed on the basis of 10 per cent or such percentage return as the state government may decide on total cost consisting of two components, viz, market value of land in the year of commencement of construction enhanced in the manner specified in (ii) below and cost of construction plus, where applicable, the cost of renovations or major repairs. (Even for leased premises, the value of land will be the market value at the time of commencement of construction).
(ii) The standard rent so derived is increased by a certain specified percentage to arrive at standard rent for the given year. This percentage may be higher for non-residential premises. The percentage can vary from state to state. In case of Delhi, the suggested rates of increase are 4 per cent (1950-60); 6 per cent (1960-70); and 8 per cent (1970 onwards), though the inflation rate is higher.
(iii) To this standard rent are added charges relating to maintenance and amenities and payable taxes on *pro rata* basis to derive the total amount payable by the tenant. (Where Apartment Ownership Act is applicable, the *pro rata* cost of maintenance of common facilities will be borne by the apartment owners.)
(iv) The new standard rent is to be applicable to all existing tenancies, and rents of these tenancies are to be raised gradually over a specified period according to a specified schedule, and the level of neutralisation can range from 25 to 100 per cent, in direct proportion to the size of premises with 25 per cent for premises with less than 25 square metre area and higher percentage for larger premises. To lighten the burden of incremental rent on the tenants, a longer adjustment period of five to seven years can be considered by individual states. A tenant can vacate the premises any time during the period of adjustment. Any new tenancy created during this period will bear the same rent as is specified in the adjustment schedule.
(v) Revision of standard rent initially fixed is to be made after a period of every three years on the basis of criteria notified by the state government.

The inordinate delays and dilatory court procedures in settlement of disputes pertaining to tenancy and rent matters has been another cause of serious concern. The courts are unable to cope up with the ever increasing workload of such cases. This has led to extra-judicial or parallel systems of settling such disputes through the intermediacy of criminals, thugs and mafia, particularly in metropolitan cities like Delhi and Mumbai. It is therefore imperative that a fresh look is taken at the existing institutional machinery, procedures, laws and so on. This too is sought to be addressed in the model rent control legislation. Special attention may be invited in this connection to the provisions in the draft legislation pertaining to streamlining of judicial procedures. These comprise:
(a) Enabling states to establish Rent Tribunals by a Constitutional amendment to include tenancy matters under Article 323(B) of the Constitution.
(b) Permitting pre-trial conciliation/compromise between landlord and tenant at any stage of litigation.
(c) Simplifying procedures of litigation by providing for filing of petition before Rent Controller and appeal before the Appellate Tribunal on prescribed form. This will curtail the volume of pleadings and restrict the proceedings to the real issues. The Rent Controller and the Appellate Tribunal will follow the essential procedure of a fair trial and shall lay down their own procedure. The Code of Civil Procedure shall not be applicable. The adjudication procedure will provide for final adjudication of cases within a stipulated period, say six months, without scope for either of the two parties to prolong the proceedings in any manner whatsoever.
(d) It is proposed to have judicial Rent Controllers as the first forum with original jurisdiction to handle tenancy disputes and an Appellate Tribunal to substitute for the high court. Jurisdiction of civil courts will be ousted.
(e) The Appellate Tribunal will be composed of a chairman and such members as the state government may decide. The Appellate Tribunal shall have all the powers of the high court.
(f) It is open to the state governments to extent the jurisdiction of the two-tier system to cover tenancy and other disputes in regard to properties not coming under rent control law if they can undertake to strengthen the set up suitably without affecting the main objective of speedy disposal of cases relating to controlled premises.

Price of Populism

The above analysis brings out the seriousness of the issues and their continued neglect over decades. Proliferation of slums in all towns and cities is a direct fall out of these short-sighted policies. All available evidence shows that persons belonging to even lower middle class and middle class families have to stay in slums for want of suitable rented accommodation. Instead of addressing the root cause of the problem, the government of Maharashtra, for example, has announced populist policies of providing free accommodation to all slum-dwellers. The disastrous experience of the scheme in Mumbai shows the futility of dealing with issues in this irrational manner.

Fortunately, the wheel does not need to be reinvented. The Model Rent Control Bill, evolved through intensive discussion between the centre and the states, has addressed a number of these issues. But, as in several other matters, what is lacking is the political will to act. We, as a country, have failed to make use of fora such as the National Development Council, Inter-State Council or the Chief Ministers Conferences to evolve a national consensus on such vital issues. No one can advocate the substitution of people's will through their elected representatives for decisions on these matters by judicial pronouncements. But we are left with no alternative. It is not therefore surprising that the question of evolving sensible policies on rent control has once again been taken to the Supreme Court. It is time we redefine this typically Indian version of democracy – courtaucracy – where the higher courts have to take over the responsibilities of state legislatures and the parliament.

Sweet Dreams: Andhra's *Vision 2020*

RV

The aim of Chandrababu Naidu's Vision 2020 *is to present a coherent agenda for action. A long list of objectives has been prepared and gathered together under appropriate sectoral heads covering social and economic goals. And these have now been presented for a wider debate in academia and the press, political fora and local bodies. Yet several doubts remain.*

CHANDRABABU NAIDU has done it again! Like an actor addressing a worldwide audience, he has unveiled the much-touted *Vision 2020* for Andhra Pradesh. The document was thrown open for debate at a lavish function on republic day; the fact that the chosen audience included representatives of the central government as well as of other states indicates that, as in the past, the chief minister is looking for a pat on the back from contemporaries and eventual emulation.

Much of the hype surrounding the event is however suspect. The claim that Andhra Pradesh has done something unique is itself questionable. In the past such documents were called perspective plans; today it is more fashionable to clothe them in management lingo. This is bound to be useful when the plan has to be marketed to the press and to foreign businessmen and the chief minister is likely to do this with his usual dedication and aplomb.

The avowed aim of the Vision is to prepare a coherent agenda for future action. A long list of objectives has certainly been prepared and gathered together under appropriate sectoral heads covering social and economic goals. And these have now been presented for a wider debate in academia and the press, political fora and local bodies. Yet, several doubts remain.

The Vision document looks forward to coming achievements without really stating clearly where the state is today. Data drawn on to determine targets is sketchy and unclear. All over the country, in many crucial matters, reliable data are still not available for effective policy-making in core social sectors. Figures churned out by official sources are not validated by independent sample studies. Children out of school, drop-out rates at the primary and secondary levels, population below the poverty line, nutritional deficiencies – these are some essential areas for which dependable information is still lacking. This is partly due to the distance between basic health and educational facilities in the public sector and the most needy segment of the user population; it is also due to the indifference and lethargy of the official machinery. Even such a critical human development variable as the maternal mortality rate is not regularly or accurately computed at the district and state levels anywhere in the country.

One cannot therefore help wondering about the adequacy and quality of the data collected and used by Andhra Pradesh to make its forecasts. How has information been put together and from what sources? Has it been confirmed by independent estimates? A state which has based its Vision for 2020 on the principle of transparency could easily share data with economists and social scientists to enable them to effectively participate in the consultation process. Perhaps the 14 sectoral task forces set up to draft the Vision document in the last six months have already drawn on the ideas and views of eminent academics. Even if this has been done, there is a case for releasing data on the current economic and social situation; the data could even be compiled as an appendix to the main report. Only then can independent judgments be made about the feasibility of attaining the target levels announced for the year 2020.

A major missing element in the draft paper is the analysis of regional requirements. Some assessment of the comparative strengths of three areas – Andhra, Telengana and Rayalaseema – has been made while firming up the economic strategy for the state. There is however a total absence of data and conclusions about the development levels of different regions and districts. This is anomalous in a state which has had a bloody history of agitation on the issue of regional imbalances. Whether the government is unaware of inter-district developmental inequalities or has consciously chosen to remain silent on the matter is not clear.

The adverse effect of the missing database is heightened by the absence of information regarding the methodology adopted to formulate the strategies advocated in the document. A vision for the future cannot exist in a vacuum; it must be solidly grounded in reality. Lack of a historical perspective is a major flaw of the 20-year perspective plan for Andhra Pradesh. To build a bright future, it is essential to develop a sound understanding of what was done in the last four decades in the state and correctly appreciate past initiatives which have succeeded and failed as well as the reasons for such results. The task forces might have studied these issues, but for the proposed public debate to be meaningful, their methodologies and logic should be disclosed and subjected to general examination.

The chief minister's reluctance to linger over past events is however understandable. Just as Manmohan Singh could never admit that the balance of payments crisis of 1990 was the direct result of Rajiv Gandhi's economic policies, the Andhra Pradesh chief minister will never be able to concede that the fiscal chaos in his state can be traced back to the financial adventurism of his father-in-law, N T Rama Rao. Nonetheless, if he is genuinely concerned about a workable and achievable action plan for the state, lessons learnt from past mistakes cannot be ignored nor can full debate and discussion be avoided.

The Vision document does not also give the impression of a certain coherence. True, it is built around three broad themes – social development, growth engines and governance. And yet macro connections are missing – principally the linkages between economic growth and human attainments. Some statements have been made about the importance of health and education for achieving higher income levels, but inter-sectoral convergence which is increasingly being stressed as the major factor in social development has not received adequate attention. The vital relationships between health and literacy or between water supply and sanitation on the one hand and health and nutrition on the other have not been probed or highlighted. Neither is there a wide theoretical canvas on which the future trajectory of development has been plotted.

State planning is of course not yet being done anywhere in the country through economic model building. This is due as much to paucity of data as to the fact that a very large segment of the economy still operates outside the formal monetised network. Yet a perspective plan cannot be a mere listing of sectoral plans; all objectives must fit into a broad framework of incremental investment, capital-output

ratios and the rest. And this is what has been dropped from the Andhra Pradesh vision for 2020.

A possible reason for the departure from normal planning procedures could be the McKinsey intervention. The base papers of the state-level sectoral task forces were eventually converted into the Vision document by McKinsey and Co. The McKinsey stamp is clearly discernible in the economic chapters – mainly in the techniques used to pick industries (and to a lesser extent agricultural activities) which can perform the role of growth engines in the developmental process. Evidently McKinsey is not the best choice for developing country analysis. The Andhra experience gives one the impression that the consultant has only attractively packaged official social sector targets exogenously determined by the usual target-setting techniques. McKinsey's understanding of issues in these areas appears to be limited. This is apparent in some of the 'best practices' chosen from other parts of the world to be followed by Andhra Pradesh. A possible adult literacy model for the state cited is a package used in the US, something so removed from Indian requirements as to be almost laughable!

There is one area however in which McKinsey's contribution is both undeniable and original. The consultant is on firm ground when it comes to offering advice on productive economic sectors like agriculture and especially industry. Growth engines have been picked for promotion if they satisfy three criteria – they must build on the state's strengths, they must be capable of making an impact on the economy and they must take advantage of the opportunities offered by globalisation. Using this matrix, the consultant has selected rice growing, dairy farming, poultry, horticulture, fisheries and agro-industry as growth engines in the field of agriculture and allied activities. The choice exercised in the field of industry is even more meticulous. We get the feeling that the selectors have added a fourth criterion here – the potential for creating additional low-end and semi-skilled jobs. Industries depending on minerals (like cement and granite), tourism, logistics, information technology, pharmaceuticals, leather and textiles are the preferred thrust areas for the state. This is in stark contrast to the normal practice adopted by states of targeting a very large number of industries for priority attention so that the entire purpose of the thrust area approach is defeated. The McKinsey logic and methodology is certainly worth emulating elsewhere in the country so that industrial policy is focused and effective.

McKinsey's (or the chief minister's) macro dreams do not however seem to be based on reality. A compound annual growth rate of 9.4 per cent in per capita income and sectoral rates of 5.7 per cent in agriculture, 10.9 per cent in industry and 11.7 per cent in the tertiary sector (at constant 1995-96 prices) must be predicated on appropriate ICORs and investment rates. It cannot just happen because China or Chile did it. So meagre are the data on which projections have been made that these simply stand out as one-time statements unconnected to past trends and possibilities.

Overall, the document leaves one with the feeling that the chief minister is more comfortable with economic growth than human development. The time and attention given to the productive sectors is commendable, but a better balance should have been struck between increase in domestic product and improvement in the basic health and educational status of the people. Perhaps the chief minister believes that the benefits of higher production will 'trickle down' evenly to the poorer sections in terms of higher incomes and better health and education. Or perhaps he merely sees himself as the messiah of the middle class. Even here, a glaring flaw is the complete lack of a gender perspective. Whatever the Vision envisages for Andhra Pradesh, it offers scant comfort to its women. References made in the document to their requirements and welfare are scattered and unimaginative; they reveal an indifference that is appalling, given the recent chilling disclosure about the sale of girls into prostitution. Surely, there is a better message from the government and the bureaucracy to the worse-off half of the state's population!

There may be no need to stress again the point made at the launching ceremony by the governor of Andhra and ex-governor of RBI, C Rangarajan, that visions must be matched by finance. One hopes that Andhra will succeed in tapping the required resources to transform its dreams into reality. The Vision is more likely to fail for lack of understanding of the processes of social transformation – processes that have so far kept Andhra at the bottom of the scale in all human development indicators in south India and below the average levels for the country as a whole. There are two implications for the Vision in all this:

– poor health and educational levels can act as constraints on the growth process envisaged in *Vision 2020*; and

– increase in incomes can trigger off changes which may accentuate rather than reduce social inequities.

The Vision has no strategy to meet these challenges. What Chandrababu Naidu now needs to accompany his Vision is a Human Development Report, a candid calculation of key socio-economic indices disaggregated to the district level, which looks not merely at development but also at equity and empowerment.

Struggle, Collaboration and Democracy

The 'Indian Community' in South Africa, 1860-1999

Vishnu Padayachee

The political and economic history of Indian South Africans since their arrival in Natal in 1860 has been largely shaped by struggle and resistance on the one hand and by compromise and accommodation on the other over the self-referential nature and political significance of the identities or labels 'The Indian Community' and 'Indian South Africans' by which they came to be known.

THIS brief paper sketches key features, trends and patterns in the social, political and economic history of South Africans of Indian origin – a history which unfolds over some 140 years within a complex and changing global and local context in which the 'grand' issues of race, ethnicity, nation, empire and resistance jostled for intellectual attention and space with more 'mundane' matters of day-to-day survival and unacknowledged instances of micro-level struggle and resistance. The paper focuses mainly on the rich history of the struggle against, or accommodation to, racism and domination, but it also goes on to assess tentatively the political responses of Indian South Africans to the advent of democracy in the mid-1990s, and in the period leading up to the country's second democratic elections in 1999.

I shall attempt here to argue that the political and economic history of Indian South Africans since their arrival in Natal in 1860 has been largely shaped by struggle and resistance, on the one hand, and compromise and accommodation, on the other, over the self-referential nature and political significance of the identities or labels, 'The Indian Community' and 'Indian South Africans' by which they came to be known.

At one level this community has always been complexly stratified: indentured workers, mainly Tamil and Hindi-speaking, and of Hindu faith, came between 1860 and 1911 to work Natal's sugar cane fields; internationally-connected merchants and smaller traders (or 'duka-wallahs'), who were in the main Urdu or Gujarati-speaking Muslims and Gujarati-speaking Hindus followed from about 1872; a small middle-class of clerks, teachers and nurses, predominantly Christian, developed in Natal from about the turn of the century; by the 1940s an industrialised, urbanised and semi-skilled Indian working class filled Durban's clothing, textiles, food-processing, and printing factories; by the late 1980s and 1990s, a highly mobile, and well-respected elite of businessmen, professionals, politicians and state officials had come to play an important role in the making and shaping of the new South Africa.

All these people despite differences in language-roots, religion and class, came to be legislatively defined or described themselves as part of 'The Indian Community'. Until recently, many of these different strata existed alongside one another in segregated districts in relative harmony, although social relations between some segments of this community cannot be described as ever being really 'close'.

Recent scholarship has demonstrated that South African Indian politics, until the mid-1940s, was dominated by conservative organisations such as the Natal Indian Congress (NIC), founded in 1894 by Indian merchants – with the assistance of M K Gandhi, then a young, English-trained barrister, who was brought out by a well known merchant a year earlier to represent him in a legal dispute with another Indian merchant. That politics was crucially shaped by the social and economic stratification of the Indian population and was dominated by merchants and traders who sought to maintain their relatively privileged position in the local hierarchy, in part by claiming their rights as subjects of the British Empire. "Their politics far from unifying the Indian population as has been asserted in the past, were directed specifically towards attaining white recognition of the fundamental differences between the two major social groups in the community: merchants and workers" [Swan, 1985:44].

This scholarship also demonstrates that Gandhi's political philosophy gradually evolved and distanced itself from these narrow views from about 1906 as he immersed himself in broader local struggles. Yet even the 1913 Natal Indian Strike, which forced a minor amelioration in the status of Indian South Africans, it has been argued, resulted principally from the spontaneous response of a brutally oppressed indentured workforce to their appalling working and living conditions, than to the organised efforts of Gandhi or the merchant-dominated NIC.

At another level organised political and social relations between this community and South Africans of 'other races' were complex in character. Organised political relations with the African majority simply did not exist at any level before the mid-1940s, despite the efforts of some academics and media figures to rewrite this history in romantic terms. The early NIC was determined to keep its distance from Africans. In 1936 *The Indian Opinion* argued against an alliance with Africans, who it was said were at an 'underdeveloped stage'. Thus, for example, by 1941, Indian South Africans were still being urged to maintain a separate struggle for social change. The Indian Agent-General in South Africa observed that "by making common cause with them [Africans], our community will only be disabling themselves in the very severe combat that has fallen their cause" [Desai, 1996:6].

Beginning in 1940 a new grouping, experienced in trade union and Communist Party struggles, espousing the cause of a wider 'non-European' oppressed community and pledging closer working relations both within the different segments of the Indian community and between Indians and Africans, emerged from within the ranks of the NIC. In 1945, this radical bloc ousted the conservative leadership which had failed miserably in its strategy of beseeching the Smut's government to grant Indian South Africans limited political, economic and social rights. This change in the NIC leadership led to the formation of a variety of multi-racial alliances, programmes of action and campaigns in the late 1940s and 1950s. These included the 1947 Doctor's Pact between the ANC, NIC and Transvaal Indian Congress (TIC); the 1952 Defiance Campaign against unjust and racist laws, and the 1955 Freedom Charter, which set out the basic demands of the Congress Alliance.

Despite this level of interaction at elite level, relations between Indians and Africans were still characterised by tension, as the violent 1949 Indo-African riots in Durban, in which 50 Indian and 87 African people were killed, demonstrates. These incidents were grist to the mill for the conservative Indian organisations which had managed to survive into the 1950s.

By the early 1960s the National Party government, in terms of its so-called 'separate development' policy, drew some of these latter organisations into an advisory national body, later called the South African Indian Council (SAIC). The SAIC

was set up as the "instrument which [was] to be used for promoting the development of the Indian Community on the road towards ever greater participation in the government..." [Desai, 1996:28], but within the limits of separate development. Largely illegitimate in the eyes of most Indian South Africans, the SAIC nevertheless continued to exist mainly as a vehicle to serve the interests of conservative Indian businessmen. In 1984 it became, for all intents and purposes, the equally discredited Indian Chamber of the Tri-cameral parliament.

On the other side of the political spectrum, the banning of the ANC and PAC in 1960, following the Sharpeville massacre, and the political trials, banishments and repression thereafter brought to an end what one may term 'normal political discourse' in South Africa. The liberation movement turned to armed struggle. Like thousands of others, Indian South Africans joined the ranks of the military, including MK (the ANC's armed formation) and went underground, or into exile, where some rose to prominent positions by the 1970s and 1980s.

But what was life like for most Indian South Africans by this time? In addition to racial discrimination which applied to all Black South Africans, including of course the denial of the franchise itself, an accumulating clutter of laws, decrees and regulations were directed specifically at Indian South Africans, especially in the first 100 years. These included the notorious 3 pound tax on workers who chose to remain in Natal after their indenture: a host of limitations on trading, property and residential rights; and restrictions on inter-provincial mobility within South Africa itself (only lifted in 1972!).

The Group Areas Act of 1950 which destroyed multi-ethnic and multi-racial communities and established sprawling uni-racial townships around Durban and other cities, represented one of the most notorious pieces of apartheid legislation. While some poorer Indians, who had previously lived a precarious existence as tenants of propertied Indians in crowded ghettos may have benefited from apartheid housing programmes, the psychological scars left and the financial loss suffered by the wrenching dislocations enforced under Group Areas legislation are visible among and felt by the victims and their descendants even today.

The government's post-war economic strategy, which coupled import-substitution industrialisation with racial oppression, stimulated a burst of economic growth in the 1960s and early 1970s. Although the major beneficiaries of this growth were whites, Indian South Africans were able to use their relatively better education, English language proficiency and experience in a skill-starved labour market to some good effect. Indian unemployment all but disappeared in the 1960s and 1970s; a growing number of Indians rapidly moved up the occupational structure to become doctors, lawyers, accountants, academics and engineers; many Indians joined the ranks of the racially-divided public service; and Indian entrepreneurship flourished in the narrow, racially-defined interstices of the South African economy. But the majority still remained working class and lower-middle class, albeit under marginally more secure conditions than the African majority. However, the crisis in the South African economy, which set in after c1973, began to have its greatest impact on this segment of the Indian community from the early 1980s.

But let us return to politics. After a period of dormancy and inactivity (the result in part of political harassment) the NIC was revived in 1972, at a time when the anti-apartheid resistance was re-ignited by Black Consciousness ideology. Anti-apartheid activity was also boosted by the massive worker strikes in Durban beginning in 1973, and the Soweto student uprising of 1976. A fresh, younger cadre of Indian political leadership, forged in the student politics of the then Indians-only University of Durban-Westville (UDW, which was set up under apartheid policy in 1960) and in community struggles, effectively took control of key strategic thinking and decision-making in the NIC from the mid-1970s. They led the organisation into the nation-wide student and community protests around 1980; provided the backbone of the progressive, anti-tricameral movement, the United Democratic Front (UDF), in Natal from 1983; and played a leading role in the Congress movement's underground resistance activities throughout the dark days of the 1980s.

The NIC played an important role in support of its senior alliance partner, the ANC, in the negotiations which followed the unbanning of the liberation movements in 1990. However, its strategy of remaining an exclusively-Indian ethnic organisation within the fold of the Congress movement and its style of leadership (what was referred to as the politics of the cabal) were hotly debated issues throughout the 1980s and early 1990s. Many Indian South Africans had turned their backs on ethnic-based politics and joined and rose to leadership positions in the non-racial trade union movement.

It has been argued widely that despite its long history and some limited success, the NIC largely failed in its principal objective and raison d'etre of winning support for the ANC at the first democratic elections in April 1994. Although the nature of the voting system makes it hard to know exactly how Indians voted, analyses of the 1994 election results in the overwhelmingly Indian electoral district of Chatsworth (a sprawling Indian township on the southern flank of Durban), for example, showed immense Indian support for the National Party. At the national level 64 per cent of Indians in this district voted for the Nats, and only 25 per cent for the ANC. At provincial level, 44 per cent voted for the Nats, 19 per cent for the (conservative-Indian dominated) Minority Front, and 22 per cent for the ANC. Buthelezi's Inkhata Freedom Party (IFP) received less than 5 per cent at each level [Desai, 1996:89]. Although voting patterns in middle-class 'Indian suburbs' may have been different, showing more support for the ANC, I would surmise that the ANC overall only received about 30-35 per cent of the total Indian vote.

Clearly neither the NIC nor the ANC were able totally to allay fears over cultural, religious, language, and property rights (which appeared to have been the main concerns of many Indian voters) in 1994. The ANC leadership was furious and flabbergasted by these results. The president, Nelson Mandela, made this clear soon after the 1994 elections:

> In the Indian and Coloured areas you found as much as 70 per cent of the population voted against an African government. They decided to vote to be part of a minority and not the majority, they decided to be part of a past which has divided us, created conflict, hostility, instead of being part of the future...[Desai, 1996:88].

I would argue (in the years since the election) that some of the fears that drove many Indian South Africans into the arms of the Nationalists may well have been allayed by the reconciliatory and moderate politics of the Government of National Unity (GNU). However, some new fears and vulnerabilities may well have surfaced, around issues such as affirmative action, job security, crime and, most significantly, about the quality of schooling for their children (education has for long been an important issue in the struggle for social and economic advancement among this minority community). Regrettably, these fears appear to have ignited, among poorer and more vulnerable sections of Indian South Africans, a racial intolerance which is (arguably) as strong as any which existed before in this region. There are danger signals here (as in parts of the western Cape among poorer, vulnerable

'Coloured' voters) that should not be ignored as the country moves close to the second democratic elections in 1999.

The GNU's economic policies have impacted differently on different sections of South Africa's Indian population. Thousands of working class Indian South Africans, including many women, in industries such as clothing, textiles, and auto-manufacturing had to deal with the traumatic prospects of unemployment and poverty which some have argued are in part the result of the GNU's stringent macro-economic policy and rapidly liberalising trade and industrial policy. Other Indians having secured a good education, and some economic success and capital in the apartheid decades of the 1960s and 1970s have begun to catapult themselves on to the world stage as leading players in commerce, finance, industry and the professions. Long-established Indian-owned companies such as the AM Moolla Group have taken the opportunities offered post-1994 to break out of a 'corner-shop' culture, and have successfully listed their companies on the Johannesburg Stock Exchange. Some newer entrepreneurs, like Vivian Reddy, have been involved in some mega-black empowerment deals in recent months. Local Indian businessmen have forged new links with south Asian companies, especially in Malaysia and Indonesia, and strengthened links with the Indian sub-continent. The previously Indian-owned New Republic Bank, for example, now has a majority Malaysian ownership. On the political front, many (perhaps too many in the view even of some Africanist-leaning ANC members) have secured some of the top positions in the new government and bureaucracy (potentially a problem for the ANC in the years to come).

Among the largest middle-strata of Indian South Africans (i e, excluding at the top, the most politically well connected and economically well-off, and at the bottom, the very poor and marginalised) a disproportionate amount of time, energy, and resources are devoted to strategising and planning futures outside this country, in places like Australia, New Zealand and Canada, where their skills (and those of their children) as skilled professionals and entrepreneurs are less under threat from the GNU's affirmative action programme. In this sense the response of this section of the Indian community is little different from many among the other minority communities in the same class position.

What does all this imply for the second democratic elections which constitutionally have to take place before mid-1999. While the new winners among Indian South Africans may well have already lined up firmly behind the ANC, vulnerable, unemployed and working class Indian South Africans may either be driven further back into a conservative, inward-looking, ethnic politics or (less likely) they may consider joining up more enthusiastically than they have to date with non-racial worker and community organisations. It is also possible that many Indian South Africans, both rich and poor, may decide that it is time to retreat from struggle and politics altogether.

A significant degree of apathy appears to exist among Indians (and in fact among the population as a whole) in respect of registering for the next elections. Closing dates for registration are behind us already, and it is likely that, given low registration figures, political parties may pressurise the government and the independent electoral commission to set aside further dates in January or February for registration. Political parties seeking the Indian vote (which may be crucial in some areas, such as urban districts of KwaZulu-Natal) appear to have adopted different tactics in respect of getting Indians to register. The more centre-right or conservative parties such as the Democratic Pary, the New National Party and the IFP appear to be very active in this regard, confident that the majority of Indians will not vote for the ANC. And some leading members of the NIC/ANC in Durban also recognising this, have proposed that the party should not spend too many resources on encouraging Indians to register, as they (Indians) are likely to vote for parties other than the ANC. My own view is that a large (even perhaps a majority) of Indians eligible to vote will either not register or, even if they do, will not bother to go to the polls to cast a vote. This will be the real contrast with 1994. Among those who do vote the percentage voting for the ANC may drop, but perhaps only marginally.

Let me conclude: Indian South Africans have contributed richly to the political and economic history of South Africa over the last 139 years. But their story is neither (as it is often romantically portrayed) simply one of political progressiveness in the struggle for a non-racial democracy, nor one of enviable and exemplary economic success in the face of massive racial odds. While each of these versions may contain some element of truth, neither adequately captures the complex role and history of this community of some one million people in the making of modern South Africa. For there were amongst them heroes and villains, resistance fighters and collaborators, rich and poor, winners and losers, and many who chose to sit it out on the sidelines. But then, anything else, surely, would have been highly unusual indeed.

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Resolving Hindu-Muslim Problem

An Approach

Asghar Ali Engineer

There is a tendency to oversimplify history and project current notions of conflict among Hindus and Muslim backwards into the past. There is a need to examine historical events in their richness, depth, complexity and ambiguity in order to understand the nature of the current tensions.

I

IT is banal to state that even after years of independence the Hindu-Muslim problem is as distant from a solution as it ever was. If anything, it has worsened. There are many reasons for this, and they pertain to the political, the socio-economic, as well as religious sphere. Regrettably, political processes are getting increasingly communalised in our country. Socio-economic constraints and the slow rate of development intensify rivalry between different caste and community groups. No wonder then that communal and caste problems are becoming more intractable. Both politicians and competitors for economic resources and jobs invoke religion for their respective ends. Thus, it appears as if religion is the main culprit and the whole fight is religious. In fact, this is not the case. However, since this is the general perception, and it is perception which matters, not reality, we must deal with the religious aspect as well as all the others, so as to create a spirit of co-operation between the two major religious communities of India, i e, Hindus and Muslims. We wish here to project the Islamic viewpoint on the communal conflict.

II

Islam has been greatly misunderstood, thanks to bigotry and fanaticism on both sides. It is thought to be intolerant of other religions, especially of Hinduism, and is also projected as aggressively expansionist. Sociologically and psychologically speaking, when we confront an idea or a system of ideas in a conflict situation, our view becomes prejudiced. Islam and Hinduism, on the political level, have confronted each other in conflicting situations, each trying to steal a political march over the other. Hence the political elite from both communities have developed a highly prejudiced view of each other's religion and also of each other (although there have, of course, also been instances of political collaboration between sections of the two elites). On the level of the masses, on the other hand, Sufis and folk Islam have become popular and evoked no animosity. We shall deal with this separately. First, we shall examine some of the Islamic teachings to see whether Islam encourages pluralism in matters of religion or not, so as to judge correctly its potential for peaceful co-existence with other religions. The *Qur'an* states emphatically: "For everyone of you We appointed a law and a way. And if Allah had pleased He would have made you a single people, but that He might try you in what He gave you. So vie one with another in virtuous deeds" (Q 5:48). This verse unambiguously encourages pluralism. It clearly says that "for everyone of you We appointed a law and a way", and that "if Allah had pleased He would have made you a single people", but obviously He did not, since He wanted to try humans and see whether they could live in peace despite plurality of religions and faiths. We are to live in harmony by way of excelling one another in performing good deeds. Also, the *Qur'an* repeatedly says: "To every nation We appointed acts of devotion, which they observe, so let them not dispute with thee in the matter, and call to thy Lord" (Q 22:67). Another verse says: "for every community We have ordained certain rites that they may commemorate the name of God by reading it over the cattle We have given them for sacrifice' (Q 22:34). In yet another verse the *Qur'an* repeats the theme in these words: "And everyone has a direction to which he turns [i e, everyone has a way of worshipping Him] so vie with one another in good works" (Q 2:148). Also, a Meccan sura states elaborately: "Say, O disbelievers, I do not worship that which you worship and neither do you worship that which I worship And I will not worship that which you have worshipped and neither will you worship that which I worship. Unto you your religion and unto me my religion" (Q 109). One can find more such verses in the *Qur'an* which do not approve of any compulsion in religion. "There is no compulsion in religion", the *Qur'an* unequivocally declares (2:256). It is also thought that Muslims are required by the *Qur'an* to demolish the religious places of other communities and construct mosques. The *Qur'an*. states the contrary: "And if Allah had not repelled some people by others, cloisters and churches and synagogues and mosques in which Allah's name is much remembered, would have been pulled down" (Q 22:40).

It is clear from the above verse that Allah's name is remembered, whether it is in mosque or synagogue or church, and that Allah has protected all places of worship by repelling one set of people by another, i e, those who did not protect these places were repelled by Allah through those who could do so. Thus, there is clear disapproval of non-protection, not demolition of any place of worship. Any Muslim who demolishes or justifies demolition of any place of worship is clearly acting contrary to the injunctions of the *Qur'an*. The second Caliph, Umar ibn al-Khattab, did not pray in the church of Palestine when he visited it during his sojourn in that city. When the Archbishop of Palestine inquired of the reason, the Caliph said that no pretext should be provided for Muslims who later might claim the place on the grounds of their Caliph having prayed there. Thus he took the necessary precautions in order to prevent a church being claimed by Muslims for conversion into a mosque. Both the *Qur'an* and the practice of the Prophet's Khalifa pronounce against demolishing any place of worship, whatever religion it belongs to However, it must be admitted that practice rarely conforms to the ideal. Motivated by political vendetta, some Muslims have ravaged not only some non-Muslim places of worship, but also their own holiest place of worship, the Kaba. In the early history of Islam the soldiers of the Umayyad Caliph Yazid burnt the Kaba, as it had been occupied by his political rival, Abdullah bin Zubayr. (Tabari, however, maintains that the fire was accidental.)[1] Whatever the case, it is a fact that the Kaba was surrounded by the forces of Yazid and battle was waged there.

It is also maintained by some that Islam believes in beheading all those who do not believe in Islam. This claim has been partly answered by the verses above. When there is no compulsion of any kind in matters religious, where is there room for converting a person at the point of the sword? As for the word 'kafir', it has been greatly misunderstood. It is necessary that it should be seen in its proper perspective. Kafir,

literally, means disbeliever. Anyone who disbelieves in the truth revealed by god. is 'kafir'. But it is important to note the statement of the *Qur'an* that all that was revealed before to other prophets, was also from Allah, and that Allah has sent prophets among all nations to speak in their own language. "And in or every nation", the *Qur'an* declares, "there is a messenger. So when their messenger comes, the matter is decided between them with justice, and they are not wronged" (Q 10:47). Thus, prophets are sent to every nation and the main purpose is to settle things among them with justice, so that they (i e, the people) are not wronged. Hence all those who believe in one or the other prophet and adhere to the norms of justice, are believers. The *Qur'an* not only requires belief in all prophets, but also equal respect for them without any distinction. "We make no difference between any of his messengers", says the *Qur'an* (Q 2:285). The *Qur'an* also requires that a believer should accept all god's prophets, including those of the past, sent to different nations, without making any distinction among them: "Those who believe in Allah and His messengers and desire to make a distinction between Allah and His messengers and say: we believe in some and disbelieve in others; and desire to take a course in between – These are truly disbelievers.. " (Q 4:150-51). It follows that real disbelievers ('kafirun haqqan') are those who do not accept all the messengers sent by god but discriminate between them. It is also important to note that not all the prophets have been named in the *Qur'an*. The *Qur'an* itself makes this clear: 'And (We sent) messengers WE have mentioned to thee' (Q 4:164).

In the light of this and other verses mentioned above some Sufi saints, such as 'Abdur Rahim Jan-i-Janan (1699-1781, assassinated), have concluded that god had sent prophets among the Hindus too, and likened Brahma to Adam and accepted the Vedas as revealed books. Certainly, it would not be in keeping with the true qur'anic spirit to denounce the Hindus as kafirun as has been done frequently by some sectarian Muslims. It was never the unanimous view of the 'ulama' to reject Hindus as kafirun. The Prophet himself, while concluding a treaty with the Parsis of Bahrain and Oman, accepted them as 'ahl al-kitab' (the people of the Book), although they have not been mentioned in the *Qur'an* as such. Similarly, the third caliph, Uthman ibn Affan, accepted the Berber tribes of northern Africa as 'people of the Book',[2] although it is doubtful whether they possessed any book at all. If the Berbers of northern Africa, whom Ibn Khaldun (1332-1383) describes as barbarians by most uncivilised people, could be accepted as 'ahl al-kitab, why not Hindus, inheritors as they are of a high civilisation and culture, possessing a tradition of sophisticated philosophy, metaphysical theories and physical sciences?

The Arabs in fact were highly impressed by the achievement of the Indians. The famous historian al-Mas udi (d 956/7) observed about India: In the remote past when all other nations were divided into various tribes (i e, when others were at the tribal stage) certain people of India, adorned with the qualities of nobility, rectitude, wisdom and learning were trying to bring together people under a central government. They first established a central authority and claimed to rule over others. They appointed the Great Brahman, the Supreme Leader, as their ruler. It was the age of the ascendancy of the learned. The people made progress in all the fields of life. They extracted iron from mines, made swords and other weapons, built places, studied the heavens and the stars and the movement of the sun.[3] Al-Jahiz (d 869), who was a very talented essayist during the Abbasid period, also has praise for India and its achievements. He says:

> The inhabitants of India are highly meritorious in astrology and medicine. They have a peculiar script. In medicine, too, they have a supreme insight. They have in their possession some strange secrets of the art of Aesculapius...In making busts and statues, in making pictures out of colours and in architecture they are superb...Their music also enchanting. One of their musical instruments is known as 'kanka' (?) which is played on by striking a chord strung in a gourd... There is an uncommon fund of poetical wealth and oratorial affluence in their possession. They know the arts of medicine, philosophy and ethics. The book *Kalila wa Dimna*[4] has come down from them. They have plenty of courage and common-sense and many qualities which are wanting even in the Chinese. Cleanliness is a noted feature. They have good looks, tall stature and a taste for perfumes. It is from their land that the peerless ambergris comes for the kings. Streams of higher thinking flowed down from India to Arabia.[5] [C1][C2]

Abdul Karim Shahrastani, a 12th century scholar of comparative religion, also admits that Indians are a great nation and great (religious) community (*umma kabira wa mills azima*), but they have divergent views and ideologies.[6]

Thus, we see the early Arab and non-Arab Muslim historians shower lavish praise on Indians and things Indian. They were all praise for their religion, metaphysics and ethics as well. Mahmud al-Shabistari, a scholar of the early 14th century, in his *Gulshan-i Raz* even justified idolatry. He says:

> The idol is the expression of love and unity in this world, and to wear the sacred thread is to take the resolve of service. As both faith and unfaith are founded in existence, unity of god is the essence of idol worship. As things are the essence of expression, one out of them must at least be the idol. If the Muslim knew what the idol is, then he would not go astray in his faith. The latter did not see in idol anything but external creation, and for this reason he became kafir in the eyes of the law. If thou, too, would not see that reality that is hidden in the idol, thou wilt also be not known as a Muslim according to law.[7]

As pointed our earlier, the third caliph, Uthman, accepted even North African Berbers, who were nothing more than barbarians as ahl al-kitab (people of the Book).

How could one then declare Hindus kafirun and condemn them? When Muhammad ibn Qasim (694-716, executed), confronted with Hindus, wanted to determine their religious status, the ulama have been hostile to them, often condemning them as kafirun. Why this difference of attitude? To understand this it is necessary to realise that our attitudes towards others are often determined by our interests, socio-economic or political, and the like. The early Arab historians spoke well of India and things Indian as they anticipated the benefits to be had by developing contact with them and trying to learn from them. They were at a lower level of intellectual achievement than the Hindus of India and hence praised them. However, it was different with the latter-day 'ulema'. They were patronised by central Asian Muslim nobles who were in competition with the Hindu elite. It was political hostility which assumed the form of religious hostility, and thus many ulama' came to term Hindus 'kafirun'. It is no wonder that the Sufis adopted an attitude towards the Hindus entirely different from that of the ulama: The Sufis were not aspirants to power. On the contrary, they kept away from it and concentrated on spiritual matters. They found many parallels to the spiritual endeavour in Islam in the spiritual practice of Hindu yogis. Once Nizamuddin Awliya (1238-1325), great Sufi saint of the Sultanate period, was walking with his disciple Amir Khusraw (1253-1325), along the bank of the Jamuna river. He saw some Hindu women bathing and worshipping the sun. He promptly said: *har qewm-ra dini wa qibla-gahi* (for every people there is a religion and a way of prayer). The Sufi concept of 'fana fi llah' also seems to have been derived from the Buddhist concept of 'nirvana' which predates it. It is also important to note that the Sufis did not hesitate to use the local Hindu idiom in putting across their ideas and teachings. A Sufi saint from Maharashtra, Shaykh Muhammad, named his book on Sufism

Yogasangraha. He used Marathi and Sanskrit rather than Arabic terms, for he calls 'dil' (heart) 'antahakaran', 'jalaliyant', 'tamogun' and 'them kamaliyat' 'sadgun'. In fact, he uses all those terms which were used by Patanjali, Shankaracharya (c 700 AD) and the commentators on the Vedantas.[8] Shaykh Muhammad was not alone or an exception. There were many other Sufi saints who thought like him. They were genuinely interested in spiritual practices. They knew that they varied in outward term, but not in content. They were the least prejudiced of all Muslims against the religious practices and the idiom of the Hindus. Some Sufis of Gujarat even project the Prophet as an 'avatara' of Krishna and composed poems to this effect.[9] Also, the doctrine of 'wahdat al-wujud' (literally: unity of being) was universalist on account of its pantheistic contents. The entire universe, according to this doctrine, is a creation of god and reflects his glory. Thus there is no question of fraternising with one section of humanity, since it holds similar beliefs to oneself, while rejecting the other for having different outward beliefs. The Sufi, holding to the doctrine of wahdat al-wujud, fraternised with all.

III

Today, for reasons other than religious, we are almost obsessed with our past. It is essentially political hostility which has, for reasons of legitimacy, been transformed into religious antagonism. We oversimplify history and project into it nothing but religious conflict between the Hindus and the Muslims. However, as students of human affairs, we should remember that human, and especially inter-group or inter-communal relations, are characterised by ambiguity, complexity and relativity. We do not intend to examine this question here in detail. Much has been written about it. All we wish to emphasise is that historical events must be examined in all their richness, depth, complexity and ambiguity. We should also remember, as pointed out earlier, that human behaviour is not motivated by any one factor alone, however important it may be. If this holds true with regard to ordinary human beings, not involved in any significant power struggle, then it applies all the more to the rulers and people in positions of power. Let us keep in mind how much we differ among ourselves in interpreting contemporary event. Take, for example, the Bluestar operation.[10] Did Indira Gandhi order it for her own political motives or because of her hostility towards Sikhism or, perhaps, with the aim of stirring up Hindu chauvinism and thus enhancing her chances in the elections? Had she turned communal or did she conceive of herself as the only leader capable of promoting the country's unity? People will adopt one or the other opinion depending on their political interest or involvement or a priori inclination. The debate goes on. Among Sikhs, too, there is no unanimity of opinion in this matter. When we differ so deeply on a contemporary event, how can we say anything with certainty about the remote past? And yet we state our opinion about historical events with the utmost certitude, completely ignoring the complexity and the possible range of motivation of the historical actors. These were neither religious bigots nor great liberals. They were mainly motivated by their own political interests. Let us not lose sight of these facts. If we adopt this more sophisticated view, much of our perception of history and historical events can change.

IV

A changing society throws up very complex problems, the ethnic problem being one among them. Communalism in India is a modern phenomenon in the sense that with the advent of British rule the socio-economic structure and, in consequence, the political relationship between different communities, especially between the Hindus and the Muslims, began to change. Pluralist societies undergoing change are rarely totally free from communal or ethnic tensions. The communal phenomenon suddenly came to the fore with the feudal-democratic one. This change began to deepen further when socio-economic transformation began to accelerate after independence. New forces and new relationships gradually emerged on our social and political horizons. This transformation again needs to be understood in all its complexity, richness and ambiguity, without resorting to oversimplifications. Most third world countries are experiencing, in varying degrees, ethnic or communal problem. Countries which were considered a model of unity and amity, are being torn asunder by ethnic and communal conflict. Who would have thought just a decade ago that the peaceful islands of Fiji in the Pacific would experience violent ethnic convulsions? The Fiji Indians and the natives began to fight. The conflict, to be sure, was of an economic and political nature. It broke out with the election of a Fiji-Indian supported coalition led by Timoci Bavadra. It generated resentment among the natives who felt left out in the economic and political race for power. The native Fijians asserted themselves, democracy was subverted, and the natives seized power through military dictatorship. The Tamil-Sinhala conflict in Sri Lanka, too, is a result of the changing socio-economic balance there. The Tamils were perceived by the Sinhalas to be a privileged minority. Even Buddhist monks, normally regarded as exceptionally peaceful, got involved in the anti-Tamil movement and resorted to violence. Until recently these countries had known ethnic peace but the developmental process generated conflict. The conflict always assumes communal or racial overtones. Many more examples could be given from other countries of the world. The Hindu-Muslim problem in India to which the Hindu-Sikh problem has now been added, is of the same variety. In reality, the Hindu-Muslim problem is not religious in nature. The conflict, in fact, lies in the secular area. Unfortunately, it expresses itself and is projected in a religious idiom. Whatever may be the case, we have to tackle it from the viewpoint of the perceivers and not only from that of the actors in the drama. The religious dimension, too, has various aspects to it, including the cultural.

V

Our Hindu brothers complain that the Muslims are unwilling to become part of the national mainstream. The claim is partly true and partly not. If we look at it from the point of view of the north Indian Muslim urban elite, it appears to be true. But it is not true with regard to either the north Indian rural Muslims, or to Muslims in general in southern and eastern parts of India. In fact, the centre of gravity of the communal problem lies in the Hindi belt (in which one may here include Gujarat and Maharashtra). The urban elite in this belt insists on a separate identity and has a definite sense of Indo-Islamic culture. The urban middle class Muslims of this belt are quite proud of this Indo-Islamic identity. Furthermore, since the 19th century, the religion has a history of Hindu-Muslim conflict which has been the driving force of the Aligarh movement. Above all, the region was the centre of Muslim power. In this belt, especially in its urban areas, live most of those Muslims who are descendants of the erstwhile ruling classes. The political battle for Pakistan was fought mainly by the Muslims living in the Hindi belt. It is, therefore, not surprising if the feeling of having a separate identity is more pronounced among them. Again, it is the Hindus of this belt who feel very strongly about separatist attitudes among Muslims and their refusal to be part of the Indian mainstream. However, the problem has its own complexity and ambiguity, and should not be viewed exclusively in religious terms, as frequently happens.

The roots of separatism are in politics, not in religion. Let us go back in history to search for the roots for this separatism. When emperor Akbar adopted a liberal policy towards Hindus, it created resentment among a section of Muslim nobles,

mainly those who were of central Asian origin. Subsequently, this section of Muslim nobles found their rallying point in Shaykh Ahmad Sirhindi (d 1624), a Naqshbandi Sufi theologian. In fact, it all began with the Naqshbandi, Khwaja Muhammad al-Baqi Billah (1563-1603) in Delhi.[11] Baqi Billah began contacting the Muslim nobles and, later, converted Sirhindi to his views. Sirhindi had been a liberal under the influence of Abu'l Fazl, the famous liberal Sufi intellectual in the entourage of Akbar. Sirhindi, eventually surnamed by his admirers 'mujadid-i alf-i-thani' wrote letter ('maktubat') to various Muslim nobles stressing the importance of Islamic orthodoxy, opposing the un-Islamic policies of the emperor. He found support among those nobles who did not want to share power with the Hindu nobles. The tussle continued. Aurangzeb Alamgir (ruled 1658-1707), too, courted the support of Muslim nobles in his effort to wrest power from the heir apparent Dara Shikoh (1615-1659, executed) who, again, was an outspoken liberal. The Muslim nobility sided with Aurangzeb who emerged victorious. Shah Waliullah (1703-1762) also tried to inspire the Muslim nobility of India to restore Muslim power, but he failed.

The central Asian Muslim nobility lost its original identity and developed a new Indo-Islamic one which was both Islamic and Indian. This fact must be recognised as it has much bearing on the question we are discussing. The ingredients of the identity are Islamic as well as Indian. Its islamicness asserts itself in certain circumstances and its Indianness in others, depending on the situation and the constellation of power. After the advent of the British a new phase of the struggle for power began. It was during this struggle that among the urban Muslim elite of north India which was the theatre of the struggle - the Islamic element of the Muslim elite's identity began to assert itself again. This was so because the struggle was between the Muslim and the Hindu elite. The Muslim elite, in order to mobilise the Muslim masses in their support, tried to generate a sharp sense of Islamic identity and separateness among them. There has been a strong element of Hinduism in folk Islam. The names, the traditions and customs and other cultural elements were marked by a strong Hindu influence. The Muslim elite, not for religious but for political reasons, began to urge the Muslim masses to purge their customs of local Hindu elements. The Deobandi ulama on the other hand, during the second half of the 19th century, took up this campaign for religious reasons. They thought that unless Muslims in India practised 'pure Islam', they would, inevitably fall prey to a process of degeneration.

Our main concern is not with this theological and legal stream of thought. We are more concerned here with the political aspect of it. Analysing the conspicuous increase of separatism in 19th century Bengal, Rafiuddin Ahmad says that such changes were due solely to the campaigns of islamisation. Improvements in communication that brought the rural Muslims into close contact with their urban co-religionists, wider diffusion of education, Islamic as well as western, and finally, communal tensions resulting from a variety of social and political factors, all contributed to the increasing aloofness of the ordinary Muslims from their Hindu neighbours.[12] Rafiuddin describes various changes which began to affect the nature of the emerging identity of Bengali Muslims. He observes that the earlier 'nasihat names', written as late as the 1970s of the 19th century, often referred to the Creator as 'Sri Sri Hug', 'Sri Sri Ishwar' 'Sri Sri Karim'. The increasing tendency now was to substitute such 'un-Islamic' honorifics as 'Sri Sri' by 'purer', i e, Arabic and Persian invocations such as Allahu Akbar or Allahu Chani...The style of addressing a person also showed the same trend. 'Sri, Srijuta', and 'Sril Srijuta' of an earlier year giving way generally to such Arabicised honorifics as 'janab', 'munshi' and 'maulavi'. Even the title of nasihat namas underwent rapid transformation. Bengali titles were replaced by Arabic ones, such as 'Tariqah-i-Muhammadiya', 'Akbar al-Ma rifat', 'Bedar al-Ghafilin' and so on. These changes were indicative of the psychology behind the campaigns of islamisation. They also showed how the crusade against polytheism was increasingly taking the road to cultural separatism. A similar process took place.[13] Among other Muslim communities, for example the Meos of Rajasthan and of Haryana who, also, were highly assimilated Muslim communities. Nevertheless, the political competition between Hindus and Muslims intensified during the freedom struggle, and the process of cultural separatism and islamisation reached its height at the time of partition. It was at the time of partition that the Khoja Muslims of Gujarat gave up their Hindu names and customs.[14]

It is proper to view this cultural separatism and islamisation not simply as a facet of Muslim fanaticism but rather as a sociological process which, to a great extent, resulted from the political struggles between the elites of the two communities. It was, furthermore, also the result of a heightened political consciousness. Of course, it is very difficult to say whether cultural and religious consciousness precedes political consciousness or vice versa. It surely is a highly complex process. But it is an empirically established fact that political struggle between the two communities does lead, also, to religio-cultural separatism. In this connection, Indonesia's (and, especially, Java's) example is frequently adduced. The Muslims there have been deeply influenced by the local culture which, by the time Islam arrived, had already been exposed to Hindu culture for centuries. The Javanese and, hence, to a large extent, the Indonesian cultural symbols, are Hindu. Even their national dance is based on the *Ramayana*. Their names also, in many cases, resemble Hindu names. All this is true. But in Indonesia Muslims are in the overwhelming majority and there was, or there is, no struggle between Hindus and Muslims. There is no fear of Hindu domination. The identity formation, is the crystallisation of the ingredients and a cultural one. And the sense of separateness begins with the urban elite, not with the rural masses. As the example of 19th century Bengal makes obvious, there took place a remarkable degree of cultural assimilation, perhaps as striking as that of Indonesia. But things began to change with the increase in education and the intensified struggle between the elites of the two communities. Even today, there is a heightened sense of cultural separatism, among the north Indian urban elites. This process intensifies with increasing communalisation. Even in these conditions there is quite a degree of cultural assimilation between Hindus and Muslims in the rural areas. Their dialect, mode of dressing and social customs have a lot of similarities. A good number of empirical, anthropological studies bear this out.[15]

Whatever the political compulsions or processes, cultural or religious separatism cannot go beyond certain limits. Even at the height of separatism, the identity of the Muslim elite remains, as pointed out before, an Indo-Islamic identity. The Muslims of India cannot get away from their sense of Indianness in the cultural and social sense. Their social ethic is as much Indian as Islamic. Their Muslimness cannot completely submerge their Indianness. The Islamic world also, refers to them as Indian Muslims. In the southern and north-eastern parts of India, like Tamil Nadu, Kerala, Assam, Kashmir and West Bengal (leaving aside, here, the Bihari Muslims of Calcutta), there is a remarkable degree of cultural assimilation between Hindus and Muslims, not only in rural but also in urban areas. They enjoy common social customs, share cultural values and of course, speak the same language as their Hindu co-citizens. In Kerala the marriage ceremony is called 'mangalam', and their marriage customs are matriarchal like those of the Hindus. In Kashmir, the Sufi saints are referred to as 'rishis' (e g, Nuruddin

Rishi, etc). These rishis are venerated by both Hindus and Muslims. In Kashmir another commonly venerated Sufi poetess Lalleshwari (popularly known as Lal Ded), who was a contemporary of Nuruddin Rishi (Nund Rishi). She was a Shaivite and composed poems in the popular language. Kashmiri Shaivism has a strong element of unity of god ('tawhid'). Thus, it would be seen that a sense of cultural separatism is prevalent in a small section of the urban population in north India and its importance should not be exaggerated. And, as pointed out above, this sense of cultural separatism is getting further accentuated due to the intensification of communal feelings.

Electoral processes and political opportunism have much to do with the growth of communalism all over India. If the sense of cultural separatism is to be arrested, instead of attacking it, one would do better to attack communalism and create better and more harmonious relationships between Hindus and Muslims. In trying to tackle the problem of communalism more objectively and fruitfully, two dimensions of the problem must be clearly recognised. First, we must accept the fact that with more education, a sense of one's own identity is bound to develop which would tend to separate him/her from other communities/castes. This is happening with regard to all castes and communities. It is a psychological process. Even dalits (i e, the members of the scheduled castes), due to the spread of education, are becoming highly caste conscious. This seems to be inevitable and must be accepted in the right perspective. The second dimension of the problem has to do with the deliberate attempt by the leadership or the elites of the community to serve their own interests, to build up an atmosphere of confrontation leading to a conscious striving for separatism between the communities. It is this process that we have to bring to an effective end. Confrontation must be replaced by co-operation. Polemics must be replaced by dialogue. We also have to recognise the fact that India has chosen a secular and democratic course and that ours is a pluralistic society. In the modern context democracy cannot be stabilised without secularism, and secularism cannot remain stable without genuine pluralism of both religion and culture.

To strengthen the forces of pluralism (on which secularism and democracy depend) we will have to develop a sense of equal respect for all religions and cultures. Mere tolerance is not enough. In a way, tolerance is a negative quality. It would say: "Since this or that cultural or religious group exists and cannot be undone, let us tolerate it". We must go beyond this kind of merely passive tolerance and inculcate a positive, equal respect for other religions and cultures. Respect is a positive quality. The Muslims should show as much respect for Hinduism as they have for their own religion, Islam. Similarly, Hindus should not view Islam with any sense of suspicion. Hindus do tend to become doctrinaire, although Hinduism is not so. It is the actual living we are primarily concerned with, not merely theory. Islam is, theologically speaking, no less tolerant as shown from the *Qur'anic* verses above. But Muslims are far from being tolerant in practice. Both the communities and, first of all, prominent members sincerely committed to the cause of communal peace must undertake genuine self-criticism of their respective communities. We tend to blame the other and completely ignore our own faults. This is common human behaviour and we are all its victims. Some of us, at least, must come out of this and attempt a bold self-criticism. We will also do better if we recognise that communalism *per se* is bad. It should not be divided into the artificial categories of minority and majority communalism. One feeds on the other. We have witnessed this clearly – if any proof is required – during the Shah Bano and Ram Janmabhoomi-Babri mosque agitation. Here, Muslim communalism was at its aggressive worst which in turn fed Hindu communalism. It appeared as if there was total confrontation between the two communities. Ordinary people, Hindu and Muslim, should recognise that arousing communal feelings and actions is the game of vested interests and that they themselves often become its victims. In most towns, cities and villages they live cheek by jowl and in peace. There is no confrontation among them unless it is created from above. Common people are genuinely religious and far less communal, whereas the elite and leadership are far less religious and far more communal. The Muslim intelligentsia, furthermore, has become supersensitive on religio-cultural matters. They should take into account the sensibilities of the majority community and should realise that in a pluralist society a minimum degree of tension is bound to remain between the majority and the minority communities. They should try not to over-react, as they often do, thus further exacerbating the situation. The Hindus should realise that the progress of the country is possible only when there is communal peace and a co-operative spirit between the majority and the minority. If minority feelings intensify, the integrity of the country will be endangered, much more so with heightened communal consciousness. They should show more consideration and respect for the Muslim minority's cultural-religious sensibilities – although culture is, of course, a much more complex category since it is often common between the majority and the minority, especially at regional levels. Muslims should also realise that the indigenous element in their identity content is very important and should not be de-emphasised. True genuine faith is above pettiness and cannot be seriously affected by imbibing local traditions. In fact, no Muslim community in this world is a 'pure Islamic community', for this is anthropologically speaking, a mythical category. Muslims have imbibed feudal values so deeply that they find it difficult to shake themselves free. But it will have to be done. Islam has very little in common with feudalism.

These are some tentative suggestions for developing a co-operative approach between Hindus and Muslims. It is easier said than done. But let us remember that given will and determination, nothing is impossible. After all, we are engaged in the process of nation-building. In Europe, the process was comparatively simple. Ours is a multilingual and multireligious society and industrialisation is proceeding at a slow pace and we are far from modernised. Great challenges require great determination. We should go about the task with equanimity and sincere commitment.

Notes

1 See *Tarikh Tabari*, vol 7, p 14, as quoted in Khurshid Ahmed Fariq, *Tarikh-i-Islam* (Delhi, 1978), pp 318-20.
2 See *Bayhaqi*, vol 9, p 161 and Baladhuri, *Futuh al-Buldan*, pp 232, as quoted in Khurshid Ahmed Fariq, op cit, 116.
3 See Muhammed Zaki, *Arab Accounts of India* (Delhi: Idarah-i Adabiyat-i Delhi, 1981).
4 Translation of *Panchtantra*.
5 Jahiz, *Fakhr us-Sawdan ala l-Baydan*, pp 80-81 as quoted in I C, (1932), pp 624-25. Cf Mohammed Zaki, op cit, 24.
6 Shahrastani, *Al Milal wa 'l-Nihal*, vol 111, pp 236-37.
7 Tarachand, *The Hindu Muslim Problem*, pp 34-35, quoted in B P Pande, *Islam and Indian Culture* (Patna 1987), pp 9-10
8 See Asghar Ali Engineer, 'Seminar on Sufissm and Communal Harmony – A Reportage' Occasional paper no 4, vol 4, April 1988, Institute of Islamic Studies, Bombay
9 Cf Khwaja Hasan Nizami, *Fatimi Da wat-l-Islam* (Delhi, n d).
10 This refers to the forced military occupation of the Golden Temple in Amritsar on June 9, 1984 by troops of the Indian central government by order of Indira Gandhi, then prime minister of the Indian Republic.
11 See Wilfred Cantwell Smith, *On Understanding Islam* (Delhi: Idarah-i Adabiyot-r Delhi, 1985), p 117.
12 Rafiuddin Ahmed, *The Bengal Muslims 1871-1906 – A Quest for Identity* (Delhi, 1981), p 107.
13 Cf Partap Chand Aggarwal, *Caste, Religion and Power: An Indian Case Study*, Sri Ram Centre for International Relations, New Delhi, 1971.
14 Until partition there used to be puja of Ganesh among Khoja Muslims. Then the Agha Khan began the process of Islamisation.
15 See Imtiaz Ahmad, *Caste and Social Stratification Among Muslims in India* (Delhi: Manohar, 1978).

SAP and the Rural Sector

Ravi Srivastava

Growth, Employment and Poverty: Change and Continuity in Rural India by G K Chaddha and Alakh Narain Sharma (eds); Vikas Publishing House, Delhi, 1997, on behalf of the Indian Society of Labour Economics; pp 473, Rs 475 (hardback).

AS rural India charted its course through the 1980s, large areas of persistently high poverty and worsening land distribution appeared to coexist with several comforting features: agricultural growth picked up in several stagnant regions in eastern India, there was a marked trend towards diversification of agriculture and the diversification of the rural workforce away from agriculture, real agricultural wages picked up in most areas and the incidence of poverty tended to decline. The process of structural adjustment and economic reform initiated in 1991 impacted on the rural sector both through changes in the macro-economic policy framework as well as policy changes directed at the agricultural and rural sectors. The book under review provides a detailed analysis of the elements of change and continuity in rural India based on evidence in roughly the first five years of economic reform.

Growth, Employment and Poverty is a collection of 21 contributions, including an introductory note by the editors, grouped into five main sections: (1) economic liberalisation and Indian agriculture; (2) agricultural growth and rural poverty; (3) changing non-farm scenario; (4) regional development experience; and (5) policy concerns for the poor.

Economic Liberalisation and Indian Agriculture

An evaluation of agricultural policy in India till the 1980s has to provide the cornerstone for any assessment of economic liberalisation in the agricultural sector. G S Bhalla's paper reviews agricultural policy and its impact since independence. The major positive outcomes of agricultural performance have been increased per capita availability of foodgrains (which includes increased economic access as real prices of foodgrains declined) and the spread of agricultural growth to hitherto lagging regions in the east. But at the same time, major weaknesses persisted with a large chunk of the workforce continuing to depend on agriculture.

Bhalla shows that there has been a slow-down in the agricultural growth rate in the first half of the 1990s. Though it is difficult to establish a clear relationship between economic reforms and deceleration in agricultural growth, other negative impacts of the reforms are quite discernible in this period. These include a slow-down in public investment and capital formation, and impact on fertiliser use and composition. Price reforms have included a sharp rise in foodgrain and edible oil prices to give incentive to producers and compensate against rising prices of inputs. But these led to lower offtake from the PDS. Analysing the new GATT agreement (TRIPS, TRIMS, etc), Bhalla concludes that these are likely to be harmful for the development of low cost innovations within the country suitable for small farmers. The general rationale for the new economic policies for agriculture is that they would help to remove the discrimination against the agricultural sector and allow this sector to make fuller use of the opportunities for greater agricultural trade under the new WTO regime. Though the opportunity for agricultural exports could increase, exploiting the potential would require the generation of large surpluses and large investments in infrastructure. But while large subsidies to irrigation and power have compromised the ability of state governments to undertake public investments, on the one hand, fiscal compression has also compromised the ability of the state to reverse the trend in declining public investment in agriculture.

Thus in the short and medium term, SAP may have several negative consequences for agriculture: (1) decline in public investment due to fiscal compression; (2) rising prices of foodgrains would affect the net purchasers of foodgrain; (3) the rising price of inputs would affect the small farmers negatively, since the compensating rise in output prices would benefit only those farmers with sizeable surpluses; (4) there is a likelihood of an increase in regional inequalities; (5) there would be a sharp escalation in the cost of maintaining a safety net. Benefits could accrue from economic liberalisation if and only if the country could mobilise large resources for public investment in infrastructure and research and extension.

Biplab Dasgupta's paper analyses at length the agricultural policies since 1991 as well as their consequences for agricultural growth and trade. Dasgupta concurs with Bhalla and shows that, compared to the preceding period (1985-91), agricultural growth slowed down during 1991-96. But the main reasons for this slow-down are assessed to be policy induced: a slow-down in public investment, particularly in irrigation, and a reduction in input subsidies, particularly that of potassic and phosphatic fertilisers.

Dasgupta's paper carefully analyses the prospects for expansion of agricultural exports in the post-liberalisation scenario. He shows that the share of agricultural exports continues to be low during 1991-95 and suggests that the prospects for agricultural exports were not likely to be remarkable in the future. He argues that there was no case for giving up the goal of food self-sufficiency and agricultural exports required to be given only a secondary priority. Moreover, even if static comparative advantage was in favour of agricultural exports, the country needed to develop a diversified industrial and export base, based on principles of dynamic comparative advantage

Dasgupta also compares the performance of West Bengal and Punjab agriculture. Compared to Punjab, West Bengal has followed a model of capitalist development based on land reforms and local democracy (panchayati raj). This model had unleashed rapid agricultural growth since the late 1970s while at the same time had kept polarisation under check. Dasgupta argues for the desirability of such a model in the context of the poorer regions of the country which otherwise in the liberalised scenario would be left to fend for themselves.

Agricultural Growth and Rural Poverty

The link between agricultural growth, food prices and rural poverty has been the subject matter of a number of important studies following Dharam Narain's pioneering work. Other recent studies show that there is a close relationship between agricultural and rural wages, on the one hand, and rural poverty, on the other. Or

the other hand, as Dayanath Jha and T Haque show in their paper, the link between rural unemployment rates and poverty is not so clear because of the intervening factor of returns to labour. Abhijit Sen's seminal paper establishes that, while agricultural growth and food prices continue to be important determinants of rural poverty, the growth of non-agricultural employment has exercised an important influence on the trends in rural poverty since 1973-74.

Sen argues that in the recent period, i e, the period since the 1970s when there has been an observable trend towards decline in rural poverty, there has been a substantial dissociation between agricultural performance and reduction in poverty. The intermediate and important link is provided by the changing pattern of employment and the behaviour of the labour market. He points out that during the 1980s a large chunk of the incremental employment in the rural areas has come from non-agricultural sources. This non-agricultural employment has exercised a pull on agricultural labour markets and is a major explanatory factor behind the growth in agricultural real wages. The growth in non-agricultural employment was, in turn, sustained by the large (and unsustainable) increase in government expenditure through the 1980s.

According to Sen, explanations of poverty based only on agricultural performance and relative food prices provide a poor explanation of the trends in poverty in the post-structural adjustment period. On the other hand, explanations which include non-agricultural employment and government expenditure as variables provide a much better prediction for the post-1991 poverty trends in India. While the first type of explanations provide a better rationale for a structural adjustment package based on fiscal prudence (which is said to bring down prices) and leberalisation (which is said to improve agricultural performance through improved terms of trade), they do not provide an adequate explanation for the post-reform poverty situation. The latter is primarily explained by: (1) relative increase in cereal prices; (2) decline in government expenditure resulting in a decline in the share of *non-farm* employment. Sen believes that the latter can be stepped up only if GDP increases at the rate of 8 per cent or more or if sufficient effort is made to increase the tax/GDP ratio, but the post-SAP scenario does not provide room for optimism on these fronts.

The other two papers in this section argue for regionally specific policies for agricultural growth, rural development and poverty reduction. T Haque and Dayanath Jha show that while employment elasticities in agriculture have been shown to be declining in various studies, but nonetheless since these are positive, there will be a positive impact of agricultural growth on rural employment, more so in the poorer areas of the country. But it would be a mistake to think that all of the excess labour can be absorbed in agriculture. Growth on non-agricultural employment was a must and required a growth of infrastructure in the poorer areas. G S Guha and Niti Mathur analyse the relationship between agricultural growth, non-agricultural growth, employment and poverty at the agro-climatic subregion level and find considerable variations across the subregions, calling for region-specific solutions. In some of the backward regions, agricultural incomes per capita have inched to poverty-line levels. This has become possible mainly through diversification of agriculture. In some of the sub-regions in Bihar, Madhya Pradesh, West Bengal and Orissa, the yield gap with the high productivity regions in Punjab and Haryana has partially been bridged. This has become possible because these subregions are now able to take better advantage of modern farming technologies.

Changing Non-Farm Scenario

The papers in the earlier sections establish the non-farm scenario as one of the critical factors in the observed changes in rural India in recent decades. The papers included in this section pursue various dimensions of change in the non-farm sector.

Sheila Bhalla's paper focuses on the trends and patterns in non-farm employment in rural India. Based on the pattern of employment diversification over 1961-81, she establishes three distinct patterns of non-farm employment: extremely diversified regions in the major industrial corridors; less diversified regions but with a rapid increase in farm and non-farm employment as in some of the agriculturally developed areas; and least diversified regions in the agriculturally involuted areas. The first form a continuum from the extreme north-west to the south, but also include West Bengal. On the other hand, the backward states in the centre and east still have low shares of non-agriculture in the workforce. By and large, Bhalla echoes Sen's conclusions: that in recent decades, workforce diversification has become increasingly delinked from agricultural growth, and has in turn, deeply influenced the trends in real wages and poverty. She finds the growth in workforce diversification is related to public expenditure in both investment and consumption.

Bhalla points out the results of the 1991 Census show that there is a decline in the rate of urbanisation and a fall in the share of non-agriculture in fresh employment generated. The National Sample Survey thin smaple rounds of 1991-92 and 1992-93 also reveal a retrogression in the employment structure while the 1993-94 survey reveals a partial recovery. As far as female employment is concerned, its share in non-agriculture continues to be below the 1987-88 level. Given the strong diversification in the workforce observed in the earlier two decades, these trends, combined with the falling elasticities of employment in agriculture and the organised sector are quite ominous. Overall, Bhalla concludes that with the compression in public expenditures since 1990-91 and the retrogression in the employment structure, the possible impact of SAP on employment and poverty is a cause of concern.

G K Chaddha's paper further analyses the trends in non-farm employment between 1972-73 and 1993-94 based on NSS rounds. The paper highlights the contrast in the pattern of growth up to 1987-88 and 1993-94. Between 1977-78 and 1987-88, employment for rural male workers experienced fast growth in several non-agricultural sectors including construction, storage-communication-transport, finance real-estate, mining-quarrying, and so on. Rural female workers also experienced rapid growth in employment in construction, transport-communication-storage and mining-quarrying. In their case, manufacturing also showed significant momentum. On the whole, rural workers experienced rates of growth in non-farm employment which compared quite favourably with their urban counterparts. The absorption of the incremental rural workforce in non-agriculture increased with every successive quinquennia (1972-73 to 1977-78, 1977-78 to 1982-83 and 1982-83 to 1987-88). During 1983-88, nearly four-fifths of the incremental rural male workforce was absorbed in non-agriculture while the trend was even more significant for female workers with the absolute number of rural female workers in agriculture actually going down. The position changed quite dramatically during 1987-88/1993-94. The rate of growth of non-agricultural employment more than halved for rural male workers while female workers experienced a near stagnation. The slow-down/stagnation was across the board with only "community and personal services" experiencing an increase in

employment growth rates. Urban male workers, however, experienced higher growth rates in non-agricultural employment in the latter period, and for all sectors (including agriculture) employment growth rates improved. But urban as well as rural female workers experienced an overall decline in employment growth rates, in non-agriculture as well as for all sectors taken together.

Chaddha puts forward three hypotheses to explain the above trends. First, the fiscal compression introduced as a result of structural adjustment has reduced the expansion of employment in the non-agriculture sector. Second, part of the reduced expansion may be as a result of reduced labour supply as children move to schools and out of the labour force. Third, as non-agricultural and manufacturing employment shifts out of the household sector, rural households who have poorer skills and educational skills find it more difficult to compete against their urban counterparts.

The paper by Ashok Mathur and Sadhan Chattopadhyay focuses on issues relating to rural industrialisation in the household and non-household sectors. While secondary sector employment (defined as employment in household and non-household industry and construction) was about 7 per cent of the rural workforce in 1991, rural workers formed more than two-fifths of the industrial workforce in the country. The share of the rural workforce was naturally higher in own account enterprises (70 per cent) but was also quite high (about 40 per cent) in industrial establishments. Also, the share of the rural secondary sector workforce was higher in the non-household sector compared to the industrial sector. In some states, the share of the household sector was as low as 15-16 per cent. By and large, the decadal growth rates of secondary sector employment have been associated with high shares of the non-household sector (Kerala and Himachal Pradesh being strong exceptions).

The authors find that the level of rural development is related to the level and growth of rural industrial employment. Exploring the relationship between unemployment rates (measured in terms of usual status or person days) and rural industrialisation (measured in terms of share of secondary sector employment), the authors find the relationship to be unexpectedly positive. At the same time, there was a positive relationship between pressure on arable land and unemployment, indirectly confirming the 'residual sector hypothesis'. However, changes in usual status employment are correlated with the share of secondary sector employment showing that over time high levels of rural industrialisation may help to reduce unemployment. Further, the rates of growth of secondary sector employment are negatively (though not significantly) related to the levels of unemployment. This relationship emerges because of the influence of growth in non-household sector on unemployment.

The authors also explore the relationship of 1987-88 poverty levels to land per capita, industrialisation, rural development and agricultural growth. The relationship which emerges is in the expected direction but is neither strong nor significant.

Two conclusions are highlighted: the need to provide rural industries with specific forms of assistance to overcome inherent handicaps, and the need to strengthen rural infrastructure and development.

Two papers by S P Kashyap, and Sharma and Jacob stress the relationship between agricultural growth and non-farm diversification. The paper by S P Kashyap is based on a study of Kheda district, where 7 of 10 talukas are in the command of a large irrigation system. Kashyap shows that there was a strong relationship between irrigation-based agricultural growth and non-farm diversification. R K Sharma and Babu Jacob analyse livestock growth and employment. The livestock sector contributes about one-fifth of total agricultural sector output. Its contribution to employment is only a little lower than the manufacturing sector but higher than the services sector. The pattern and growth of the livestock sector and the constraints on demand and supply are analysed by the sector. They also show that the positive relationship between the crop and the livestock sectors (particularly dairy) strengthens the negative relationship between agricultural growth and poverty.

Regional Development Experiences

This section offers rich material on the recent experiences in agricultural growth, rural development and poverty reduction at the state level. The experience of five states (Punjab, Maharashtra, Uttar Pradesh, Bihar and Rajasthan), which are quite disparate in terms of their record of agricultural growth and poverty reduction, have been analysed.

With its record of agricultural growth, Punjab appears to be well placed to take advantage of the opportunities created by agricultural liberalisation. But Sucha Singh Gill's paper does not lend support to this view. Gill finds that the gains of agricultural growth in Punjab were shared widely across regions and groups and real wages of labourers increased quite rapidly in the early decades of the green revolution. Non-agricultural growth and diversification was also mainly a result of the rapid agricultural growth in this period. However, Gill is not sanguine about the prospects of agricultural and employment growth and poverty reduction in the post structural adjustment period. He cites evidence of the exit of small cultivators from agriculture in the face of rising input prices and declining returns from agriculture. Overall, he does not find the prospects of Punjab agriculture being able to compete successfully in the international markets very promising. Thus, he does not rule out some reversals in Punjab's remarkable record in poverty reduction.

In the case of Uttar Pradesh, A K Singh shows that rapid agricultural growth occurred in all regions of the state since the late 1960s. The eastern region, in particular, experienced rapid agricultural growth. This growth occurred alongside expansion of credit, irrigation and fertiliser and improvement in agricultural terms of trade. In the post-reform period, rise in input prices had led to worsening terms of trade. The use of fertiliser fell and its composition became more unbalanced. These factors, combined with a slowing down of public investment in agriculture mainly contributed to a slow-down in agricultural growth. Taken together with rise in the cost of living due to rising foodgrain prices, these had resulted in an increase in poverty in the immediate post reform period.

The impact of recent changes hold special interest for Bihar, a state which has the lowest per capita income and a very high incidence of poverty. Alok Kumar and Alakh Narain Sharma show that during the 1980s, agricultural growth increased somewhat and there was also a decline in poverty. Real wages increased during this period but this increase is not entirely explained by rising labour productivity. GDP originating in agriculture grew at the rate of 2.34 per cent per annum during the 1980s, nearly twice the rate achieved during the 1970s. Foodgrain production, which was virtually stagnant in the earlier decade grew at a still higher rate. The growth in production was almost across all major crops, and resulted from an increase in use of fertiliser and HYV and increasing area under irrigation. Fertiliser consumption nearly trebled, helped by low prices and increase in irrigation. Compared to the rest of the country, the workforce did not show

any significant change between 1972-73 *and 1987-88*. The employment pattern in 1987-88 was overshadowed by adverse *agricultural conditions leading to decline* in agricultural production and a slow-down in several other sectors, including mining, manufacturing and electricity, with only the construction sector showing rapid growth rate. Female employment bore the brunt of the conditions in 1987-88 with an absolute decline in agricultural employment even as the share of female employment in agriculture fell.

While declining poverty in the 1980s could be traced to higher agricultural growth and rise in real wages, government intervention through employment generation and the PDS also seemed to have played a role, particularly during 1987-88. But in the post-reform period, the declining trend in poverty seems to have been halted due to rising prices, cut-back in employment generation programmes, particularly in 1991-92 and 1992-93, and slow-down in agricultural growth. GDP originating in agriculture has declined in real terms between 1990-91 and 1994-95. While employment growth overall seems to be unaffected, this has occurred mainly due to employment growth in agriculture while growth in mining, manufacture and construction has declined. This again pinpoints the criticality of agriculture which seems to be acting as a residual sector in this period. The share of public investment in irrigation (as percentage of plan expenditure) has steadily declined and the tempo of irrigation expansion during the 1980s was maintained mainly due to private investment in tubewell irrigation. In the post-reform period, fertiliser consumption increase has slowed down and price increase seems to be one of the factors. Further, the composition of the fertiliser nutrients has further deteriorated. In the area of electricity and irrigation charges, present low charges appear to be unsustainable and there is a case for charging at least operating costs. Credit flow to agriculture has also declined in the post-reform period. As regards the potential for agricultural exports, the major potential in Bihar lies in the export of fruits and vegetables, but this requires the development of proper infrastructure.

S Mahendra Dev and Ajit K Ranade's paper underscores the wide disparities between regions and between the industrial and agricultural sectors in Maharashtra. Twelve districts, accounting for 60 per cent of net sown area, are drought prone. In contrast to the eastern states agricultural growth rates declined in Maharashtra during the 1980s. Female employment in the non-farm employment, *high in* Maharashtra by national standards, *declined during the 1980s*. SAP could *affect the poor negatively due to increased* prices and lower public expenditure. The authors argue that the deregulation of trade, especially of monopoly procurement of cotton would be beneficial to agriculture in the state. At the same time, while reduction in fertiliser and electricity subsidies would hurt small cultivators, public investment in irrigation required to be stepped up, the effectiveness of employment safety nets needed to be improved and increased emphasis needed to be given to horticultural growth.

As in case of the other states, Vidya Sagar finds a strong relationship between agricultural growth and poverty reduction in Rajasthan. Rajasthan's record of agricultural growth in the 1980s has been led by a rapid increase in oilseeds production and a corresponding decline in the area under coarse grains. This rapid increase has been made possible by various elements of state intervention which include changes in the composition of edible oil and improved support price for oil seeds.

However, unlike the other states covered in the book, Vidya Sagar finds that the early evidence in the post-reform period suggests that Rajasthan has been able to maintain its tempo of public investment in agriculture, increasing use of fertiliser and consequent agricultural growth. The state plan outlay on agriculture and rural development is reported to be quite high. The diversification of the agricultural economy has been facilitated by the expansion of the RPDS. As a result of these factors, the declining trend in poverty reduction appears to have been sustained. But future prospects would depend primarily on the prospects of the oilseeds economy which enjoys a high level of subsidy.

Policy Concerns for the Poor

The final section in the book focuses on the direct strategies to alleviate the conditions of the poor, as well as the development of appropriate and alternative institutions and organisations which could lead to pro-poor development in the post-SAP period.

G Parthasarthy and C S Murthy analyse the experience of West Bengal and Kerala, both states with limited land reforms, to show that even limited amounts of land reform could have a favourable impact on poverty and human development. This is possibly also because land reforms based on mass moblisation may lead to a shifting in the balance of power in the countryside. In the poor states, majority of tenants are small/marginal cultivators, in contrast to the situation prevailing in most of the non-poor states. The authors conclude that the *development strategy pursued in the non-poor* states cannot be undertaken in the poor states without high environmental and other costs.

What will be the role of common property resources (CPRs) and collective action in the post-structural adjustment period? Gopal Kadekodi, in his paper, maintains that while structural adjustment programmes aim at improving welfare and efficiency through reduced transaction and search or information costs mostly in relation to private goods, collective action strategies aim at reduction of bargaining and monitoring and enforcement costs mostly in relation to public goods, open access or common property resources with subtractive individual gains. There is a considerable area of interaction between the two types of programmes and SAP may well have negative consequences for common property or the environment. Hence, the need to design development alternatives with collective participation. The Chakriya Vikas Pranali in Palamau is used to illustrate one such design.

Nirmal Sen Gupta's paper also deals at length with the role and development of common property resources in development and in the livelihoods of the poor. In the recent past, a number of new initiatives have come about which aim at the rejuvenation of the CPR. These are based on people's participation and many (not all) embody traditional knowledge and rules. Sengupta does not find management of the CPRs antithetical to the market: many of the CPRs use to the market to promote sustainable livelihoods. But according to him, the SAP represents a more predatory trend towards CPRs in which overexploitation of CPRs and natural resources results from policy which systematically undervalues renewable natural resources. International agencies and development encompass both trajectories of development – one which has a more sympathetic view of CPR regeneration, and the other which is predatory. An effort has to be made to rate India's abundant resources of renewable natural resources, biodiversity and indigenous knowledge and to chalk out an alternative course of development using these resources. Policy regimes which encourage sustainable development based on these resources have to be carefully identified. Some of the possible incentives and disincentives will be price-based.

In the same vein, M V Nadkarni in his paper puts forward the plea that the

approach of giving the poor productive assets and purchasing power needs to be significantly complemented by an approach to strengthen the common property resources base of the rural areas to provide effective social safety net for the poor, and that social forestry could be an important means for achieving this. But appropriate decision-making and institutions were necessary to ensure that the fuel, fodder, mulch and small timber needs of the poor were met from social forestry initiatives.

In her analysis of social security for the rural poor, Indira Hirway finds that SAP was likely to hurt the poor in the short run, while its medium- and long-term impact depended on whether economic growth could be broad-based and labour-intensive enough to promote the growth of poor agricultural areas and non-farm development which could facilitate the participation of the landless and land-poor households. This would require massive investments in infrastructure and the development of appropriate institutions – in credit, marketing, etc, and also institutions which could promote participative and decentralised decision-making. Hirway analyses the concept of social security and the various social security measures which are in practice. She finds these piecemeal and dissociated from the macro-economic framework. Hirway argues for a comprehensive package whose effectiveness would ultimately lie in the degree to which the panchayati raj institutions and the various organisations of the poor are associated with the design and implementation.

Conclusion

The new course which the Indian economy has taken since 1991 has significant implications for its rural sector and for the vast numbers of people directly dependent for livelihood on this sector. More than seven years down the road from 1991, the existing evidence and the analysis on the impact of SAP and economic reforms is still sketchy. The collection of papers by the Indian Society of Labour Economics cogently addresses a vast set of issues based on evidence from the first few years of reform: ranging from the impact of macro-policies on the agriculture and the rural sector, to impacts at the state level, and the need to develop complementary as well as alternative strategies and institutions based on collective action and sustainable development. The book forms a useful compendium for analysts and practitioners of development.

Of Grains and Greens

Rajeswari S Raina

Against the Grain – Agri-environmental Reform in the United States and the European Union by Clive Potter; CAB International, Wallingford, 1998; pp xi+194.

LITERATURE in the interdisciplinary area of agri-environmental studies can be grouped into two. To make the classification more striking, we can also devote two criteria to this classification. The first, is the reference list. To simplify it without resorting to exaggeration, it reads like a who's who in economics/agricultural or ecological economics, or like a who's who in an eclectic club of environmental history, postmodern green philosophy, radical political economy, aesthetics, development sociology/anthropology. The two groups also fastidiously maintain their distinct language and writing styles. The second criterion is the philosophy that informs the analysis of agri-environmental problems in these studies. It is (almost invariably) the case that the first group takes on either a productionist or stewardship approach, while the second group of the eclectic club follows a holistic or sustainability approach.

Potter's book can be accommodated in the first group; stewardship is the philosophy that informs agricultural production and environmental change discussed in the book. Yet, this book would not be too comfortable there, in the first group, because of its analysis of policy reform with specific reference to the political battles and social campaigns that brought about these policy changes. We are thus urged to admit Potter's work in a class beyond the two traditional groups of writing on agri-environmentalism; it is one of the few studies that tries to bridge the widening gap between the two groups in the literature. It is a rare book on the political economy of environmental policy in the agricultural sector. What makes it an exciting piece of reading over and above its vast canvas and wealth of information, are the emphasis on environmental policy, changes and responses, and a detailed analysis of the processes in different agri-environmental contexts. The latter adds a very important dimension to our questions about the path of future agri-environmental policy.

The book focuses on the processes and consequences of agri-environmental policy changes in the United States (US) and the European Union (EU). Given different political cultures and institutional structures, the evolution of agri-environmental policy has been different in the US and the EU. Yet, there are marked similarities in the processes and the political debates that triggered and led the policy reform movement in these two contexts. The author presents a deft analysis of the evolution of environmental policy for the farm sector in these contexts and eventually leads the reader to agree with his conclusions about the possible paths that agri-environmental policies can take in the industrialised countries. Presented in seven well-defined chapters, the book is a treat to any reader interested in the agriculture sector, in policy reform or processes therein, in the environment, in the impact of regulations/legislations, or even in lobbying.

For, lobbying is the sum and substance of the processes that led to the environmental policy reforms in the farm sector. Both in Europe and the US, environmental groups campaigned initially on their own, and increasingly against a farm sector which was being subsidised by the state to produce more and more damaging environmental consequences. This did gradually change the public appreciation of farmers as environmental stewards. But it was only with the support and active involvement of the farm lobby that the environmental policies came to play the role they did in the farm sector. The powerful farm lobby accustomed to the long period of agricultural support, since the Great Depression of 1929-30 in the US and the mid-1930s in Europe, had to find ways of reconciling the competing goals pursued by the environmentalists and farmers. In the 1980s, increasing policy retrenchment meant that agricultural support from the national exchequer would be reduced substantially, unless otherwise legitimised. In the political bargain struck between the two groups, the farm lobby found in agri-environmental policy, a new way of legitimising government subsidies; the environmentalists though not too happy with the extent of compromise, managed with amazing efficiency and speed, to introduce sophisticated policy ideas and instruments such as 'environmental contracts', and 'conservation compliance' into the debate, and did succeed in gaining

enough green policy space to mark a beginning. What is evident from the experience of these environmental reformers in both the US and UK is "the policy thesis" (p 59). In both cases, the reformers had to tow the line of "agricultural support being the driver of environmental change in rural areas" before they could begin to lobby for policy reform (p 60). This gave policy-makers the 'green' signal to introduce pseudo-green reform: they added agri-environmental policies as an "accompanying measure" to what is essentially a productivist system of agricultural support (p 154).

Carrying on from a delightfully racy introduction, the author reveals some of the important developments in the 1970s and 1980s that led to agri-environmental reform in the industrialised countries. Potter presents an impressive argument in chapter 2, to show that it was ultimately, budgetary pressures than environmental reasons that led to policy reform. Agricultural overproduction, combined with land using technological change had by the mid-1980s put farm support systems in the US and the EU under pressure to find ways of reducing farm support and limiting the environmental consequences of these farm support schemes. Given the scenario of massive policy retrenchment, these environmental policy reforms were seen as instruments to tackle overproduction and pull back price guarantee schemes (in the US and the EU, respectively), while maintaining public subsidy for the farm sector to assure that farm incomes were not affected. Ultimately, these agri-environmental reforms of the late 1980s and early 1990s turned out to be substantial investment of public money into schemes that subsidised environment management in the farm sector; it was in effect an agenda that set to defeat its very existence.

In chapter 3, Potter takes on the US agri-environmental policy from the enactment of the Conservation Deal by the Reagan administration in 1985. The New Deal (as it was popularly known) was the product of an interestingly diverse political coalition: Every party (the farm income supporters, conservationists, environmentalists, supply management groups) had its own interest; they all jumped on to the policy omnibus with the Conservation Reserve Programme (CRP) as the main engine. The CRP was "to assist owners and occupiers of highly erodible cropland in conserving and improving the soil and water resources of their farms and ranches" (p 62), through a system of competitive bidding. The CRP which proved to be too expensive, did not ultimately bring environmental value for money. But it was rather late in the day when the environmentalists noticed this anomaly.

Since 1986, the debate on environmental return to this investment pointed to a basic problem of discretionary powers granted to the USDA and the agencies implementing the conservation title. The decisions regarding eligibility, enrolment targets and bid acceptance criteria were made by the secretary of agriculture, but were gradually changed as the CRP evolved, revealing a significant dilution of the programme's conservation mission.

Despite vociferous debates on increasing environmental value for money spent, the agri-environmental lobby managed to pass the Food, Agriculture, Conservation and Trade Act in 1990, consolidating and refining many of the 1985 reforms. *This* was proof of the pudding; the lobby had managed successfully to shift the emphasis from soil erosion to a much broader set of environmental concerns while retaining the essential features of the act. An 'environmental benefit index' was now introduced to aid the discretionary powers vested with the USDA. Eligibility for conservation title was now based on a calculation of monetised environmental benefits likely to be generated relative to payment. Wetlands, unlike croplands earlier, were now the priority. Despite all this, the programme suffered from lack of long-term planning; over 63 per cent of the farmers confirmed that they would return the land to crops once the 10-year conservation contract expired.

This trend, plus the possibility that the federal government would not provide long-term support for conservation plus the recent GATT negotiations and the vision of expanding liberalised global markets, set the stage for the next phase in environmental policy reform. Here, the conservation options were broadened. Land retirement was not the only means; there was increasing attention given to complementing technologies (such as precision farming and integrated pest management) that would keep land under production with minimal environmental costs. The 1996 Federal Agricultural Improvement and Reform (FAIR) Act originated in a proposal to eliminate all agricultural support (p 134). Though FAIR was enabled by the opportunism presented by a buoyant domestic market, it does reflect the long-term vision of the US towards de-coupling farm support and conservation.

Agri-environmental reform in the UK came way too reluctantly and almost by accident when a group of farmers were subsidised by the Countryside Commission to continue their environment friendly traditional farming in the Halvergate Marshes. Chapter 4 captures the slow and bureaucracy-burdened evolution of environmental reform in the British farm sector. The Broads Grazing Marsh Scheme (BGMS) which offered a flat-rate payment to a group of farmers who agreed to maintain environmentally sensitive husbandry, proves that the concept of "paying farmers to produce countryside" had taken root in the policy circles. This embodies the stewardship approach in the UK. The Agriculture Act of 1986 enabled implementation of the environmentally sensitive areas (ESAs) scheme. Eligibility, scope and coverage, procedures, and criteria for the same were soon drawn up, and the scheme implemented in 12 designated ESAs in UK. "Five-year agreements designed to maintain traditional practices, prevent further intensification and, in some cases, encourage modest habitat and landscape restoration, were soon on offer to several thousands of farmers..." (p 85). The ministry of agriculture, fisheries and food (MAFF) undertook to give specific management prescriptions to each of the designated ESAs, publish performance indicators, and the coverage of agreements and changes in the extent of different wildlife and landscape features (p 86). Though farmer response was enthusiastic, surveys reveal that farmer participation depended on the extent of change that was expected of them, a kind of "goodness of fit" between scheme prescriptions and existing farming system. Steward-minded farmers were definitely a minority

As in the US case, here too policy-makers were soon under pressure to prove value for money. Moreover, the environmentalists were clamouring for ESAs sans frontier, when the bureaucracy had taken over the minutiae of policy design and implementation. Attention was soon shifted to "paying for a product" than subsidising farming in ESAs. The Countryside Commission was entitled to purchase environment from farmers who would (after competitively bidding) provide or supply environment. With the entry of market-based transactions in environmental reform, the 1991 Countryside Stewardship Scheme (CSS) embodying this discretionary principle was introduced. Several features, including participation of farmers with their own proposals for enhancing landscape and habitat, soon made the CSS the most effective scheme of the MAFF.

The CSS and other agri-environmental schemes were, however, going against the set practice of production subsidies which was the ultimate goal of the EU and the US given the increasing prospects of liberalised global markets. The UK environmental reforms had nevertheless set the stage for "issue transformation", a prerequisite for incremental policy change, when change depends on stable coalitions around particular conceptualisations (p 6). This helped the EU to reconcile what was often radically different conceptions of agri-environmental policy in its member countries. Chapter 5 analyses the evolution of agri-environmental policy reform in the EU which drew from the UK reforms to start with but was far more open-ended and permissive. The idea of 'extensification' was at the core of the EU agri-environmental policy dedicated to the prevention and control of agricultural pollution as well as the management of the countryside. This paved the way for a common EU policy towards environmental reform, despite protests from southern member states about reinforcing the nothern bias of rural policy. The Agri-Environmental Programme of the EU, published by the commission by 1990, followed the two-pronged approach to extend the scope of Article 19 beyond specific locations for managing the countryside according to specific prescriptions, and second to use extensification schemes to reduce the intensity of agricultural production and to tackle pollution (p 115). Farmers were now seen as more than food producers; they were also providers of environmental services and the taxpayers were willing to pay. But the EU has come under severe criticism because its AEP is far outweighed by the CAP's price and production support under the MacSharry reforms. Moreover, the very decentralised format of the regulation and its open-ended implementation in each member state may help the agricultural lobby to "exploit the ambiguities... to develop new forms of income support" (p 123).

One major problem with the EU's AEP is the definition of the extent of extensification sought. The "substantial reduction" in input use sought, is not defined. Is the reduction to be made in absolute or relative terms? Will it help if a farmer adopting intensive cultural practices reduces input use marginally? The question now is whether the taxpayers must pay farmers to undo what they were previously (with CAP sources) paid handsomely to do? (p 125). Finally, it may be the case that the open-ended permissive policy reform will have to be replaced with an "adverse selection" of traditional farming especially in the southern states, where the policy will help preserve high natural value farming systems. The agri-environmental policy is still in an experimental state in most EU member states, with each state trying to prove more environmental value for money, as the desire to improve the additionality effects of the AEP reveals.

The final statement, shaping this evolution of agri-environmental policy will come from trade. The WTO demands an internationalisation of agri-environmental issues and policies. Chapter 6 deals with these trade pressures. Potter hopes that the Uruguay Round will mark the undoing of traditional farm support policies and set the stage for a truly liberalised agriculture sector, where environmental policies will not be sabotaged to income support schemes. Farmers will increasingly be contracted to produce public environmental goods in industrialised countries. The collective subsidies to the farm sector will henceforth be replaced by individual merit, where the continued reform of agricultural policies will perhaps be replaced by abolition of agricultural policies. A genuine de-coupling of agricultural support and environmental reform seems to be the scenario for future agri-environmental policies. But, as the case histories and their respective political cultures have revealed, the US and the EU will adopt different routes to arrive at the same goal; a permanent agri-environmental policy space within rural policy.

The concluding chapter 7 is a recapitulation of the evolution of agri-environmental policy in these industrialised countries. Potter points out that agri-environmental policies can no longer be a cover for the pursuit of traditional policy goals like farm income support or control of overproduction. The contrast between the US and the EU environmental reforms (specific environmental audit-based and centralised, versus open-ended and decentralised), raises an important question about the extent to which environmental value can be monetised and the nature of appropriate distribution of the powers of discretion. As evident from all the three cases, US, UK and EU discussed here, land retirement and precision farming, countryside management and extensification have provided environmental goods that are hard to measure and very difficult to assess. In the EU case in particular, the desire to effect additionality, has increased the administrative and transaction costs; are these extensification schemes replicable?

Fortunately, one of the interesting developments in this emerging agri-environmental policy scene, is the policy learning process, the policy assessment process, and the co-evolutionary shift in policy emphasis. All these confirm that change in environmental policy in the agricultural sector is more evolutionary than revolutionary. Potter identifies farmer behaviour as an area where evolutionary changes are called for; once contracts expire and farm support is scaled down and de-coupled, these countries have to ensure that regulations are in place to ensure that some safe minimum standards are maintained. "Policy measures which encourage positive attitudes to conservation will in the long-run be more effective... and will increase the output of conservation goods at any specified level of budgetary costs" (p 160). Unless this change in farmer attitude is effected, the policy shelf-life of these measures will be very short indeed.

The US and the EU may also differ in the paths of agri-environmental reform in future if the west European attempts to promote a long-term 'green recoupling' does succeed lobbying within the EU. The US, given its international position as the instigator of the GATT and WTO negotiations, will increasingly de-couple and focus on engineering environmental improvements into the farming system. The EU, in contrast, may move through a longer period of transition to a liberal market regime, attaching in the process, more restrictive conditions to any income support that farmers may receive. In the EU public support to farmers may be justified eventually as part of a continuing social contract; but this will increasingly be couched in terms of individual merit rather than collective desert (p 161). Both the EU and the US will have to concentrate on defining agri-environmental quality standards – for soil and water quality habitat protection and landscape maintenance; the role and significance of a sophisticated and socio-cultural context sensitive environmental science is not to be undermined (p 161). The book concludes with a few important questions that need to be answered to ensure politically sustainable agri-environmental reform in these countries: what is the correct balance between subsidisation and regulation? are taxpayers willing to support programmes which may not have immediate or measurable environmental benefits? will farmers be willing to take on the role of environmental stewards

being prepared for them" (p 162). While the conclusion leaves the reader with a fascinating list of puzzles and problems to ponder over, it also adds to the enigma of the book.

If this is the process and possible future of agri-environmental reform in industrialised countries preparing to face an increasingly global and liberalised international market, where and how do the predominantly agricultural countries figure in this process and in this rosy environment sensitive future? How, for instance, will the Indian agri-environmental reforms progress? It is now accepted that there is considerable negative environmental output in several areas of agricultural operation in the country. For example, the wheat-based and rice-based farming systems are increasingly threatened by salinity, alkalinity, pesticide and other chemical residues, so on and so forth. The powerful farm lobby in [illegible] demands further input-subsidi[illegible] and price/income support from agricultural policy; and the government concedes. In these successful (green revolution) parts of the country where inputs (number of irrigations or units of fertiliser/per crop) far exceed the research recommended dose, the government has not initiated any reform to curb this unnecessary intensification. In other parts where crop loss due to want of critical inputs/knowledge is routine, the government has been unable to provide any long-term solutions to help these subsistence farmers out of the traditional technology-cum-poverty trap. Will the EU type open-ended and permissive agri-environmental policy be the right option for India? If yes, where will we find the funds to subsidise farmers to produce countryside? Will farmers be willing to play the role of environmental stewards in a poor country where each harvest translates to number of meals, duration and severity of morbidity, access to health and education services, and other essential survival inputs? Who in a poor country would want environment more than food, assuming that there is a question of bargain here?

This is not to say that the book does not mean much to a poor third world country. Conversely, it is to say that the environment and its quality is just as important in India as it is in the US or the EU. In India, we have to find our own agri-environmental policies, our own equations of the balance between subsidies and regulations, our own programmes for the long-run attitudinal change in the farming community, and last but most important, our own decentralised technology generation systems that can ensure participatory development of technologies such as precision farming or integrated pest management to produce the optimum crop from each type of land, while improving environmental quality and reducing pollution. Land retirement as an option in agri-environmental policy, is ruled out in India. There is no doubt that our farmers will respond to a "conservation deal": they are more concerned about their lands than the urban elite or complacent bureaucracy or the vote-hungry politicians are. Perhaps the one group that shares this concern in India is the environmental lobby.

While lobbying as an art is still in a nascent stage in India, the environmental groups are already as split as they are in the rest of the world. Potter's book could have been enriched by a section devoted to the evolution of the environmental lobby in the US and the EU since the 1980s. It was after all the loss of cumulative lobbying power of the environment groups that forced some of them to join hands with the powerful farm lobby to gain whatever little policy space they could. Fundamental philosophical problems in ecological thinking led to the break up of major 'green' groups and dilution of their agenda in the EU member states, in Germany and France in particular. Fierce debates within the green party about possible alliances, future course of action, gains and losses, have added valuable insights to the evolution of environmental reform in the EU countries. The debates presented in this book could have been illumined by the lessons learnt from the history of divisiveness amongst green groups.

Finally, Potter's book calls our attention to the need for evaluation; whatever the context is, industrialised or agricultural, every country will increasingly depend on evaluation reports to decide future agri-environmental policy. Methods and tools of evaluation for sustainable environment friendly agriculture demands inputs from several disciplines. It demands the integration of an environmental ethics of agriculture into the evaluation tools and techniques. In other words, only an ethically informed assessment of agri-environmental change can provide the inputs for a politically and socially sustainable environmental reform in the agriculture sector.

What Did They Mean by 'Public'?

Language, Literature and the Politics of Nationalism

Francesca Orsini

During the late 18th and the early 19th centuries, the Hindi literati tried to lay down general principles and norms for Sanskritised Hindi which alone was to be Indian Hindi. For others, writing off old rules and beliefs and treading new paths was possible and desirable. The normative view prevailed and Hindi, which had the potential of becoming a unifying language, instead became an exclusivist language.

I
Introduction

IN Phaniswarnath Renu's novel *Maila Amcal*,[1] set in north-eastern Bihar in the 1940s, Congressman Baldev tries to impress upon his fellow villagers that he is a dedicated activist by quoting a letter addressed to him by a local Congress leader. Although the letter is in Hindi, nobody can understand it, let alone read it, for it is written in the Sanskritised Hindi of public discourse. The words that villagers would not possibly understand are given in bold.

> सेवा में बालदेवसिंहजी। महाशय! आपको **विदित** हो कि कस्तूरबा **स्मारक निधि** की एक अस्थायी कमेटी गठन करने के लिए कांग्रेसजनों की एक **विशेष बैठक** ता. 8-12-45 को पूर्णिया धर्मशाला में होगी। इस बैठक में बिहार के **भूतपूर्व प्रीमियर** भी **उपस्थित** रहेंगे। इस **महत्वपूर्ण बैठक** में आपकी **उपस्थिति** **आवश्यक** है। आपका, विश्वनाथ चौधरी।
>
> To Mr Baldev Singh. **Sir**! This is to **inform** you that a **special meeting** of Congress members will take place on 8.12.45 in the Dharmashala in Purnea to **constitute** a committee for the Kasturba **Memorial Fund**. The **former premier** of Bihar will also be **present** at the meeting. At this **important meeting** your **presence** is **indispensable**. Yours. Vishvanath Chaudhari

The gloss ('arath') for the audience, interestingly, catches only the meta-message: that Baldev is respected by Congress leaders.

> चौधरीजी भी बालदेवजी से राय लिये बिना कुछ नहीं करते हैं। यह अपने गाँव का भाग [भाग्य] है कि बालदेवजी जैसा आदमी यहाँ आकर रहते हैं।
>
> Even Chaudhariji does not do anything without asking for Baldevji's opinion. It is the good fortune of the village that a jem like Baldevji has come to live here (p 31).

The register of the letter is enough to convey to the villagers that it speaks of power and officialdom. This letter encapsulates in a way the predicament of the public in the Hindi sphere: Hindi, not English is the language of the people and of popular politicisation. Yet the villagers mobilising and seeking links with the city cannot understand it because its public register is not modelled on their speech: it does not spring from the desire to communicate and to vernacularise knowledge, politics, etc, but from a concern over the status and purity of the language. This is reflected in the impersonal syntax and the use of words almost exclusively of Sanskrit origin. But is it just a question of wrong register, or doesn't the choice of this public language even for a private letter exchanged between two political workers force us to ask questions about the understanding of the public in colonial north India that remained relevant to post-colonial India, as well? Do the processes and tensions at work in the language mirror in some way larger social and cultural processes within Indian society?

What I am concerned with here are the ways in which ideas about language and literature reflected attitudes to the 'public' among Hindi writers and activists in pre-independent India, and the institutional space and impact these ideas had. In other words, not only why a certain form of Hindi came to be identified as the future national language but also how it became hegemonic. Also, were there other varieties, and did they mirror different views of the nation and the political community?

The first difficulty is with the word public. No word existed in Hindi to cover the semantic field of the term public. Yet the fact that several words were called upon to express this notion, each with its own history and shades of meaning, seems to me evidence enough that Indian writers were struggling to find equivalents for this crucial word in the political vocabulary of modernity. They distinguished 'sarkari', i e, official, governmental (as in public office, public property, etc) from public as pertaining to the community, which different words like 'jati' 'janta', 'lok', 'sarvasadharan' were called to express. This was the hub of the matter, and the efforts at translation show that this was perceived as a need and lack ('India needs a public') and reveal different views of political community. My understanding of what the word 'did' derives chiefly from Habermas, who defined the public sphere as

> a realm of our social life in which something approaching public opinion can be formed. Access is guaranteed to all citizens. A portion of the public sphere comes into being in every conversation in which private individuals assemble to form a public body...[2]

Although inspired by a similar ideal, Hindi understandings differed substantially from Habermas's model. In a nutshell, I shall argue that we can find two basic understandings of, and attitudes to, the public in late 19th and early 20th century Hindi: (a) a normative attitude that interprets public in terms of jati or community. By normative I mean an understanding of the public and of public institutions as spaces where one set of values is circulated that should constitute the norm for all; (b) a critical attitude that views and uses the public as a space where norms and consensus are questioned in the name of reason or of particular interests and subjects. These two attitudes, which were by no means exclusive of one another, will become clear in the following discussion of ideas about language and literature. As I shall argue, they also translated into different ways of using of public institutions like the press and education and into different attitudes to political participation and the nationalist movement.

II
The 'Public' and Public Language

Public Language, Nij Bhasha, Rashtrabhasha

Language and literature were at the centre of intense reflections about the progress of the country from the 19th century onwards. "The progress of one's language (nij bhasha), is the root of all progress' wrote Harishchandra in 1877, and this

rhetoric was there in all Indian languages, to my knowledge. All underwent a similar process of standardisation and adaptation in order to perform all the uses a modern language was now called upon to perform. The peculiarity of Hindi was that this process happened as a self-definition against Urdu, the dominant public 'vernacular' in north India at the time. Also, from very early on, that is from the end of the 19th century, Hindi was presented as India's potential national language. Without treading on ground already much covered by others, I would like just to briefly draw attention to a significant ambiguity in such rhetoric in Hindi.

> The progress of dharma and of the country rests on the propagation of the mother tongue and on the growth and enrichment of the national literature. To strive and work for the progress of Hindi is therefore presently the first and foremost duty of every patriot ('deshhitaisi')
>
> A man's mother tongue is as important as his mother and motherland. One who does not respect his language, who does not love it and enrich its literature, can never improve the state of his country. His dream of 'svarajya', his vow to improve the country and his praise of patriotism are quite shallow.[3]

The ambiguity is that the rhetoric of Khari Boli Hindi as 'mother tongue' and 'people's language' supported the development of something quite different, a written standard variety Hindi intellectuals and literary associations like the Nagari Pracharini Sabha of Benares (established in 1893) argued with the colonial authorities that Hindi, the 'people's language' ('janta ki bhasha'), was the only one fit for mass education. At the same time, they put pressure on the educated Hindu population of the province to switch allegiance from Urdu or English to Hindi. Using Hindi in a variety of public contexts was thus conceptualised as using 'matrubhasha' and doing 'desh-seva' or service to the country. This notion of 'mother tongue' delegitimised the position both of Urdu and English and of heterogeneous spoken varieties. For whereas 19th century writers like Bharatendu Harishchandra (1850-85) had used the variety of colloquial spoken language in a way that retained the particularity of language use, a generation later Mahavir Prasad Dvivedi (1864-1938) did, and exhorted other writers to do, exactly the opposite. By purging written, print Hindi of colloquialisms and regional usages, by privileging abstract over concrete words, by making Sanskrit loanwords the rule and fixing syntax along regular subject-object-verb lines, Dvivedi 'standardised' Hindi into a written, sober language. This was the language used in the journal he edited, *Sarasvati* (1900-20), employed by literary associations and spread through textbooks. Only in such form was Hindi deemed fit for public matters, for literature and to represent the jati, in a word fit to serve the many purposes of a modern nation.

Such a shift in the language used by journals and literary associations mirrors an analogous process in the attitude to public matters. Only that which could appear under the guise of a 'national' ('jatiy') question was fit to be discussed. What was particular, heterogeneous or could not appear under those terms was not part of the public. This of course does not mean that it disappeared, only that it did not become part of the public self-definition of 'Indian'. Such a language mirrored – and brought into being every time it was used – an (ideal) community of serious, equal, educated and public-minded Indian citizens without any other visible marker apart from education and familiarity with the common cultural tradition. Difference, conflict, caste, particular practices or interests were all pushed outside written language. The debates and campaigns over the 'national language' must be understood in the light of this cultural-political idea.

A second ambiguity had to do with the fact that the scholarly consensus that had crystallised around Hindi rashtrabhasha at the turn of the century was invoked by Hindi activists in lieu of political or cultural consensus. With a normative stance, they used the ostensibly neutral pragmatic and scientific arguments in favour of Hindi and of the Devanagari script to discursively delegitimise other claims and to deny the reality of Hindi's subordinate status in its own region – subordinate to English and, in the minds of the Indo-Muslim elite, to Urdu as well.

'Sahitya-Seva' and 'Rashtriyata'

Like language, literature too had to be thought through again in the light of the new categories of 'people', community and nation. The debates on the meaning of literature in Hindi journals show writers, scholars and critics grappling with the category of lok and the widespread implications it had for how they interpreted their role as writers and the function of criticism. As one critic put it so:

> [Earlier] literature was not created for the common people. Poets and playwrights were honoured only at the courts of a handful of literary-minded rajas and wealthy men, therefore neither did poets worry about the influence of their works on the common people nor did critics feel the need to evaluate the works from the social point of view.[4]

The tension between normative and critical attitudes was strong here: everything from style, taste, content, tradition, criticism and popularity was open to public discussion. And once accepted norms were questioned in the light of what were perceived as the 'needs of the time' and the 'welfare of the people' ('lokhit'), new guidelines and concepts could emerge only after public contestation. This, in turn, raised the question of authority, for if everyone could question them, who was going to set the new norms?

On the one hand, the recurrent metaphor of the 'bhandar' of Hindi that needed to be filled with suitable works reveals a yearning for a normative definition and a consensus about what Hindi literature 'needed' and what readers should read. It also reveals an uneasiness towards the eclectic literary scene and the market of popular publishing and the need to set new rules.

> Earlier by literature one meant a particular code ('sastra') related to the art of 'kavya' containing 'alamkara', 'rasa', 'dhvani', etc. which discriminated between its qualities and errors, as in the *Sahityadarpana*. Moreover, earlier literature used to rule over language, and poetry over grammar, and the literary scholar was the highest authority in deciding if a word was correct. But now since Bolshevism, like the sweep of time, has turned literature into a unified democracy, a rebellion ('gadar') has erupted in the realm of language! Anything which anyone may write in any style on any subject is called 'literature'. Every writer is completely free to write the way he wants. There is no obligation ('pabandi') to follow any rule ('qayda-qanun'), in fact there is no rule to follow![5]

The 'law and order' metaphor expresses well the discomfort and exasperation of the traditional literati with the new publicity of literature which upset the hierarchy of authority and genres.

On the other hand, the new 'Chayavad' poets vindicated the poet's individual right to break existing norms and explore new directions. In highly metaphorical language, Sumitranandan Pant (1900-77), for example, expressed his dissatisfaction with the poetic conventions of Braj Bhasha and the new qualities of Khari Boli poetry. Braj Bhasha poets had not explored the (national) space beyond Braj and the emotional space beyond that of devotion to god or of the various moods of the heroine: "those excellent poets could not

go beyond that three-foot long world from her tip to toe". Khari Boli poetry may lack the precious decorations of the 'temples' of Braj Bhasha but it had 'spacious avenues' and a 'market for novelties' from other parts of the country and abroad ('desh-videsh').[6]

The view of the foremost critic and scholar of the period, Ramchandra Shukla (1884-1941), professor at Benares Hindu University and the author of a seminal history of Hindi literature, exemplifies the normative synthesis of the debate. Shukla subordinated the individual genius of the poet to the welfare of the people and held that litterateurs' aim was to change and improve their tastes ('lokruci'). Only after a poet had read studiously, cultivated a wide intelligence, reflected on contemporary society and its problems and listened to the advice of older, more experienced scholars, could he enter the field of literature, and even then with no freedom to write whatever he wanted. His aim was to capture the 'yugdharma', the 'dharma of the age', 'the ideal distillation of people's taste'.[7]

We see here a peculiar tension between the crystallising of a notion of the writer as the vanguard of society, which bestowed upon him/her great authority, and a subtle form of control, as if only a restrained, norm-abiding and selfless individual had the moral right to be called a writer. This, indirectly, bestowed even greater authority on the critic, who became the appointed judge not only of taste but of a writer's behaviour and would discriminate between those who wrote good and useful literature and those who did not.

III
Print Media

Where and how did these discourses on language and literature circulate, and how much of an impact did they have on north Indian society? In order to answer these questions it is necessary to turn to the social space and dynamics of the various 'institutions' – journals, associations and education – where these discourses circulated. In this way, I hope, their role in enhancing one or other understanding of the 'public' – normative or critical – will become clear.

Journals and newspapers: As Vasudha Dalmia has eloquently shown in her book on Harishchandra,[8] Hindi editors of his time had a very clear idea of the public function and potential of journals, plays, associations as critical instruments of public opinion. Harishchandra's articles, speeches and skits both addressed the community and claimed to represent its views to the colonial government. If we look at developments in Hindi journalism in the early 20th century, we can usefully distinguish four types of press:

(a) Normative Reformism: Mahavir Prasad Dvivedi's *Sarasvati*, the most influential miscellaneous monthly of the first two decades and a model for subsequent literary journals, represents the trend that could be called 'normative reformism'.[9] Dvivedi set the standard in many ways: through his example and relentless work correcting other people's contribution, he established a standard form of Khari Boli prose. Rejecting the language, content and aesthetics of Braj Bhasha poetry, he lay down rules for a new poetry in Khari Boli that would express suitable and inspiring feelings.

He urged poets to write on nature, on historical figures and events and on topical and patriotic matters: for example, a team of 'Dvivedi poets' (including Maithilisharan Gupta and Nathuram Shankar Sharma 'Shankar') was commissioned to illustrate with poems reproductions of Ravi Varma's 'historical' paintings. The most famous poet of the group, Maithilisharan Gupta, wrote successful mythological reworkings and a long poem modelled on Hali's *Musaddas* on the 'past, present and future' of the Hindu 'jati' ('we') which achieved unparalleled success. Only works and authors that corresponded to Dvivedi's tastes and standards could appear in *Sarasvati*. He became an extremely authoritative editor-critic. He was also an extensive and regular reviewer of Hindi publications, and although he was supportive of all works and initiatives that filled the 'Hindi bhandar' his stinging sarcasm directed at works that did not meet his rules were famous. On poetry describing the different kinds of beauty ('nayika-bhed'), he wrote that money could be better spent otherwise, and about popular fiction he urged writers and publishers to change subjects:

> यदि इन ग्रंथों के बनाने, छपाने में जो व्यय किया गया, वह जीवनचरित्र, इतिहास अथवा किसी वैज्ञानिक ग्रंथ के लिए व्यय किया जाता तो भाषा का भी उपकार होता और धन का भी सद्व्यय होता।
>
> If the money spent on making and printing these works were used for books of biography, history or science it would be a benefit for the language and a better use of the money.
>
> (M P Dvivedi, 'Nayika-Bhed', *Sarasvati*, June 1901.)

> मैं इतना और लिखना चाहता हूं कि आजकल ऐयारी, तिलिस्मी, जासूसी और प्रेम कहानी के नाटक उपन्यासों से जो हिन्दी का भंडार भरा जा रहा है, यह भी साहित्य के लिए हितावह नहीं है। इसकी जगह यदि हिंदी के प्रेमी चरित्र शोधक, व्यापार, शिल्प विज्ञान, रसायन, यूरोप और भारत के इतिहास, यूरोपवालों के उन्नति के स्वरूप और साधन आदि विषय में अपनी लेखनी उठाने का साहस करें तो अवश्य हिंदी का उपकार और पाठकों के चरित्र का निर्माण हो सकता है।
>
> I only want to add that the stream of magical, adventure, thriller and romantic plays and novels that is filling the bhandar of Hindi is not beneficial to literature either. If instead Hindi lovers had the courage to take up their pens and write character-building books and books on crafts, chemistry, European and Indian history and on the nature and means of the progress of Europeans it would undoubtedly bring benefit to Hindi and improve the character of readers.
>
> (M P Dvivedi, 'Granthakarom Tatha Prakasakom ke Nam' *Sarasvati*, May 1922.)

He could be equally sarcastic towards contemporary writers such as the experimental Chayavadi poets, whom he called 'illiterate', 'useless' and harmful to Hindi literature.[10] Dvivedi thus embodied the figure of the editor-arbiter, and after he retired from *Sarasvati* his absence was often lamented by those who perceived the eclecticism of Hindi literature as detrimental chaos.

Dvivedi used the journal as a means to spread standard norms and values in the public sphere and took his role as arbiter of public taste very seriously. Despite a self-imposed censorship on religious and political matters, he certainly performed a political role in laying down a blueprint for the Hindi community and drawing their attention to the role and duty of public opinion to check on government administration. As the quotations made clear, he saw the role of the editor and writer as an educational one of 'character building', and the boundaries of the 'public' were very clear.

(b) Literary Openness: The monthly *Madhuri* (1922), although inspired by Dvivedi's example, shows how openness alone made all the difference. *Madhuri* was an open venue for different tastes and different opinions: from Braj Bhasha to the latest experimentations in Khari Boli. *Madhuri* mirrored tastes and changes rather than guiding them. It published old and new poems in Braj Bhasha, showing that the taste for it was far from dead. In doing this it helped the process of realigning the Braj Bhasha tradition on the printed page thus ensuring the continuity of literary transmission. It is difficult to underestimate the importance of Dularelal Bhargava's journals (*Sudha* after *Madhuri* in 1927) and publishing venture, the Ganga-Pustak Mala, for modern Hindi literature.

All the Chayavad poets were published in *Madhuri* while *Sarasvati* still kept its doors closed to them. New writers, both

controversial and unknown, were published: novelty and commercial success were a value for *Madhuri*'s enterprising editor Dularelal Bhargava (1895-1975). Although limited, the space provided by this and other journals was enough to support a growing number of professional writers and a literary market. The openness to novelty and to eclectic tastes and the prestige and (relative) commercial success of the journal were to Hindi writers a tangible proof that Hindi literature had matured and that they were playing a historic role as the cultural vanguard of nationalist regeneration. Also, it was here that a debate on the notion of literature could take place.

(c) Critical Voices: Contemporary to *Madhuri*, the women's monthly *Chand* (Allahabad 1922) provides the best example of the use of the journal as a critical medium and is particularly interesting for our discussion: the strategies by which women's questions and voices contested and extended the boundaries of the 'public' are well worth considering.

Women's columns had started appearing in mainstream Hindi journals and women's journals were becoming more topical, a sign that female readership was recognised, but still as a separate group with separate concerns. It was *Chand*, launched by the enterprising Ramrakh Singh Sahgal (1896-1952), that finally broke the mould of separate 'stri-upyogi' literature, questioned the home-bound role of women and placed women's issues at the core of svarajya, just as socialists would do a decade later with peasants and the economic question. Its immediate success proves it met an existing demand. (With 15,000 copies, it was the most popular monthly in Hindi.[11])

So what did *Chand* do? It broke the boundaries of (a) 'what women should know' and (b) 'what women should say'. In the first instance, it dedicated more space to news than any other women's journal – more than most monthlies in fact. All sorts of political, economic, social and historical topics were presented with no censorship of any kind: scattered among tips on hygiene, such seemingly 'neutral' information carried in fact a much wider and political education than could be achieved through schools by simply exposing women to information they would not encounter elsewhere. Implicit in this uncensored flow of information was the idea – crucial to Habermas's model – that exposure to information itself develops critical attitudes and political awareness by making issues public and the concern of each reader.

Chand carried extensive news on women 'satyagrahis' and women entering new professions or treading new paths, presenting it all as part of the same, irresistible wave of women's awakening. In the editorials the ideal of 'seva-dharma', of 'service', was taken up and redefined in terms that legitimised women's access to the public sphere.[12] Editorials also bluntly raised less palatable issues such as that of women's economic dependence and precarious position in the family and supported strongly the link between education and respectable employment.

The other remarkable novelty introduced by *Chand* concerned 'what women could say'. Publicity was extended to other dimensions of women's lives and especially their emotional needs. Stri-upyogi literature and journals thus far had envisaged women as totally self-sacrificing and focused exclusively on their duties and ideals.

Of course, stressing women's ideals was a strong plank from which to argue for their worth. Yet, by publishing letters and fictional 'true stories' *Chand* not only played a critical role but introduced the recognition of the individual's 'right to feel'. Invariably defending the individual woman's weakness and feelings, this writing highlighted the shortcomings of a purely normative attitude and urged the renegotiation of social and family norms. The 'true stories' of abandonment into destitution, sale of brides, polygamy, family corruption, unlegalised marriages and sexual relations belied the normative image of the 'Aryan family' – often boldly thematising the thin line between marriage and prostitution from the women's point of view. In fascinating ways, these 'true stories' bridged the gap between serious and commercial fiction, from which they borrowed schemata and plots.[13] Letters and first-person narratives introduced a sense of urgency and the powerful element of personalisation: this meant that the reader was forced to come face to face with the cruelty widows experienced in the family (D Chakrabarty).

The helplessness and commonality of the experience of Hindu widows became a metonymy for the condition of Indian women in general. Personalisation also meant that these life stories legitimised women's voices, their right to suggest solutions to their own problems, a new sense of individual worth and emotional life, for example, the need for kin relations to be intrinsically affective. Thus, while male reformers concentrated on widow remarriage or appealed piously to families to treat widows humanely, women's articles and testimonies spoke of a different agenda: they insisted on the right to retain one's property and place in the family; on the need for respectable employment and a place to stay; if 'fallen', to receive the same treatment as the male seducers or unlawful partners.

In other words, *Chand* exemplifies the critical use of the journal as a space where a subordinate or marginalised 'epistemological community' could criticise established views and norms and construct knowledge collectively (Assiter).

If to understand public as jati tended to naturalise definitions and freeze the process of public debate into a new status quo, new voices could exploit the implicit openendedness of publicity to redefine the basis of common sense and the boundaries of the 'public'. For example, 'justice' was introduced as a basic category by both women and peasants, and both posited the necessary connection between 'svarajya' and social change. Such a move required nevertheless additional strategies: to paraphrase Nancy Fraser, when peasant leaders intervened in the public sphere they found that the overarching nationalist 'we' did not really represent them, and when they found a voice and words to express their thoughts they discovered they were not heard.[14]

In other words, publicity itself proved not to be enough for ideas to become acceptable: if for example it was argued that it was not right to marry girls before puberty as common custom maintained (at least for the upper castes, the protagonists of the public sphere in north India), such an argument could do little against social pressure to do so until institutions like girls' schools, other pressures such as a desire for educated wives and even more radical alternatives such as women teaching, writing and taking part in the nationalist movement, made the idea of marrying a girl after puberty sufficiently 'tame' to be accepted

For this reason, extra-discursive forces such as political mobilisation or institutional support hold exceptional importance and are often decisive in determining access to, or exclusion from, the public sphere. To give another example, peasant leader Sahajanand discovered that the best way to press home the point of peasants' participation in the political struggle for svarajya was to hold massive rallies in which peasants could be physically 'seen' and feel their own strength.

(d) Vehicles of Popular Opinion: Political dailies and weeklies such as *Pratap* (Kanpur 1920, ed G S Vidyarthi) *Vartaman* (Kanpur 1920 ed R Avasthi) *Aj* (Benares

1920, ed B V Pararkar), *Sainik* (Agra 1925, ed K D Palival) represent the fourth kind of periodical publication, deliberately moving beyond reformist concerns. In fact, it was from these newspapers that the leadership and manpower for the Congress Socialist Party in UP emerged in the 1930s. Their move implied a different attitude to the public, no longer a middle class, paternalistic view of the Hindi public but a conscious identification with the 'common people' (janta, sarvasadharan).

If Madan Mohan Malaviya (1861-1946) had written in his weekly *Abhyuday*:

> Just like dawn announces sunrise, the birth [of leaders] announces the future rise of the nation. It is they who first dream in their minds the edifice of the nation and *display it in front of the general public* (sarvasadharan) drawing a picture of it with speeches and articles. And through their speeches and articles they forge whatever elements and strength are needed to build that edifice.[15]

now Baburao Vishnu Pararkar (1890-1955) reminded Hindi editors that their peculiar duty was to find out how common people lived, the struggles they went through and mirror them in the newspapers: "Until we adopt the common people and turn our newspapers into their mirror we shall not progress and serve the real ('prakrit') nation" [as opposed to the 'artificial', 'kritrim', one of Anglo-Indian newspapers].[16] This move involved a set of shifts: (a) in subject matter, (b) in language and (c) in attitudes to the Congress and the political movement.

(a) Firstly, news about peasants and workers started to feature regularly and extensively, much more so than in other moderate English and Hindi newspapers (like *Abhyuday* or the English-language *Leader*). *Pratap* was especially involved in the Awadh peasant movement of 1920 supporting peasants' grievances with arguments and taking side against the zamindars. The editor and manager were taken to court and jailed in a famous libel case launched by the local taluqdar. Both *Pratap* and *Vartaman* were active on trade unions issues in Kanpur.

(b) Secondly, there was a shift in language: far from the neutral, impersonal and sober language of *Sarasvati*, the language of these newspapers was much closer to colloquial speech: syntactically simpler, it made frequent use of idiomatic expressions, used few Sanskrit loanwords and more words in current use, not excluding those of Perso-Arabic origin.

(c) Finally, making people, the sarvasadharan, the locus of authority brought several other implications for attitudes towards the politics of the nationalist movement. If the Congress were really the "voice of the whole of India" as it claimed to be, "now those doors must be open which for some reason have been kept closed so far" wrote Ganesh Shankar Vidyarthi (1890-1931) in 1915:

> Now the time has come for our political ideology and our movement not to be restricted to the English-educated and to spread among the common people ('samanya janta'), and for Indian public opinion ('lokmat') to be not the opinion of those few educated individuals but to mirror the thoughts of all the classes of the country. When we agitate for svarajya we should not forget the principle of a famous political thinker that democratic rule is actually the rule of public opinion.[17]

This espousal of the janta carried also a structural critique of constitutional politics. Popular opinion was rightly against the legislative council, wrote *Sainik* editor Shrikrishna Datt Palival (1895-1968) in 1936:

> The councils are temples of 'maya' because ostensibly they are there to help people rule and to hand the strings of power over to their representatives, but actually (pratyaks mein) they fulfill the interests of the ruling and capitalist classes! The whole electoral procedure is a demonic 'maya' ('raksasi maya') from the beginning to the end...In the councils and assemblies one meets power and wealth face to face [and] the rulers' rights are kept safe in a temple where [people's] representatives are denied entry, just like untouchables.[18]

The shift of the Hindi political press from being 'journals of ideas' for the educated few to newspapers reflecting and representing the 'sadharan samaj' is revealing of a point I would like to make later and that is crucial to my understanding of the Hindi public sphere: it was nationalism, particularly nationalist campaigns, that brought together the world of the literate elites and of the 'common people' and lent them an apparent unity.

In the Hindi press we found both normative and critical attitudes to the public. In the first case the journal was used as a way to transmit ideas and 'display the blueprint of the nation' to a public that needed to be educated. Ideas and norms, whether about language or about society, were presented as issuing from an already established consensus. Debate, dissent and diversity were devalued as 'confusion' and easily termed 'un-Indian'. In the second case, newspapers were used as a forum for debate open, theoretically, to all. New voices were not only allowed to raise issues concerning them as public issues, but were invited to do so in order to become part of the overall Hindi public. While in the first case editors favoured the strategy of putting pressure on colonial institutions (constitutional politics), in the second case editors emphasised direct participation and the accountability of leaders to the public they represented. The present age was acknowledged as the age of the masses and called the 'kisan yug'. In this perspective, svarajya had no meaning without social change.

IV
Normative Institutions

This brings us back to our initial question: if the Hindi scene of the 1920s and 1930s was so strongly marked by populist tendencies, critical voices and open debate, how did the Sanskritised Hindi of Baldev's letter prevail? Once again we have to turn to institutional spaces, this time associations and education. For the gradual expansion of polite or 'shuddh' (pure) Hindi as public language, and also of the normative views of language and literature, took place thanks to education and literary associations. They were also closely related in terms of manpower and of cultural attitudes.* It is useful therefore to dwell a bit on the dynamics that made them normative institutions and successful ones, too.

Associations: The Nagari Pracharini Sabha (1893) of Benares is undoubtedly the most impressive example of voluntary association and of what one such body could achieve in the framework of colonial rule. Established by a handful of college students with no money of their own, it grew with some government support and some patronage from the community, but mostly on the strength of its own activities. These were all 'canon-building' activities: the aim, to establish shuddh Hindi as the public language of the region, to fill the bhandar of Hindi with suitable books, and to draw up a canon of the Hindi literary tradition.

Established at the time of the Hindi-Urdu controversy, the Sabha bore the mark of the exclusivist discourse of the time, as its view of the unbroken tradition of 'Hindi', inclusive of all literary and regional varieties, amply shows. According to one of the first statements of the Sabha, Hindi had existed since the 11th century, but its further progress was prevented by the Muslim invasion of India and the creation of Persian-mixed Hindi, i e, Urdu. Hindi's survival strength was evident in the fact that even Muslim rulers had patronised Hindi poetry, while Sanskrit

remained the most important language of prose.[19]

All the Sabha activities gave substance to this view: the compilation of a monumental dictionary, the search for and cataloguing of old Hindi manuscripts throughout north India, the critical editions of Hindi 'classics' and lesser-known historical manuscripts; the many series of 'suitable' books for adults, boys and girls; the distribution of endowed prizes; the large public library, a scholarly journal, lectures, etc. All contributed to the canon- and character-building vision. The pool of scholars these activities drew together effectively shaped the Hindi literary tradition as we know it now and spread the Sabha's normative view on language and literature through innumerable textbooks and anthologies.

It is interesting to note the Sabha's attitude toward the colonial government: it was one of co-operation and pressure (as representative of the 'Hindi community'). The Sabha's idiom of progress and scientific work was quite effective in securing government patronage, particularly thanks to the presence of pro-Hindi officers in the education department. In turn, official patronage and financial support enhanced the authority of the Sabha in the community and the literary sphere. It was this institutional and ostensibly 'neutral' patronage, with set rules and judging committees, that the Sabha started to reproduce with its annual lists of the best books and by awarding literary prizes. In this way the association became a seat of recognition and its active members became 'literary experts'. And when the first Hindi department was founded at Benares Hindu University, it was the scholars from the Sabha who were called to man it (Ramchandra Shukla, Bhagvan Din and the founder, Shyam Sundar Das). This new institutional position further enhanced their authority.

Education: Education was perhaps the most successful area of influence of Hindi intellectuals and it is remarkable how they were able to capture this key instrument in the transmission of culture already in colonial times. The teaching and textbooks of language and literature transmitted not only the canon developed by the literary associations, but also the social relations embedded in the 'shuddh' language that was chosen.

Hindi intellectuals were keenly aware of the importance of education both as an institutional and as a discursive space. By institutional space I mean here the space schools occupied and created: the often imposing building, the space for public interaction – for girls often the first one outside the home. Schools were often centres of local literary and political activity, visited by national leaders and leading poets, and the classroom allowed a space for politicisation outside the colonial curriculum. Schools hosted the institutional figure of the teacher and headmaster, both important professional avenues for Hindi intellectuals. They also created, through the students, an important section of the modern Hindi reading public. But education was also important as a discursive space: it was a way in which ideas and perceptions about society, modernity, culture and the 'difference' between India and the west were spelt out.

Thus colonial intellectuals, in Hindi as elsewhere, invested classroom practices with a grand national(ist) agenda: 'national education' – one standard for all – was to lift Indians out of their backward state to a rank equal to that of the most advanced countries in the world. According to Hindi intellectuals, Hindi had an 'advantage' over English here as it was ideally placed to spread modern ideas *and* Indian cultural identity. The textbook especially came to be seen as a primary tool to instil this common 'national' identity and feelings of duty towards the motherland. Practically, too, for lack of other reading material for both teachers and students, textbooks were the only books available for Hindi-medium education. And since Hindi literati became almost solely responsible for the production of Hindi textbooks, it is their choice of language and of materials that we find in the textbooks.

In them we find the same ambiguity in the discourse of Hindi: Hindi was flaunted as language of mass education (and the antithesis of English) but the Hindi actually used in textbooks was the polite 'high' language of literary journals like *Sarasvati*, from which textbooks and anthologies drew substantial material. Thus 'tadbhava' words (words of Sanskrit origin but phonetically modified through the ages) were systematically replaced by Sanskrit loanwords (given in bold below) and 'foreign' (i e, Perso-Arabic) words avoided as much as possible. The result was a peculiar language whose cultural and caste markers appear just below the surface:

> **रात्रि** होते ही सब **पशु** और **पक्षी विश्राम** करते हैं। हमको भी **अधिक रात्रि** गए तक जागना **उचित** नहीं है **अन्यथा प्रातःकाल** उठने में **विलम्ब** होगा और इससे अगले दिन **कार्य** में **बाधा** पड़ेगा। इसलिए **रात्रि** को दस बजे से **पूर्व** ही सो रहो।
>
> As soon as **night** descends all **animals** and **birds rest**. It is not proper for us to stay awake **too long** into the **night** either, **lest** the next day we **delay** getting up **in the morning** and our **activity** is **impeded**. Therefore go to sleep **before** ten o'clock **at night**.[20]

> सरस्वती भी **धन्य** है जो उनके **मुखकमल** के **सम्पर्क** का **सुख अनुभव** करती हुई ऐसे महात्मा के **प्रसन्न गंभीर मानस** में **राजहंसी** सी **वास** करती है।
> अकेली गंगा है। लम्बी चौड़ी वासनाओं का **निवास** उस स्थान में नहीं। आकाश पाताल को एक करनेवाले विचारों का वहाँ **प्रवेश** नहीं होता।
> ब्राह्मण लोग हिन्दु जाति के अगुआ हैं। इसमें कुछ संदेह नहीं कि बहुत से ब्राह्मणों ने पढ़ना-लिखना छोड़ दिया है। परन्तु यह समय की गति है। उनका प्रभुत्व ज्यों का त्यों बना है।
>
> The goddess Sarasvati is **fortunate,** for she **dwells** like a **swan** in the blissful and **profound lake** of the mind of such great souls and experiences the joy of being in **contact** with their **lotus-like faces.**
> The Ganges is unique. It has no place for great desires or passions; tumultuous thoughts cannot **enter** here.
> Brahmins are the leaders of the Hindu community; undoubtedly many of them have stopped studying, but this is a consequence of the times. Their authority is undiminished.[21]

In textbooks this language acquired a peculiar stamp of authority. The ability to use and translate from such language 'into your own' became the hallmark of proficiency in Hindi and a shorthand for proficiency at court. Learning Hindi became an exercise in translation (examination papers say – even now – 'say in your own words'). This choice of language for education had several important implications, cultural, social and political. Did the forced exercise in translation required by Hindi textbooks and examinations mean that the language spoken at home was 'wrong' (P Agraval). For one thing, as Krishna Kumar has argued, the tendency toward syntactic complexity and Sanskritised vocabulary "strengthened the reproductive role of education. Only children of upper-caste background could feel at home in a school culture where the language was so restrictive."[22] The reproduction of cultural values and social relations embedded in language could be quite apparent, as the second passage shows.

As Veena Naregal has argued, this educational 'samskara' was significant not only for those who acquired it (placing them in a continuum with, and yet in a subordinate position to, English). It was even more significant for those who were deprived of it, despite all the declarations of universal access to education. For now the lack of education and of its visible markers in terms of dress, language and manner came to mean exclusion from the liberal project of the colonial state, placing the subject instead at the receiving end of

the state's idiom of force (Kaviraj). Lack of education thus virtually amounted to a lack of political rights. It also meant exclusion from the Indian public sphere and the need for intermediaries who would translate, as in the case of Baldev's letter, the idiom of the jati and of the state into something more local and accessible.

The success in spreading shuddh Hindi through education was therefore dense with important and discriminatory consequences, during the nationalist movement and after independence. As Krishna Kumar has remarked, Hindi education became a 'secret door' through which cultural nationalism entered the colonial system, but it also imposed a rigid linguistic and cultural ideal – the public self-representation – that was to survive in independent India.

V
The 'Other' Hindi

The reality of mass illiteracy alone is enough to raise serious questions regarding the impact of both normative and critical attitudes in the Hindi public sphere: the journals and textbooks we have been talking about were part of the experience of a relatively limited section of north Indian society. If English was the cultural and political language of a thin upper crust, shuddh Hindi was the language of another elite. Still, the question needs to be asked: What was the impact?

Even a cursory look at the *Catalogues of Publications* recording systematically publications registered from 1867 onwards offers some interesting insights. If we take the volume of publications in Hindi as an index and take into account indicators such as price and print-runs, we see that throughout the period until 1940 semi-oral genres of religious and secular nature such as 'bhajan', *Ramayana* compilations, seasonal songs, 'ghazal', versions of the *Alha* epic, 'qissa' and 'samgit' form the great majority of publications. This attests not only to the continuing popularity of oral forms in print, but also a use of print beyond the pale of the normative project and largely indifferent to new literary tastes.

So, while texts of the courtly and devotional Braj Bhasha literary culture were upheld as classics in expurgated students' editions, erotic songs in Braj Bhasha and various versions of Khari Boli circulated widely in the market-place for a few annas. Educational books were the fastest-expanding branch of Hindi publications but as late as 1935 educational titles amounted to less than one-fifth of those of popular songs and dramas. Among new literary works, only those of overt nationalist sentiments normally went through more than one print-run. The picture that emerges is one divided between a relatively small readership for new literary works and journals, a substantial proportion acquiring through textbooks the necessary linguistic and literary samskara, and an overwhelming majority reading religious or entertaining publications in non-standard Hindi.[23]

Besides, the popular market shows also a more direct kind of public intervention to address the public beyond that of the highly literate few: I am talking here of pamphlets (in prose or verse) printed directly by the author in order to comment on topical issues, a growing phenomenon in the 1920s and 1930s. The Sharda Act, and especially the Civil Disobedience movement of 1930, had popular playwrights and printers, as well as private citizens, pouring their own views into print in the form of nationalist bhajan, kajli, alha, samgit, etc, in huge numbers of titles and copies. This trend supports the well-known fact of increasing mass politicisation, but it also suggests an important point for the Hindi public sphere.

Nationalism, and especially nationalism in its non-parliamentary, expansive form, was the jellying factor that brought the different sections of society together. The fact that nationalist poems appeared in all levels of the Hindi press and in textbooks and were acclaimed at poetry-meetings, that nationalist short stories were published and distributed like pamphlets (e g, Premchand's *Samar-yatra*, 1930), that popular poets and playwrights produced their own versions of topical events, and that local poets published nationalist allegories at their own expense all produced an overlap that gave a mistaken impression of unity. Poets and writers really believed that they were the seers, the vanguard of the whole society; journals believed they were the expression of public opinion in its entirety; critics and scholars believed that, despite the unruly crowds, their project would extend to all; and even marginal subjects believed they were equally members of the public of svarajya.

But the overlap and the picture of unity – still present in nationalist historiography – starts to show cracks and tensions when we pay enough attention to the mechanisms of cultural transmission and to the tensions arising even within the Hindi literary sphere – tensions that have to do with the conflict between normative and critical attitudes, with conflicts of authority, with the structural divisions within the reading public and so on.

VI
Epilogue

What did they mean by public? In the course of the article I have tried to discuss the various uses of public and to problematise the 'they', too. For, if the concept of public – whether jantaa sarvasadharan or jati – suggested an open-endedness, a unity and a principle of general validity that were not there before, it awakened different responses in the Hindi literati who wrote and thought about it. For some the open-endedness reminded them first of all of their duty, which was to lay down general principles and norms that would be valid and should be followed by all, and then do their best to try and enforce them with their unofficial authority. What they lay down was an ideal, a positive self-representation of the jati, and everything was evaluated according to these criteria and termed either 'Indian' or 'un-Indian'. For others, public meant writing off old rules and beliefs and treading new paths: where to was often not clear, but they were guided by a great faith in the intrinsic value of the process.

In the case of Hindi language and literature, the normative attitude had a more limited but continuous impact and held crucial nodes of transmission (e g, education). The critical attitude had greater momentum, was very important for certain subjects, and at times seemed overpowering but was ultimately divided and institutionally 'weak'. The success of constitutional politics after 1937 buttressed the success of the normative view of Hindi. The space left for critical and popular voices was marginal, and decreased after the movement was over. There was, to be sure, critical space left in journals, in the literary sphere (and in pockets of radical politics), but the impact on the general population was, we have seen, pretty limited.

Hindi, which had the potential of becoming the new unifying language of a new, more popular and inclusive understanding of the public, failed to do so. The ostensibly neutral, normative language that prevailed was an exclusivist language which embedded hierarchical social and caste relations. Does this 'failure' of the language reflect a larger failure at social integration despite the attainment of political democracy and a certain amount of social change and mobility? Even in post-independence India we find that critical (subaltern) voices could not determine the co-ordinates of the public in Hindi: caste, economic relations, patriarchy, personal

authority remained, until recently, outside the purview of public.

Even within the literary sphere, the normative attitude of professors and textbooks undercut the critical (and political) potential of literature and the independent authority of writers: an Italian proverb says that at night all cats are grey: in the classroom, writers lost their distinctive colours. This may explain the apparent paradox of a very imaginative, very critical and often very political literature and conversely a culturally conservative language and an establishment endlessly feeding on talks of 'Bhartiya samskriti'.

Notes

1 Phaniswarnath Renu, *Maila Ancal* (*The soiled border*) Rajkamal, Delhi, 1954.

2 Juergen Habermas, 'The Public Sphere', *New German Critique*, 3 (1974) 49. See also his *The Structural Transformation of the Public Sphere*, Cambridge, Massachusetts, [illegible] (German edition 1962).

3 Mahavir Prasad Dvivedi, 'Deshvyapak bhasha', *Sarasvati*, November [illegible], also presidential address at XIII Hindi Sahitya Sammelan, Kanpur, 1923, quoted in *Sammelan Patrika*, X, 8-9 (1923):301.

4 Kalidas Kapur, *Sahitya-samalocna*, Allahabad, 1929 14

5 Padmasingh Sharma, presidential speech at VI UP Hindi Sahitya Sammelan, Moradabad, 1921, quoted in *Sammelan Patrika*, VIII, 6(1921).100.

6 "अधिकांश भक्त-कवियों का समग्र जीवन मथुरा से गोकुल तो जाने में समाप्त हो गया। बीच में उन्हीं की संकीर्णता की यमुना पड़ गई; कुछ किनारे पर रह गए, कुछ उसी में बह गये; बड़े परिश्रम से कोई पार भी गये तो व्रज से द्वारका तक पहुँच सके, संसार की सारी परिधि यहीं समाप्त हो गई।" [Most Bhakti poets spent their entire life going from Mathura to Gokul and the river (Yamuna) of their narrowness flowed in between some remained on its banks, some were washed away by the stream, and those who struggled hard and crossed it only reached Dwarka: here ended the whole expanse of the world for them'] Sumitranandan Pant, Introduction to *Pallav*, Delhi, 1963 (first edition 1926),9-18.

7 R Shukla, *Cintamani*, first part, Allahabad, 1939 227 Sagar Prasad Ray, 'Sahitya mein Lokruchi Tatha Yagdharma', *Chand*, XVII, pt 1, 1 (June 1939): 52

8 V Dalmia, *The Nationalisation of Hindu Traditions: Bharatendu Harishchandra and Nineteenth Century Banaras*, Delhi, 1997

9 Thanks to the backing of the Indian Press, one of the most prosperous publishing houses in the province with excellent contacts in the education department, Dvivedi could set up a stable and commercially viable literary journal and assemble a team of contributors, poets and translators

10 Under the name 'Sukavi Kimkar', *Sarasvati*, May 1922

11 Source *Statement of Newspapers and Periodicals Published in UP*, 1930, Oriental and India Office Library Collections (OIOLC), London.

12 See, e g, 'Seva-Dharma ka Adars', *Chand*, III, pt 2, 1-2, (May-Jane 1925), pp 3-13

13 See, e g, Zahur Bakhs, 'Maim Patit Kaise Hui', *Chand*, IV, pt 1, 3 (January 1926).

14 N Fraser, 'Rethinking the Public Sphere' in C Calhoun (ed), *Habermas and the Public Sphere*, Cambridge, Massachussets, 1992:119.

15 M M Malaviya, 'Rashtra ka Nirman', *Abhyuday* 1907 in P Malaviya (ed),*Malaviyaji ke Lekh*, Delhi, 1962:126, emphasis added

16 B V Pararkar, presidential address to the first editors' conference, XVI Hindi Sahitya Sammelan, Vrindavan 1925, quoted in *Sammelan Patrika*, XIII, 4-5 (1925):228-41

17 G S Vidyarthi, editorial, *Pratap*, January 11, 1915, in R Avasthi (ed), *Kranti ka Udghos*, Kanpur, 1987:103

18 S D Palival, 'Kaunsiloin Dvara Svarajya', *Visal Bharat*, February 1936, pp 449-52.

19 A summary of the statement presented at the first annual report of the Sabha is found in C R King, 'The Nagari Pracharini Sabha of Benares, 1893-1914', unpublished PhD thesis, Wisconsin (1974):316.

20 Bhavaniprasad, *Aryabhasha Pathavali*, pt 1, Bijnor, 1927:34.

21 Examination paper for the Hindi 'prathama' examination by Hindi Sahitya Sammelan, Allahabad, samvat 1982 (1915):7

22 K Kumar, *The Political Agenda of Education*, New Delhi, 1991:142.

23 *Statements of Particulars Regarding Books and Periodicals Published in the United Provinces*, compiled in the Office of the Director of Public Instruction, for the years 1915, 1920, 1925, 1930, 1935, 1940, OIOLC

Is Import Liberalisation Hurting Domestic Industry and Employment?

R G Nambiar
B L Mungekar
G A Tadas

Theory says that freer trade encourages economic activity and hence raises production and employment. Is this true in the Indian case? This article examines statistical evidence to answer this question. It finds that since liberalisation, trade has shrunk India's manufacturing base both in terms of value addition and employment. The intermediate and capital goods industries have suffered more. Manufacturing is also shifting from high-skilled and capital intensive production to low-skilled and labour intensive production. Existing wage disparity between skilled and unskilled workers has worsened.

INDIAN corporate leaders have been sounding alarm bells over the alleged harmful effects of international competition. 'India for Indians first', 'we should have opened the Indian economy for Indian businessmen and then invited foreigners', 'strengthen Indian industry first, and then invite MNCs' are some of the typical comments appearing in dailies and weeklies. Many contend that they do not have a 'level playing field'. International players have superior technology and financial muscle; and they will destroy Indian manufacturing industry. India may eventually become a nation of farm products and services. Is this reasoning correct? Is international trade responsible for crippling India's manufacturing industry? What about other factors such as a decline in the share of manufactured products in consumer spending, presence of cyclical conditions both at home and abroad and changes in exchange rates. The choice of appropriate policies depends crucially on our ability to evaluate the relative impacts of these various factors. A full investigation of all these factors is not attempted here. The rate and pattern of India's industrial growth has been a subject of debate [Ahluwalia 1991; Chandrasekhar 1988; Kelkar and Kumar 1990; Nagaraj 1990; Nayyar 1994; Neogi and Ghosh 1998]. We decided to examine some of the more important empirical evidence that has a bearing on the trade-industry relationship. To that proximate goal, we began to assemble relevant source materials. Based on our initial exploration, some preliminary findings were reported in this weekly [Nambiar and Todas 1994]. However, this enquiry could not be extended to the 1990s because of paucity of relevant data. Having secured that information we now attempt a longer historical review.

The evidence, it is argued below, further confirms our earlier observation that trade is the root cause for crippling domestic industries. The worst hit is the capital goods or the machine-building industry. This industry has a crucial role to play in the industrialisation of any economy, and the speed and nature of its development are particularly important in an economy such as India. Viewed from this angle, the erosion of capital goods industry marks the erosion of India's industrial base.

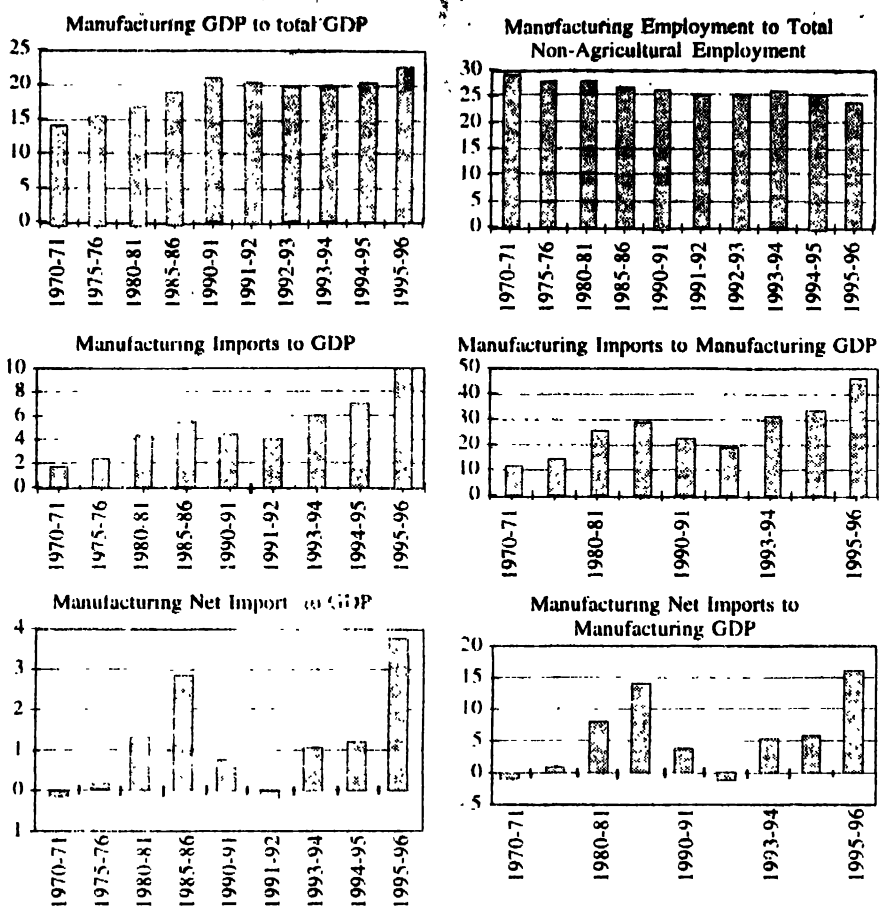
The plan of the article is as follows. In Section I we review some key macro-economic data to find whether there is a prima facie case of trade forcing a structural change in the Indian industry. Then in Section II, we provide the methodological framework and the data sources for quantifying the effects of trade. In Section III, we present our empirical results. Some evidence on the role of trade in wage inequalities is presented in Section IV. The last section summarises our findings.

I
Key Macro-Economic Indicators

The chart shows the periodic movements in key macro-economic indicators. In broad terms, the concern over trade competition originates from the confluence of several trends shown in the chart. First, observe the movements of the share of manufacturing GDP to total GDP. The indications are that the share of manufacturing GDP has remained almost constant over the past five years: 14 per cent in 1970-71 and 21 per cent in 1990-91. Since then there are no signs of recovery, except in 1995-96. Second, the relative decline of manufacturing sector is even more pronounced when viewed from the employment side than from the output side. Thus, the share of manufacturing in total non-agricultural employment fell from 29 per cent in 1970-71 to 24 per cent in 1995-96. The poor and declining labour absorption capacity of the Indian industry in general and of the manufacturing sector in parti-cular has received much attention in the literature [Ahluwalia 1991; Nagaraj 1994; World Bank 1989; Lucas 1988]. Third, manufactured imports record consistent rise. Its share in total GDP has moved up from 2 per cent in 1970-71 to 10 per cent in 1995-96. Instead, if one looks at the weight of manufacturing imports in manufacturing GDP, then the rise is from 13 to 45 per cent. Fourth, the rising import intensity of domestic manufacturing has had strong implications for India's trade balance. This can be seen from the net trade to GDP ratio. Thus, the proportion of net manufactured imports to total GDP (manufactured imports less manufactured exports) moved up from (-)0.1 per cent in 1970-71 to 3.7 per cent in 1995-96. This rise becomes more pronounced if we look at manufacturing imports as a proportion of manufacturing GDP. This latter indicator is seen to have moved up from (-)0.5 per cent in 1970-71 to 16.7 per cent in 1995-96.

Some more details on shifts in the structure of India's manufactures trade would be in order. The data is based on CSO (various years). Manufacturing sectors are classified by end-use categories (Appendix Table). From 1978-79 to 1989-90, India's manufacturing export basket contained nearly 50 per cent of intermediate and capital goods. Since 1991-92, however, consumer goods exports predominated India's manufactures exports, the proportion of which increased from 50.6 per cent in 1989-90 to 72.5 per cent in 1996-97 (Table 1). The share of intermediate goods in total manufacturing exports, on the other hand, declined from 38.5 per cent in 1989-90 to 12.6 per cent in 1996-97. On the import side, what one notices is growing predominance of capital goods. The proportion of capital goods in total manufacturing imports increased from 36.6 per cent in 1978-79 to a high of 62 per cent in 1996-97. Looking at another way of classification based

CHART. MANUFACTURING GDP, EMPLOYMENT, TRADE IN TOTAL GDP/EMPLOYMENT (PER CENT)



on production characteristics, it is of interest to note that the proportion of hi-tech and labour intensive manufactures in total manufacturing exports tended to increase between 1978-79 and 1996-97. The share of hi-tech exports increased from 13 per cent in 1978-79 to 31 per cent in 1991-92, which, however, fell to 25 per cent in 1996-97. The proportion of labour intensive exports in total manufactures exports increased from 9 per cent in 1978-79 to 13 per cent in 1991-92 and further to 34 per cent in 1996-97. The weightage of resource intensive exports in total manufacturing exports consequently declined from 68 per cent in 1978-79 to 37 per cent in 1996-97. Capital intensive exports also suffered a net loss in their relative weightage in total manufacturing exports between 1978-79 and 1996-97. On the import side, hi-tech imports witnessed significant shifts – their share in total manufacturing imports increased from 26 per cent in 1978-79 to 61 per cent in 1996-97.

Admittedly, these macro-economic trends could only furnish rough indicators of patterns of structural shifts in India's trade and industry. The key question is whether one can relate these various trends to each other, and in a systematic way. In what follows an attempt is made to correlate some of these shifts in certain quantitative terms.

II
Method, Data and Reference Period

Methodology: A separation of the effects on the economy of foreign trade and domestic forces begins with the identity:

$$P = U + X - M \qquad ...(1)$$

where P stands for production of goods; U, domestic use (consumption, government purchases, and investment including inventories); X, exports; and M, imports.

Using this identity and data on total production, exports and imports, any change in production can be decomposed into change due to domestic use and change due to foreign trade balance. But, to estimate the impact of a change in one of the right hand side variables, say exports or imports, on production of individual domestic industries, the induced effect of that change must be estimated. For instance, when a pair of footwear is exported, the induced effect of that change can be expected on a wide variety of other industries that supply inputs – leather, rubber, plastics, nails, glue, thread, fuel, electricity, transport, and so on. Similarly, when an import, say a machine replaces a domestic product, it reduces not only the activity of the concerned industry but also the activities of all these industries which supply inputs – steel, aluminium, copper, chemicals and so forth. In some cases, the induced effect even changes the allocation of total value added between domestic and foreign sources. For instance, an increase in the exports of machine tools will require an increase in imports of special steel as raw material, so that the net effect on total domestic production is less than the value of exports A complete accounting of the

TABLE 1 DISTRIBUTION OF MANUFACTURING EXPORTS AND IMPORTS

(Per cent)

Industry	Exports					Imports				
	1978-79	1983-84	1989-90	1991-92	1996-97	1978-79	1983-84	1989-90	1991-92	1996-97
End-use classification										
Consumer goods	55.50	50.69	50.64	61.08	72.48	23.43	20.24	21.86	8.40	10.87
Intermediate goods	25.66	34.49	38.50	20.48	12.58	39.92	45.06	21.89	32.36	27.49
Capital goods	18.84	14.82	10.86	18.45	14.94	36.65	34.70	56.25	59.24	61.64
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Classification by production characteristics										
Resource intensive	67.65	72.38	71.74	47.37	36.66	41.28	38.32	12.44	13.94	16.25
Hi tech Intensive	13.29	19.31	16.71	31.22	24.81	25.82	42.98	57.91	59.20	60.98
Capital Intensive	10.00	3.59	5.70	8.64	4.24	24.40	8.23	13.41	22.93	16.31
Labour Intensive	9.05	4.73	5.85	12.76	34.29	8.50	10.47	16.23	3.94	6.47
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Note: See Appendix Table for details on industry groupings.

impact of trade should therefore incorporate both the direct and indirect effects.

In order to capture this total effect, we use input-output table for India. As a first step, we calculate labour/output ratio (i e, labour requirements per one rupee worth of output) for each sector. Then, the direct and indirect labour requirements for domestic use, exports and imports are separately derived as follows:

$$LU = K\,(I - A)^{-1}\,U \qquad ...(2)$$

$$LE = K\,(I - A)^{-1}\,E \qquad ...(3)$$

$$LM = K\,(I - A)^{-1}\,M \qquad ...(4)$$

where K is a row vector of labour coefficients, $(I - A)^{-1}$ is the Leontief inverse, E is a column vector of exports, M is a column vector of imports, and U is a column vector of domestic use. LE is the direct and indirect employment associated with exports, LM is the employment displaced by the competing imports; and LU is the employment attributable to domestic use. In a similar fashion, estimates are made of the total value added in each industry that could be related to domestic use, exports, and imports.

Within the framework discussed above, estimates of the effect on value added and employment in the manufacturing sector that is attributable to trade and domestic use are made for 1978-79, 1983-84, 1989-90, 1991-92 and 1996-97. All values are at 1983-84 prices.

Data sources: The data needed for the study relate mainly to two things: (a) input-output transaction table which will give data relating to intermediate consumption, final consumption, gross output and value added, (b) employment data for calculating sectorwise labour-output ratios.

(a) Input-output tables for India are available for 1978-79, 1983-84, 1989-90 and 1991-92. Using these tables the estimates of net effects of trade on value added and employment are worked out for manufacturing sectors of the input-output transaction matrix. All the tables except for 1991-92 are drawn from the data base of Central Statistical Organisation [CSO various years]. The one for 1991-92 is supplied by the Technical Note to the Eighth Five-Year Plan, Perspective Planning Division, Planning Commission, and differ somewhat from the CSO table as far as the sectoral classification is concerned. At the time of writing no input-output table was available for a more recent year, say 1995-96, or 1996-97. At the same time, we wanted to include a more recent year to evaluate the impact of reforms. That meant reworking especially the final demand vector for a more recent year. Instead, we have used the Technical Note to the Eighth Five-Year Plan which gives sectorwise projections of final demand for 1996-97. Certainly, this error of using a projected data would be reflected here. But we doubt that the error component is large enough to alter the main findings.

(b) Employment data for ther manufacturing sector is taken from the *Annual Survey of Industries*, CSO; for agriculture from the *Census of India* for mining from Statistical Abstract of India, CSO; and for the service sector from Economic Survey, Ministry of Finance.

Reference Period: The reference period for the analysis is the period from the late 1970s to the year 1996-97 for which data was readily at hand. The period appears to be the most relevant sample for investigating the alleged bias of trade against native industry because this is roughly the time when India's policy-makers began to shift domestic economy from a highly regulated, inward-oriented regime to an open, outward-oriented regime. Initial steps in this direction were taken by both the Janata government (1977-80), and by the Congress government (1980-84). But it was from late 1984 that substantial changes started. Propelling these changes were two major campaigns. The first campaign started in 1984 when the late Rajiv Gandhi came to power. He pushed a series of domestic economic reforms – exemption of certain industries from MRTP system and raising of investment threshold for others, broadbanding of industrial licences, etc. The second campaign was initiated by P V Narasimha Rao in 1991, who pushed the reforms to the external sector. This latter campaign continues still as a defining feature of modern Indian economic policy. Now, given these radical changes in the Indian economy, enough experience has already accumulated to make it possible to assess the relative roles of trade and other factors in structural shifts in Indian industry.

Assumptions/Limitations: The following assumptions will be maintained throughout the article.

(1) The analysis assumes no change in input-output requirements over time and no substitution possibilities among inputs. This assumption is maintained because the input-output transaction matrix of 1983-84 is used for calculating the direct and indirect requirements for 1978-79, 1983-84 and 1988-89, and the matrix of 1991-92 is used for making estimates of both that year as well as 1996-97.

(2) It assumes that final demand always substitutes between particular imports and output of domestic industry which manufactures seemingly similar products rather than products of some other industry.

(3) It allows for no differences in productivity growth between exports and domestic use.

(4) This is an exercise with *ex post* data rather than a simulation with a full scale behavioural model. That is to say, these

TABLE 2: DISTRIBUTION OF VALUE ADDED AND EMPLOYMENT IN INDIAN MANUFACTURING

Impact as per	1978-79	1983-84	1989-90	1991-92	1996-97
Value added at 1983-84 prices					
(Rs in million)	243229.3	303968.5	528407 0	916022 3	804805 8
Foreign trade	739.5	-11283.7	–29324.7	–150689.8	–48431.4
Exports	37515.9	30935.4	72295.0	129201.6	236681.3
Imports	36776.4	42219.1	101619.7	279891 4	285112 7
Domestic use	242489.8	315252.2	557731.7	1066710 0	853237.1
Employment (number in million)	14 903	10.198	7.252	4.234	2.881
Foreign trade	0.306	–0.277	–0 370	–0.100	–0.120
Exports	2.146	1.015	0 786	0.468	0.591
Imports	1.840	1.292	1.156	0.568	0 471
Domestic use	14.597	10 475	7.622	4.334	2 760
Percentage due to exports					
Value added	15.42	10.18	13 68	14 10	29 40
Employment	14.39	9.95	8.89	11 00	20 00
Percentage due to imports					
Value added	–15.12	-13.89	-19.23	–22 56	–35 42
Employment	-12.35	–12 67	-11 14	-13 42	-16.00

TABLE 3. DISTRIBUTION OF VALUE ADDED AND EMPLOYMENT BY END-USE CLASSIFICATION

(*Per cent*)

Category	Valued Added					Employment				
	1978-79	1983-84	1989-90	1991-92	1996-97	1978-79	1983-84	1989-90	1991-92	1996 97
Consumer goods	52	55	61	69	77	62	64	66	86	88
Intermediate goods	21	18	16	8	6	15	14	18	5	5
Capital goods	27	27	23	23	16	23	22	16	8	7

estimates of the 'contributions' of each component, which in a definitional sense can be decomposed into exports, imports and domestic use, are not estimates of causality. It neither explains why the configurations occurred, nor accounts for possible behavioural interactions among endogenous variables.

Subject to several of these assumptions and their limitation, this exercise is a first step in providing an indication of the order of magnitude of the effects of trade *vis-a-vis* domestic use on value added and employment.

III
Data Analysis

The employment and value added due to trade and domestic use for manufacturing industries as a whole are displayed in Table 2. In 1978-79, value added related to manufacturing exports was 15.42 per cent of overall value added in manufacturing, while production of these goods at home would have raised value added in manufacturing by 15.12 per cent. The net value added was 0.30 per cent (Rs 740 million). In 1996-97, however, it was negative. Value added related to manufacturing export was 29.4 per cent of the overall value added in manufacturing, while the production of these goods at home would have raised value added by 35.4 per cent. Thus, for the period 1978-79 to 1996-97, trade cut value added in manufacturing by Rs 48,431 million, i e, roughly by 6 per cent. Trade also squeezed manufacturing employment. In 1978-79, trade provided a net addition of 3.1 lakh jobs in manufacturing. On the contrary, in the subsequent periods trade either rendered many jobless or, if at all, created fewer jobs.

A prevailing myth is that trade has aided industrial recovery in India. The evidence presented in the table shows that this recovery has been largely propelled by domestic demand. Thus, for the period 1978-79 to 1989-90, the net increase in manufacturing value added is 117 per cent (Rs 2,85,178 million). Decomposing this change into that attributable to trade and domestic use, we get (-)13 per cent (-)Rs 30,064 million attributable to trade, and 130 per cent (Rs 3,15,242 million) for domestic use. Alternatively, if we take the whole period, 1978-79 to 1996-97, the net increase in manufacturing value added is 230 per cent (Rs 5,61,575 million). This change when decomposed into that attributable to trade and domestic use, gives (-)22 per cent or (-)Rs 49,171 million, and 252 per cent (Rs 6,10,746 million) respectively.

The discussion so far has concentrated on manufacturing industry as a whole. It will be useful to look at each sector of manufacturing industry. To this end, we consider sectorwise calculations and some summary categories have been drawn from this exercise. One such summary category rests on end-use classification (Appendix Table). Based on this, Table 3 displays percentage shares of the three broad manufacturing categories in total manufacturing value added and employment (i e, total of both direct and indirect effects). The manufacturing activity in India has today come to be dominated by consumer goods. Between 1978-79 and 1996-97, the weight of this group is seen to have increased from 52 per cent to 77 per cent. The share of both intermediate and capital goods is seen to have dropped from 21 to 6 per cent and from 27 to 16 per cent, respectively. Second, the employment shift has also proceeded in the same fashion with the consumer goods industry emerging as the biggest employer providing 88 per cent of total manufacturing employment in 1996-97.

Table 4 breaks down the striking divergence of consumer goods from the rest of manufacturing into the parts accounted for by foreign trade and domestic use. Two important points emerge from the table. On the one hand, trade balance raised both value added and employment in consumer goods industry. Thus, between 1978-79 and 1996-97, value added in consumer goods industry recorded 390 per cent rise (Rs 4,95,488 million). Of this net increase, one-fourth (Rs 1,25,680 million) is attributable to trade, and the balance (Rs 3,69,808 million) attribut-

TABLE 5: DISTRIBUTION OF VALUE ADDED AND EMPLOYMENT BY PRODUCTION CHARACTERISTICS OF INDUSTRIES

(Per cent)

Industry Type	Value Added					Employment				
	1978-79	1983-84	1989-90	1991-92	1996-97	1978-79	1983-84	1989-90	1991-92	1996-97
Resource intensive	49	49	52	62	57	60	61	62	84	78
Hi-tech	27	26	25	28	27	20	20	16	12	13
Capital intensive	15	14	12	5	2	10	9	12	2	2
Labour intensive	9	11	11	5	14	10	10	10	2	7

TABLE 4: DISTRIBUTION OF VALUE ADDED AND EMPLOYMENT BY END-USE CLASSIFICATION

Category	Value Added at 1983-84 Prices (Rs Million)					Employment (Number in Million)				
	1978-79	1983-84	1989-90	1991-92	1996-97	1978-79	1983-84	1989-90	1991-92	1996-97
Consumer goods										
Foreign trade	11793.8	6814.9	24844.8	52604.0	137474.0	0.644	0.111	0.136	0.225	0.386
Domestic use	115209.1	159450.7	295332.8	595560.8	485014.0	8.657	6.408	4.654	3.378	2.143
Total	127002.9	166265.7	320177.9	648164.0	622490.0	9.302	6.518	4.791	3.603	2.529
Intermediate goods										
Foreign trade	–4005.3	-5870.7	-7518.4	–49253.0	–52998.0	–0.015	–0.074	0.098	–0.112	–0.050
Domestic use	55469.0	61822.6	90482.3	106952.0	99647.0	2.254	1.506	1.435	0.342	0.182
Total	51463.6	55952.0	82963.7	57699.0	46649.0	2.239	1.432	1.338	0.231	0.132
Capital goods										
Foreign trade	–7049.0	-12227.8	–46650.1	–154042.0	–132907.0	–0.323	–0.313	–0.408	–0.243	–0.215
Domestic use	71812.7	93978.9	171915.5	364199.0	268574.0	3.685	2.560	1.531	0.612	0.435
Total	64763.4	81751.2	125266.4	210157.0	135667.0	3.362	2.247	1.123	0.369	0.220
Percentage due to trade and domestic use										
Consumer goods										
Foreign trade	9	5	8	8	22	7	2	3	6	15
Domestic use	91	95	92	92	78	93	98	97	94	85
Intermediate goods										
Foreign trade	–8	–10	–9	–85	–114	–1	–6	–7	–48	–38
Domestic use	108	110	109	1085	214	101	106	107	148	138
Capital goods										
Foreign trade	-11	-15	–37	–73	–98	-19	–14	–36	–66	–98
Domestic use	111	115	137	173	198	110	114	136	166	198

able to domestic use. Conversely, trade reversed the growth path of both intermediate and capital goods. To illustrate, the value added in the capital goods industry increased by 110 per cent (Rs 70,904 million) between 1978-79 and 1996-97. This net value is obtained by adding Rs 1,96,761 million (denoting an increase of 274 per cent) attributable to domestic use and (-)Rs 1,25,857 million (a decline by 164 per cent) attributable to trade balance. What emerges clearly is that trade set in motion a restructuring process by fuelling consumer goods production, and freezing the production of both capital and intermediate goods. This is worrisome because the capital goods or the machine-building industry has a crucial role to play in the industrialisation of any economy, and the speed and nature of its development are particularly important in an economy such as India. A productive system is a set of articulated elements, whose coherence results from the subordination of each one of the disparate parts to the logic of the whole. This coherence can come from the logic of the market place, or from planning. Generally, both these forms of co-ordination are combined in all modern capitalist economies.

While it is undoubtedly possible to formulate more detailed classifications, two broad avenues can be considered. The first is aggregation according to the nature of production process, and the second is according to skill intensity.

Production process: In trade literature, it is customary to classify goods into three groups: goods requiring relatively intensive use of natural resources (called Ricardo goods), goods that require high proportion of research and development (high-tech goods), and goods that use relatively standardised production technologies (called Heckscher-Ohlin goods). For our purpose here, we adopt the resource intensive and high-technology groupings, and divide the Heckscher-Ohlin group according to relative capital-labour ratios into capital and labour intensive categories (Appendix Table).

The processwise grouping of Indian industries exhibits features (Tables 5 and 6) which are similar to the end-use classification. A major structural change that is visible is the long-run shift away from the production of capital intensive goods towards the production of resource intensive goods. Thus, in the period from 1978-79 to 1996-97, the weight of capital intensive industries in both manufacturing value added and employment has dropped (Table 5). Further, the share of hi-tech industries in manufacturing value added stagnated during the period; in fact, in manufacturing employment its share has considerably declined. Only in the case of resource intensive industries the share is constantly seen rising both in terms of manufacturing value added and employment. In the case of labour intensive industries, the share in value added increased, while the share in employment declined.

Thus, value added and employment gained by trade are mainly those of resource intensive industries, whereas in the rest of manufacturing, trade balance has cut both value added and employment (Table 6). Imports are responsible for about 36 per cent of the output loss in the hi-tech industry and about 163 per cent of output loss in the capital intensive industries between 1978-79 and 1996-97. Against these losses, the benefits rendered

TABLE 7: DISTRIBUTION OF VALUE ADDED AND EMPLOYMENT BY SKILL INTENSITY

(Per cent)

Category	Value Added					Employment				
	1978-79	1983-84	1988-89	1991-92	1996-97	1978-79	1983-84	1988-89	1990-91	1996-97
High skill	19	20	19	17	12	11	13	15	6	6
Medium skill	45	39	46	37	28	52	44	38	22	12
Low skill	36	41	35	46	60	37	43	47	72	82

TABLE 6: DISTRIBUTION OF VALUE ADDED AND EMPLOYMENT BY PRODUCTION CHARACTERISTICS OF INDUSTRIES

Category	Value Added at 1983-84 Prices (Rs Million)					Employment (Number in Million)				
	1978-79	1983-84	1989-90	1991-92	1996-97	1978-79	1983-84	1989-90	1991-92	1996-97
Resource intensive industries										
Foreign trade	9959.0	7600.3	33934.1	17421.0	40332.0	0.699	0.215	0.331	0.187	0.237
Domestic use	112006.2	136705.7	237454.2	544239.0	416116.0	8.072	6.029	3.808	3.376	2.002
Total	121965.2	144306.0	271388.4	561660.0	456448.0	8.771	6.245	4.140	3.563	2.239
Hi-tech industries										
Foreign trade	–4407.9	11017.8	–37423.0	–105679.0	–92540.0	–0.186	–0.269	–0.297	–0.189	–0.143
Domestic use	68309.7	96536.6	180069.4	376672.0	310995.0	3.034	2.250	1.421	0.685	0.510
Total	63901.8	85518.1	142645.3	270993.0	218455.0	2.848	1.981	1.124	0.499	0.367
Capital intensive industries										
Foreign trade	–4517.3	3512.8	–14340.6	-71343.0	–52144.0	-0.168	–0.084	–0.173	-0.121	-0.077
Domestic use	40093.5	45123.7	75914.0	114553.0	69279.0	1.618	1.012	1.039	0.217	0.146
Total	35576.0	41610.9	61573.9	43210.0	17135.0	1.450	0.928	0.867	0.096	0.069
Labour intensive industries										
Foreign trade	–294.5	–4352.9	–11493.9	-8915.0	55924.0	–0.038	–0.138	–0.230	0.017	0.102
Domestic use	22080.6	36856.3	64294.0	31243.0	56842.0	1.872	1.182	1.351	0.058	0.103
Total	21786.0	32533.5	52800.2	40158.0	112766.0	1.832	1.044	1.121	0.075	0.205
Percentage due to trade and domestic use										
Resource intensive										
Foreign trade	8	5	13	3	9	8	3	8	5	14
Domestic use	92	95	87	97	91	92	97	92	95	86
Hi-tech intensive										
Foreign trade	–7	–13	–26	–39	–42	–7	14	-26	-37	–52
Domestic use	107	113	126	139	142	107	114	126	137	152
Capital intensive										
Foreign trade	-13	–18	-23	–165	-304	–12	–9	20	-120	–65
Domestic use	113	108	123	265	404	112	109	120	220	165
Labour intensive										
Foreign trade	–1	–13	–22	22	49	–2	–13	–21	23	50
Domestic use	101	112	122	78	51	102	113	121	77	50

by trade are a marginal gain of 9 per cent in the value added of resource intensive industries, thanks to the powerful offsetting force of domestic demand. Thus, in the case of hi-tech industries, while trade lowered output by 113 per cent between 1978-79 and 1996-97, domestic use lifted output by 355 per cent; and so the net effect was a 242 per cent rise in output. Again, in the case of capital intensive industries, the negative effect of trade was more than offset by positive effects of domestic use Thus, the patterns associated with the performance of Indian manufacturing industries are all present in the data on trade and domestic use – considerably more rapid gains in resource intensive industries, a relatively slower growth in all major process and end-use categories, particularly hi-tech and capital intensive industries.

Skill-intensity: We classify the manufacturing sectors of the input-output table into three broad groups: (a) high skill-intensive sectors, (b) medium skill-intensive sectors, and (c) low-skill intensive sectors. Our procedure for making this classification can be illustrated as follows. *The Annual Survey of Industries* (ASI) supplies information pertaining to number of workers, and total persons engaged in each industry at 3- and 4-digit industrial classification. The term 'workers' as per ASI definition includes all persons employed in the production process, i e, persons employed in any manufacturing process or in cleaning any part of the machinery or in any other kind of work incidental to manufacturing process. The production process workers are therefore taken here as a proxy for unskilled labour employed. There is no separate heading for skilled labour. All that the ASI gives is 'total persons engaged', which includes besides workers, all administrative, executive, technical, clerical and sales workers. Therefore, we subtracted the category 'workers' from the category 'total persons engaged' to obtain the managerial and technical staff employed in each of the industry. This latter figure is taken as the nearest proxy for skilled labour. Using this pairwise data, the ratio of skilled to unskilled for input-output sectors were computed. This ratio ranged from 0.74 in electronics to 0.09 in jute textiles. In the next step we used a 0.20 point frequency range to classify the sectors into high, medium and low skill-intensive sectors. Accordingly, sectors with a skill-intensity ratio in the range of 0.74 to 0.54 were categorised as high skill-intensive sectors; from 0.33 to 0.53 as medium skill-intensive sectors; and from 0.33 and below that as low skill-intensive sectors. The classification is intended to be illustrative. One could adopt more rigorous standards of classification (Appendix Table).

What does this skillwise classification tell us? Typically, the change that is visible is the long-run structural shift away from the production of high skill-intensive goods to production of low skill-intensive products. This can be seen from the figures arranged in Table 7. Notice for instance the rise in the share of low skilled segment in both value added and employment – from 36 per cent to 60 per cent for value added between 1978-79 and 1996-97, and from 37 to 82 per cent for employment – and a corresponding fall in the shares of both high skill-intensive and medium skill-intensive segments of industry.

Again, Table 8 breaks down the total change into the parts accounted for by foreign trade and domestic use. It may be noted that output and employment gained by trade are all in low skill-intensive sectors, whereas in both high skill-intensive and medium skill-intensive sectors trade diminished both output and employment.

IV
Trade and Wages

What effect has freer trade had on the gap between skilled and unskilled workers' pay? Going by the theoretical construct, known as Stolper-Samuelson theo-

TABLE 9: AVERAGE ANNUAL WAGE DIFFERENTIAL AT 1983-84 PRICES

(Rupees)

Year	All Industries		Industries by Skill Intensity				
	Production Workers	No-Production Workers	High Skill	Moderate Skill	Semi Skill	Unskilled	All
1980-81	7178	13751	13475	10125	7174	7472	7793
1984-85	13511	26562	15562	13591	10936	9152	12068
1991-92	9122	16726	17442	13170	8992	9713	11567
1992-93	8504	17212	17880	15155	9258	9367	12309

TABLE 8: DISTRIBUTION OF VALUE ADDED AND EMPLOYMENT BY SKILL INTENSITIES OF INDUSTRIES

Category	Value Added at 1983-84 Prices (Rs Million)					Employment (Numbers in Million)				
	1978-79	1983-84	1989-90	1991-92	1996-97	1978-79	1983-84	1989-90	1991-92	1996-97
High skill										
Foreign trade	–4627.0	9837.5	–31508.8	–111446	–110083	–0.189	–0.225	–0.319	–0.196	–0.173
Domestic use	50044.0	71879.8	133659.8	266742	204882	1.820	1.494	1.378	0.449	0.318
Total	45417.0	62042.3	102151.0	155296	94499	1.631	1.269	1.050	0.254	0.145
Medium skill										
Foreign trade	–4110.8	–11533.5	–15064.9	–60194	–1502	–0.010	–0.253	–0.312	–0.104	0.044
Domestic use	114761.0	129762.2	258196.5	392015	237244	7.645	4.756	3.069	1.049	0.644
Total	110650.2	117228.6	243131.6	331821	235742	7.635	4.503	2.757	0.946	0.689
Low skill										
Foreign trade	9477.7	10027.3	17269.0	21548	62085	0.546	0.242	0.290	0.201	0.253
Domestic use	77684 4	114610.2	163875.2	407052	412882	5.001	4.089	3.625	2.834	1.851
Total	87162.1	124637.5	18[illegible]144.2	428600	474967	5.541	4.331	3.915	3.035	2.104
Percentage due to trade and domestic use										
High skill										
Foreign trade	–10	–16	–30	–72	–116	–11	–18	–30	–76	–119
Domestic use	110	116	130	172	216	111	118	130	176	219
Medium skill										
Foreign trade	–4	–9	–6	–18	–1	-	–6	–11	–11	6
Domestic use	104	109	106	118	101	100	106	111	111	99
Low skill										
Foreign trade	11	8	10	5	13	10	6	7	4	12
Domestic use	89	92	90	95	87	90	94	93	93	88

rem [Stolper and Samuelson 1941], one should expect free trade to reduce the wage gap. Why? The argument is simple. India has plenty of unskilled labour. Therefore, India's exports will be more intensive in the use of unskilled labour. Liberal trade causes exports of these unskilled labour-intensive products to rise. Hence, wages of unskilled labour will have a tendency to rise, and at the same time wages of skilled labour will have a tendency to fall. The opposite is predicted for rich countries whose abundant factor is skilled labour. In short, the theory predicts that whatever sort of labour is the most abundant in the country before liberalisation, is the one that prospers the most as a result of trade.

The reality however rebels against this neat geometry. Several studies of individual countries and regions have shown that trade has in fact widened the wage gap, both in poor as well as rich countries. For instance, in Chile, Columbia, Costa Rica and Mexico, tariff rates have been brought down from 45 per cent in 1985 to 13 per cent in the recent years; nonetheless, wage disparities are noticed to be increasing [Robins 1996]. Similarly, evidence of increasing pay differentials between skilled and unskilled workers in Thailand and Philippines are reported. What makes these findings intriguing is that they all, besides refuting Stolper-Samuelson theorem, tend to say that trade hurts the poor more than the rich.

What do the available facts tell us about the Indian experience? To test this hypothesis, we have worked out average yearly wages for skilled and unskilled workers in India for the period 1980-81 to 1992-93. The data arranged in Table 9 highlight two points. First, unskilled workers have generally tended to receive half the pay of that for skilled workers. Second, wage differentials between the skilled and unskilled have in fact tended to widen, but of course marginally. These results are further confirmed by the patterns in wage disparities across sectors grouped according to revealed skill intensity. This is shown in Table 10. Thus, as we move from low skill-intensive sectors to high skill-intensive sectors, one finds the wage levels rising, almost doubling. Thus, one may say that the Indian experience in regard to the effect of freer trade on wages is not supportive of Stolper-Samuelson theorem; on the contrary, the available facts tell us that freer trade has, if at all, benefited skilled labour more than unskilled labour. These results are indeed intriguing given the fact that the net effect of trade has been to increase the weight of value added in

Appendix Table: Classification Scheme for Manufacturing Sector Input-Output Tables – 1983-84 and 1991-92

A: End Use Classification

1983-84

Consumer Goods (13)
12 Sugar
13 Food products
14 Beverages
15 Tobacco products
16 Cotton textiles
17 Wool, silk, synthetic textiles
19 Textile products
21 Furniture and fixtures
23 Printing and publishing
24 Leather and leather products
25 Plastic and rubber products
43 Other transport equipment
44 Miscellaneous manufacturing
Intermediate Goods (12)
18 Jute, hemp textiles
20 Wood products excluding furniture
22 Paper and paper products
26 Petroleum products
27 Coal, tar products
28 Inorganic heavy chemicals
29 Organic heavy chemicals
30 Fertilisers
31 Paints and varnishes
32 Pesticides and drugs
33 Cement
34 Non-metallic mineral products
Capital Goods (8)
35 Iron and steel
36 Other basic metal industry
37 Metal products
38 Agricultural machinery
39 Machinery for food and textiles
40 Other machinery
41 Electrical and electronic machinery
42 Railway equipment

1991-92

Consumer Goods (13)
20 Sugar
21 Khandsari boora
22 Hydrogenated oil
23 Other food and beverage
24 Cotton textiles
25 Woollen textiles
26 Art silk and synthetic fibre
28 Other textiles
31 Leather and leather products
32 Rubber products
33 Plastic products
51 Motor vehicles
53 Other manufacturing
Intermediate Goods (11)
27 Jute, hemp, mesta textiles
29 Wood and wood products
30 Paper and paper products
34 Petroleum products
35 Coal tar products
36 Fertilisers
37 Pesticides
38 Synthetic fibre and resin
39 Other chemicals
40 Cement
41 Other non-metallic mineral products
Capital Goods (10)
42 Iron and steel
43 Non-ferrous metals
44 Tractors and other agricultural machinery
45 Machine tools
46 Other non-electrical machinery
47 Electrical machinery
48 Communications equipment
49 Electronic equipment
50 Rail equipment
52 Other transport equipment

B: Classification by Production Characteristics

1983-84

Resource Intensive Industries (10)
12 Sugar
13 Food products
14 Beverages
15 Tobacco products
16 Cotton textiles
17 Wool, silk, synthetic textiles
18 Jute, hemp textiles
19 Textile products
20 Wood products excluding furniture
22 Paper and paper products

High Technology Industries (9)
28 Inorganic heavy chemicals
29 Organic heavy chemicals
32 Pesticides and drugs
38 Agricultural machinery
39 Machinery for food and textiles
40 Other machinery
41 Electrical and electronic machinery
42 Railway equipment
43 Other transport equipment

Capital Intensive Industries (5)
25 Plastic and rubber products
30 Fertilisers
31 Paints and varnishes
35 Iron and steel
36 Other basic metal industry

Labour Intensive Industries (4)
21 Furniture and fixtures
23 Printing and publishing
37 Metal products
44 Miscellaneous manufacturing

1991-92

Resource Intensive Industries (16)
20 Sugar
21 Khandsari boora
22 Hydrogenated oil
23 Other food and beverage
24 Cotton textiles
25 Woollen textiles
26 Art silk and synthetic fibres
27 Jute, hemp, mesta textiles
28 Other textiles
29 Wood products
30 Paper products
31 Leather products
34 Petroleum products
35 Coal tar products
40 Cement
41 Other non-metallic mineral products
High Technology Industries (11)
37 Pesticides
39 Other chemicals
44 Tractors and other agricultural machinery
45 Machine tools
46 Other non-electrical machinery
47 Electrical machinery
48 Communications equipment
49 Electronic equipment
50 Rail equipment
51 Motor vehicles
52 Other transport equipment
Capital Intensive Industries (6)
32 Rubber products
33 Plastic products
36 Fertilisers
38 Synthetic fibre and resin
42 Iron and steel
43 Non-ferrous metals
Labour Intensive Industries (1)
53 Other manufacturing

(Contd)

Appendix Table. Classification Scheme for Manufacturing Sector: Input-Output Tables: 1983-84 and 1991-92 (Continued)

C: Classification as per Skill Intensities	
1983-84	1991-92
High-skill Intensive Industries (5)	*High-skill Intensive Industries (7)*
30 Fertilisers	36 Fertilisers
32 Pesticides and drugs	37 Pesticides
34 Machinery for food and textiles	45 Machine tools
40 Other machinery	46 Other non-electrical machinery
41 Electrical and elctronics machinery	47 Other electrical machinery
Medium-skill Intensive Industries (14)	48 Communications equipment
12 Sugar	49 Electronic equipment
13 Food products	*Medium-skill Intensive Industries (14)*
20 Wood and wood products	20 Sugar
22 Paper and paper products	22 Hydrogenated oil
25 Plastic and rubber products	29 Wood and wood products
26 Petroleum products	30 Paper and paper products
28 Inorganic heavy chemicals	32 Rubber products
29 Organic chemicals	33 Plastic products
31 Paints and varnishes	34 Petroleum products
33 Cement	38 Synthetic fibre and resin
35 Iron and steel	39 Other chemicals
36 Other basic metal industries	40 Cement
38 Other agricultural machinery	42 Iron and steel
44 Miscellaneous manufacturing	43 Non ferrous metals
Low-skill Intensive Industries (14)	44 Tractors and other agricultural machinery
14 Beverages	53 Other manufacturing
15 Tobacco products	*Low-skill Intensive Industries (13)*
16 Cotton textiles	21 Khandsari boora
17 Wool, silk fibres	23 Other food and beverage
18 Jute, hemp textiles	24 Cotton textiles
19 Textile products	25 Woollen textiles
21 furniture and fixtures	26 Art silk and synthetic fibre
23 Printing and publishing	27 Jut, hemp, mesta textiles
24 Leather and leather products	28 Other textiles
27 Coal tar products	31 Leather and leather products
34 Non-metallic mineral products	35 Coal tar products
37 Metal products	41 Other non-metal mineral products
42 Railway equipment	50 Rail equipment
43 Other transport equipment	51 Motor vehicles
	52 Other transport equipment

low skill-intensive segments of manufacturing as seen earlier.

V
Concluding Observations

Trade has over the years shrunk India's manufacturing base, both in terms of value addition and employment. There is a distinct irony here. Traditional classical theory argues in favour of free trade; yet, in the Indian case, its role has been more of deprivation than providing a stimulus to growth.

The adverse impact of import liberalisation is more pronounced on intermediate and capital goods industries than on the consumer goods industries. Again, between the two affected categories the capital goods sector is worst hit. Since the intermediate and capital goods industries have relatively large income and employment generating linkages, their erosion would have a direct negative effect on value added and employment. Further, their erosion also implies the erosion of India's industrial base.

Inconsistent with the dynamics of economic growth, India is emerging as a producer of resource-intensive goods rather than the hi-tech and capital goods. This has led to a progressive and sustained decline in the share of hi-tech and capital-intensive goods in total manufacturing value added and employment. This is certainly not a desirable scenario.

High-skilled workforce in the manufacturing sector claims a relatively larger share in the manufacturing wage-bill at the cost of semi-skilled/unskilled workers. Among other things, this is widening the existing high wage disparity.

Lastly, like most of the debate on economic reforms, economists, policy-makers and industry associations in India are sharply divided on the desirability and pace of import liberalisation. We, however, tend to argue that with respect to import 'iberalisation 'yes' or 'no' positions are equally damaging. There is no denying the fact that India's pre-1991 industrial policy, was unduly protectionist more so prior to 1980s. Though such policy, among other things, helped the country to lay a sound industrial base, it cannot be disputed that it created a sheltered market for Indian industries, exempted them from foreign competition, brought a sense of complacence and ultimately resulted in 'high cost' and 'poor quality' industrialisation. This 'high protection-high cost-poor quality' syndrome needed to be corrected by import liberalisation. But the important question is about the nature and pace of import liberalisation and the areas of import liberalisation. This calls for a strategic approach towards trade and industrial policy to secure a sustained increase in industrial output and employment as also to protect India's industrial base without sacrificing efficiency.

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Emergence of Backward Castes in South Telengana

Agrarian Change and Grass Roots Politics

Anil Kumar Vaddiraju

Studies of two villages from Telengana, Andhra Pradesh, tell us a story of the emergence of backward castes in local politics. These unirrigated villages have not seen green revolution or any improvement in agricultural technology, which has prevented the strengthening of earlier class/caste power structure. It has allowed backward castes to improve their position socially and also in landownership.

THIS article deals with two village studies from the unirrigated part of Nalgonda district, Telengana, Andhra Pradesh. Much of the Nalgonda district – like much of the rest of Telengana – is unirrigated and drought-prone. This article studies changes in landownership as well as grass roots political power in this region.

It is argued that absence of green revolution and rapid development of the productive forces such as irrigation is the main reason why the dominant castes could not strengthen their hold between 1960-96. On the other hand the backward castes and lower castes emerged to take political power for precisely the same reason. The recently introduced electoral reservations following the 73rd constitutional amendment also strengthened the backward and lower caste claims to power. Thus both structural as well as political tendencies worked in favour of the emergence of backward castes at the grass roots (village and mandal) level.

This trend towards the emergence of the backward castes however is a nascent one and is limited to grass roots level only. This article argues that the further consolidation of backward and lower caste struggle for power needs another round of land reform which would reduce the unequal power held not only by upper castes but also by some backward castes.

While making the above broad point, it is also argued that (a) emergence of the backward castes is only partly state-induced but it is influenced by larger forces and is partly a historical process; (b) that the upper caste semi-feudal class in the region investigated faces dilemma about its reproduction; and (c) that the dilemma of the semi-feudal class, which is confronted with challenges from below, is its larger historical dilemma.

In Section I we present these arguments for Ramannapet Mandal. Section II and III present two village studies.

I
Ramannapet Mandal

Backward Caste Peasantry

The emergence of backward castes took place in nearly all the villages of the mandal roughly since 1970. Since then they have consolidated their position. This process was two-pronged. At the political level the backward castes challenged the authority of upper castes – mainly reddys; and succeeded to a large extent. At the economic level they challenged semi-feudal practices. Practices such as 'vetti' have completely disappeared. Now labour relations are almost entirely on the basis of free wage labour. The researcher could not find unfree labour or extra-economic coercion anywhere in the two village studies.

Commercialisation of the village political economy has also not led to the process of creation of 'capitalist landlords', who combine traditional caste power with modern economic power, for two reasons. First, there has been no drastic development of infrastructural facilities or productive forces such as irrigation canals, etc. Second, there were other pressing social reasons such as heavy dowries for upper caste endogamous marriages and division of landholdings among heirs. This led to decline of landlords economically, socially and politically.

At the political plane the periodic panchayati raj elections with reservations for OBCs and women have contributed much to the forming of caste solidarity among backward castes challenging upper castes. The emergence of backward castes was confirmed by the fact that in the June 1995 gram panchayat elections 14 out of 20 villages in the Ramannapet mandal elected backward caste sarpanches; five elected scheduled caste sarpanches (together making it 19) and only one village elected a forward caste candidate to a seat reserved for women. Thus by 1995, 19 out of 20 villages were under the political control of backward and scheduled castes. This was partly due to state intervention such as enforcement of panchayati raj and reservations partly due to autonomous lower caste development. The process was partly state-induced and partly historical.

Finally, was there a proletarianisation/polarisation process in the field area? The answer is no. The process observed was deconcentration of big landholdings and strengthening of small and middle holdings and thereby the backward caste peasants.

In the village Bogaram the land passed from gampala reddy families to padmashalis, and particularly to the master weavers. Though there is substantive land concentration still in the village and another round of land reform is necessary, it is much lower that till 1970. More importantly small and middle peasants were not reduced to agricultural labourers. The export-oriented, multilayered handloom industry has absorbed some agricultural labour.

In the village Janampally, the process of deconcentration is even more clear. The brahmin landlords sold lands after family partition and later owing to unmanageability. This land was bought by backward castes: weavers, yadavas and toddy tappers. In this village the 'vatandari' power structure was already in the hands of yadavas and later they further strengthened their position.

Semi-Feudal Class

The semi-feudal class consists of upper caste landlords in the region. In the field area they come from the reddy and brahmin castes. It will be shown that their economic, social and political importance has declined owing to the emergence of backward castes. But we have also noted that the state could not carry out thorough-going land reforms and these semi-feudal classes still command some economic power though declining. But why such decline? Why does economic growth not benefit these classes more than it does the other classes?

Political economists like Utsa Patnaik have argued that after the green revolution the traditional semi-feudal landlords have become capitalist landlords. But we have noted that such a phenomenon did not take place in the field area. This is owing to a combination of reasons. The historical dilemma of the semi-feudal classes is that either they modernise and compete with the emerging classes, castes (such as padmashalis and yadavas in our case), or they decline under the pressures created by the larger polity, economy and society. In our field area the semi-feudal classes started to decline because they could not modernise – by modernisation we mean modernisation of productive forces – and thereby strengthen their economic position. The state has also not strengthened the productive forces by improving the infrastructural facilities such as irrigation and canals. The physical conditions of economic production have not changed much over the last 30 years. In these conditions the semi-feudal class could neither accumulate much capital nor re-invest existing capital. This is the reason why the reddy and brahmin landlords could not become affluent capitalist landlords. This also explains why the phenomenon of capitalist landlordism is more pertinent to green revolution areas than to non-green revolution areas. (It may be noted that Utsa Patnaik draws her conclusions largely from studies done in green revolution areas, particularly Haryana.)

Thus the semi-feudal class in the study area had either to modernise – which it could not – or decline. As noted earlier the social pressures within these castes, such as heavy dowries during marriages and partitioning of family lands have contributed further to the decline of these classes/castes. The pressure to get the younger generation educated and placed in urban employment was added to this. Many landlords spoke with great anxiety about the difficulty of getting their sons and daughters educated and employed. So did the youth belonging to the landlord families for many of them have graduate or postgraduate degrees but no jobs.

How do landlords ensure their survival? How do they ensure their reproduction? First, they make use of whatever 'free' labour is available. Second, they too make use of whatever advances have taken place in productive forces – electric pumpsets and tractors.

It is by both making use of the capitalistic labour relations as well as the modest advances in productive forces that the landlords of the erstwhile semi-feudal class ensure their reproduction. For the backward castes family labour and the traditional caste occupation are great strengths in ensuring reproduction. These arguments are illustrated in the two case studies below.

II
Bogaram Village

The red soils Bogaram village are not richly fertile and cannot yield lucrative commercial crops. Bogaram has 1,500 acres of land, of which total irrigated land is about 400 acres. It is all well-irrigated. During droughts irrigated area goes down to 100 acres.

More importantly the area does not have any traditional irrigation system. There are no canals. The village does not even have a tank. Whatever irrigation there was, and is, depends on rains or more importantly on wells. Oral historical accounts tell us that well irrigation always played a prominent part in the village economy, and continues to do so even now.

The principal crops grown in the past, and to a large extent at present, are paddy, groundnut, castor and millets. Of these groundnut and castor are commercial crops. Paddy, which is the most important of all crops grown, is both a commercial and a subsistence crop.

Historical Background

From 1900 to 1950, the village Bogaram was the jagir of Gulam Mohammed Khan, granted by the nizam. The Gulam Mohammed Khan and his family lived in Hyderabad. But his control of the village was total. He had the right to the entire land revenue and had substantial landholdings. These lands were cultivated through the system of 'vetti' or labour service.

The ruler showed no interest whatsoever in the development of the village. He and his ancestors were primarily interested in the land revenue and the product from their personally owned lands. They left the village largely to the vicissitudes of nature. Chronic drought, at times near famine conditions, prevailed. Failure of crops, inability to remit land revenue in time, were usual features of the condition of the peasantry. This as we see below led to the evolution and shaping of the agrarian structure in the village in the succeeding period.

As the 'dora' (landlord) of the village Gulam Mohammed Khan performed three functions: (a) collection of the land revenue, (b) collection of various taxes, and (c) general village administration. This included law and order administration. As an absentee landlord and according to the administrative system of the nizam, i e, the 'vatandari' system, Gulam Mohammed Khan appointed, on hereditary basis, three village officers. He ruled through these village officers. They were the 'patwari' (or a brahmin karnam); a 'mali patel' (reddy); and a 'police patel' (reddy).

It is during these 50 years that a single reddy family accumulated about 1,000 acres of land; its members acting as the village officers of Gulam Mohammed Khan. The 'patwari' or karnam (a brahmin) acting as the revenue officer accumulated about 200 acres of land. The method was often simple. Whenever a peasant could not pay the land revenue owing to drought, or some other misfortune, that land was transferred, in the records, into the account of either of the village officers. Oral accounts inform us that exorbitant taxes of the dora were often the other reason why land shifted into the hands of the patels. The reddy patels would pay the dora the taxes of those who could not pay and then take control of the land of that taxpayer. Thus one family, the gampala reddys, acting as village officers accumulated around 1,000 acres of land (which was later partitioned among five brothers).

Caste was no hindrance to this predatory process. Often fellow caste members were also victims. But it was mostly the other backward castes and untouchable castes who bore this burden. As is well known through any study of Telengana of this period the domination of the patels (and of the doras) was not just economic, but was also social and political. Landownership operated as the objective basis of socio-economic and political oppression.

The other prominent castes of Bogaram village the padmashalis (weavers), the toddy tappers, the yadavas (in that order) were prominent neither economically nor politically during this period. As is well known the system of free labour service ('vetti') to the local lords, i e, the patels encompassed all. But one must take care to add here that even during this period the padmashalis (weavers) were relatively free from its effects. Numerically predominant in the village as they were, weavers retained some relative autonomy from the system of oppression. Even so they did not possess any land whatsoever. Nor could they make much out of their caste occupation during this period. Weaving became profitable much later.

The end of the dominance of the jagirdar came with one, the larger political struggle of the Telengana movement; and two, owing the abolition of zamindari by the central government. But Gulam Mohammed Khan did not relinquish his landed

interests easily, Whatever was left by him was taken over by his erstwhile village officers. In the struggles that followed one patel was shot dead by the 'razaakars'. Eventually, the struggle ended in favour of the local reddy patels, particularly the gampala family of reddys. And the influence of pateldom continued. Land continued to be concentrated in the hands of five gampala reddy brothers. With the solidarity of fellow caste members they continued to dominate village affairs.

Not all reddy patels in Bogaram village were big landlords. By 1950 more than 50 per cent of the reddys owned landholding of less than 25 acres. And often the land they owned was not productive. The absolute productivities of even big landholdings were dismal. It may be remembered here that in pre-green revolution period no Borlaug-packages were available. But what is important to note is that neither class differentiation nor low level of absolute standards of living affected caste solidarity. Considerable number of reddy families were self-cultivating but when it came to social relations with the other lower caste families, they were certainly discriminatory or semi-feudal. There was a strong element of dominance at the superstructural level even when it did not exist at the economic level.

Pateldom, 1950-75

The period between 1950 and 1975 was a period of the continuance of the traditional patron-client relations. Though the dora Gulam Mohammed Khan was dispensed with, the gampala patels continued to rule the village. In this the mobilisation of caste solidarity was quite important. The first gram panchayat elections were held after the formation of Andhra Pradesh state, in 1959. In these elections Gampala Ram Reddy was elected as sarpanch of the village. He continued as village sarpanch for another term. Thus the single gampala family continued to dominate, *de jure* from 1959 to 1970. And de facto till roughly around 1975. In this period, and till today, the gampala reddy family was, and is, associated with the Congress Party.

The productive forces of the village were not much developed during this period. The land was concentrated in the hands of patel reddy families. And the nature of productive forces supported this social structure. We can take irrigation for example. The entire village depended to a large extent on well irrigation. This means that in a period during which there was no electricity, it was the big landowners who took advantage of whatever technology that was available. The oil engines which were used to pump water were within the means of big landholders only. Family farms and small holders certainly could not afford oil engines. The small peasants had to rely on 'mota bavis', a moat worked by oxen.

There was little or no state intervention to augment productive force. Electricity came to the village in 1982. State intervention even in other rural development programmes was minimal during this period. The gram panchayat sarpanches wielded political power, often backed by social domination, but they lacked public, governmental funds of any kind.

During this period the gampala reddy families, as headmen, arbitrated the village affairs and, quite importantly, the village disputes. Besides this they managed their own substantially big farms through, what appears to be semi-feudal labour relations. Vetti of the untouchable castes in particular seems to have continued, in however feeble form, till 1970.

Backward castes/classes in the village, though numerically preponderant, were not politically assertive during 1959-70. First, they were divided along caste lines. Secondly, the socially dominant and numerically important among them, the weavers, lacked economic power. During this period the weavers were only weaving cotton/handloom cloth for the local market which was not lucrative. The handloom industry had not yet found a world market. We will argue below how the globalisation of handloom industry led to the creation of a class structure among the weavers which in turn led to their political assertion.

But we should hasten to add here that the assertion of the backward castes took place much before the political ascendance of the weaving caste. The political assertion of the backward castes occurred basically against the gampala reddys.

Backward Castes, 1975-95

The first sarpanch Gampala Ram Reddy worked from 1959 to 1970. The de facto domination of the gampala reddy family continued till 1975. But the emergence of backward castes took place prior to 1975 In 1970 pachayati raj elections, all the backward castes worked against the vatandari gampala families. A toddy tapper was elected as sarpanch and continued in the post till 1981.

The weavers in the village were a numerous and politically important caste. But they were united against vatandari reddys. Weaving till 1980 was only meant for the local market. The raw materials yarn, chemicals, etc, used to be brought from Hyderabad and finished cloth used to be again marketed in Hyderabad. During the tenure of the toddy tapper sarpanch the most significant achievement was village electrification. This meant that even small peasants could buy pumpsets for their wells. This in turn meant that the backward class small peasants could strengthen their family farms. Interestingly during this period, from 1975 till as late as 1988, the party configurations did not change much. Both the vatandari gampala reddys and the backward caste leaders fought each other as different factions of the same Congress Party. The weaver caste which independently asserted itself in politics later was also a part of the Congress Party

Weaving and World Market

By 1980, the occupation of weaving became a lucrative one. The local weavers started sending their cloth to metropolitan cities such as Bombay, Delhi and Madras. The premium quality cotton cloth they produced was being exported from these metropolitan cities to America, Europe and Eurasia. Some cloth was also exported to Asian markets such as Japan. Along with cotton cloth of high quality they also produced silk cloth and saris. This process of internationalisation was complex and has produced a class structure among the weavers.

This is at first reflected in the emergence of master weavers and then to a stratification among the weavers. Firstly, the enterprising among the weavers started bringing in the raw materials and distributing among the middle-working weavers. The middle-working weaver in his turn employed a worker-weaver from any labouring caste of the village. The work was divided up as follows: master weaver – distributes raw material and markets the finished cloth; middle-working weaver – applies colours, dye, etc, and hires labour; and wage-worker weaver – weaves the cloth on either daily wage basis or piece rate basis. This structure worked, and still works, in favour of the first category of master weavers. The second and third category of weavers do not get more than their daily wage. This wage fluctuates with the fluctuating prices of finished cloth in the world market. What this system produced between 1980 to roughly about 1990 is an affluent master weaver class which also started asserting its dominance over not only the weaver caste, but over all the backward castes.

The affluence of the master weavers is visible in their houses. They own modern trucks, scooters, refrigerators, air coolers, etc, and a phone is also to be found in the

house of every master weaver to facilitate his communications with the local and metropolitan businessmen. None of these consumer durables are found either in reddy caste houses or in the houses of lower caste weavers. The standard of living indicated by these consumer durables is very high by local standards.

More importantly the master weavers started investing their money into buying lands, mainly from the reddys and sometimes also from other backward castes. Thus one master weaver who combines his government job with his master weaving activity has accumulated more than 100 acres of land. He is now one of the two big landlords of the village.

The deconcentration of land among the dominant reddy families appears to have taken place owing to two important reasons. First, land partition among family members; second, increasing cash dowries during marriages. Dowries in reddy caste often run into lakhs of rupees. This is one important reason for the sale of lands by reddys.

The weavers of the village are also organised into a co-operative society. Elections do take place for the society. But the entire society is dominated by master weavers. During the elections for the co-operative society money, liquor, etc, are lavishly used. The master weavers literally invest in these elections and in turn later use the co-operative society for furthering their business interests. In these elections weavers do fight among themselves on party basis. The master weavers were united under Congress Party and presently they are under the Telugu Desam Party.

Though the weavers are divided by class, when it comes to panchayati raj elections, they mobilise caste solidarity for electoral purpose. But even during the panchayat elections it is the handful of master weavers who dominate their fellow caste members. Since master weavers are engaged in the circulation of raw materials and marketing the finished product, they enter into patron-client relations with the other lower caste weavers. These patron-client relations help them in mobilising caste solidarity. Thus on its face it appears as if all the weavers belong to the same class and represent the same interests; but in reality they are divided into classes and contain inter-class exploitative relations.

In 1981 elections the master weavers asserted their political power. This time one master weaver got elected as sarpanch on Congress ticket defeating the toddy tapper candidate belonging to the rival faction of the Congress Party. It is clear that by this time though the vatandari gampala reddys in the village were supporting Congress Party they had lost their place in the political scenario of the village. Certainly, a decisive shift took place on the social basis of political power from reddys to that of backward castes; and within the backward castes in favour of the master weavers.

In 1988 gram panchayat elections, the earlier sarpanch and master weaver changed over to Telugu Desam Party and mobilised his caste as well. Thus the anti-reddy feeling has also turned into anti-Congress politics. One can see the photographs of Congress leaders hanging on the walls in the houses of gampala reddy family but not in the houses of any backward caste villagers. Thus presently the backward castes are organised under the master weavers supporting the Telugu Desam Party.

Liberalisation and Weaving

For weaving things have changed since roughly about 1990. Prices of yarn, chemicals and other raw materials have doubled, while the price of the cloth exported has remained unchanged. The burden is transferred by the master weavers to the two lower rungs of weavers. This is done by cutting down the wage rates and/or piece rates. Thus it is the wage-workers who bear the burden of internationalisation.

Besides weaving and agriculture, the master weavers engage in moneylending. The money made out of weaving, agriculture and moneylending is now being invested in urban properties. For example, a master weaver and earlier sarpanch has properties in Hyderabad and has his son studying engineering in the US and he is himself active in district level politics. During 1970-90 the backward castes have consolidated their position economically and politically. Though a caveat is necessary here that there is a class structure within the backward castes.

Caste or Class

In this village study it is observed that a shift took place on the social basis of political power from upper castes to backward castes. But this shift took place only between the top layer of reddys to the top layer or upper class backward castes. State involvement was only by way of holding the gram panchayat elections. No decisive economic programme, such as land reforms, has been carried out by the state. The changes in the agrarian structure have come about owing to the commercialisation process on the one hand and on the other owing to the incorporation of the village political economy into the world market. The social relations have definitely changed from semi-feudal to capitalist. Vetti or such practices are totally absent now. The traditional vatandar reddy families have declined in political and social importance though they still hold some economic power.

III
Janampally Village

Historical Background

Janampally was a khalsa village in 1900. The nizam had three types of ruling systems: jagirdari, khalsa and sarf-e-khas systems. In the jagirdari system the jagirdar owned much or all the land of the village. In sarf-e-khas system the entire land was owned directly by the nizam's family and the land revenue went to their personal expenditure. In khalsa system, the land ownership rested with the villagers. It was much like the ryatwari system of the presidency areas under the British. The significant difference with the other two land systems was that the villagers owned the land in their names and the land revenue went neither to any individual jagirdar nor to the nizam but to the treasury of the nizam government.

Village administration in all three types of land systems was run through the vatandari system. It meant a system of village officers who consisted of the vatan these were the patwari, the mali patel and the kotval or police patel. Janampally by 1990 had vatandari system. Under the system the patwari or village revenue officer belonged to a brahmin-karanam on hereditary basis. The mali patel and police patel posts belonged to a reddy family which lived away from the village. By 1990 the mali patel and police patel vatans were transferred into the hands of local yadavas, regionally called the gollas. The yadavas' basic occupation is sheep grazing. But one family, the meda family of yadavas, accepted the vatans. While the brahmin-karanam family ran revenue matters, other matters concerning village administration were run by the meda family of yadavas. Thus in this village, backward caste leadership has existed for 95 years. Unlike in the case of Bogaram village, it cannot be said in Janampally that the backward classes, emerged in village politics at a particular time after independence.

In order to run the village administration the yadavas educated themselves to some extent. But this is only true of the meda family of yadavas. The rest of the yadavas continued to be illiterate and backward

Though the mali patel and police patel posts were held by the yadavas it is the brahmin-karanam and his family which dominated village politics from 1900 to as late as 1970. In this village there is no significant evidence that the vatandari families accumulated land during the nizam period under consideration, i e, 1900-50. Two reasons appear to be important for this: first, ownership of land existed in the name of the villagers, and second, the karanam patwari was himself a progressive man who participated in the struggles against nizam rule as a Congress Party worker under the umbrella of Andhra Maha Sabha. He even participated in armed struggle against the nizam. Thus unlike in Bogaram village the village officers did not resort to accumulation of lands or encroachment on lands.

The khalsa system itself allowed less room for accumulation of land by village officers. There was less arbitrariness in the land related accounts. This meant that in the Janampally village the possibilities of accumulation of land by village officers were much less than in the village Bogaram. Another reason for this was the village productive forces. The productive forces of Janampally village are better situated than that of Bogaram village. The village has 1,200 acres of land and a big tank and four small tanks. Both tank irrigation and well irrigation played important role in somewhat stable and assured subsistence for small peasants. Thus the politically progressive nature of local elites and better productive forces worked against the concentration of land in the hands of a few village officers. Thus in this village the agricultural scenario is characterised by the preponderance of the small peasants. Another important reason for the relative absence of much feudal or semi-feudal dominance is that village did not have dominant caste dora. Though there were some reddys in the village they were not the village officers and therefore their economic power was neutralised by the political power of the backward castes and therefore whatever upper caste domination existed in the village was that of the brahmin-karanam. But the progressive and politically active nature of this village officer also diluted the semi-feudal content of the social dominance. Thus the brahmin-karanam family had about 75 acres of land. They continued to dominate the village affairs partly from 1990 to 1970.

Brahmin Dominance 1900-70

It was difficult to obtain much details about the period from 1990 to 1970 regarding social relations or political dynamics. It became clear that owing to the absence of the dora from the village scene semi-feudal practices like the vetti were not prominent. The upper caste domination was also unnoticeable because of the fact that the two village officer posts were in the hands of local yadavas.

In 1959 panchayat elections a brahmin was elected as sarpanch. Again in 1964 elections another brahmin-karanam was elected as sarpanch. Both won the panchayat elections as candidates of the Congress Party. It should be noted that it is these people who participated in Telengana armed struggle against the nizam under the Andhra Maha Sabha. So they carried the popularity of having fought against the nizam. By the same token, as the interviews with them show they were also conscious of upper caste domination - particularly of reddy domination. It would not be correct to hold that the reddy doras were alone oppressive. But the main cause which ignited the Telengana armed struggle was reddy oppression. Having been conscious of the causes and consequences of the armed struggle the brahmin-karanams of Janampally were more liberal.

Nevertheless, the brahmin patwari and other karnams continued to be the top landowners in the village, they owned more than 75 acres of land. But they cultivated this land through hired labour rather than through tenants. This land was later partitioned within both the families.

Backward Caste Peasantry

The break with brahmin dominance came in 1970. In the 1970 panchayat elections a yadava sarpanch was elected. This yadava sarpanch came from the meda family of yadavas to whom belonged the mali patel and police patel vatans. Thus it is since 1970 that the backward castes came to the forefront of village politics.

The yadavas' or gollas' main caste occupation is sheep grazing. In this village they combine it with agriculture. Most yadavas do own land and are small or middle farmers. Some yadavas own less than 10 acres and some less than five acres. The village productive forces are much better suited for the sustainability of dwarf holdings than in Bogaram. The village has four small tanks and one big tank as noted earlier. Most yadavas own their parcels of land under these tanks. (Since 1980 the four small tanks are used only as percolation tanks, i e, the water is stored and not used directly with the idea that the stored water would percolate into the wells dug in the ayacut area of the tanks. Thus tanks are used to enhance groundwater situation.) Much like Bogaram, in Janampally also electricity came in the early 1980s. Since then almost all backward caste small peasants have acquired electric motors and pumpsets.

Yadavas are numerically the most preponderant backward caste in the village. The next most important backward caste in the village is the weaver caste or the padmashalis. Weaving in the village is qualitatively different from that in Bogaram. We turn to this aspect below.

Apart from yadavas and weavers the third most important backward caste in the village is that of toddy tappers. Together these castes form a political block in the village. They are deeply conscious of their political, economic and social backwardness and also conscious of their numerical strength.

Weavers in the Janampally village are basically subsistence weavers. They weave primarily for the home market. Cotton and silk cloth and saris are produced here. Unlike in Bogaram village there are no master weavers. Weaving is done by independent family units. The cloth is supplied to the local co-operative society. The local (village) co-operative society markets the woven cloth through Andhra Pradesh weavers co-operative (APCO). Each silk sâri, for instance, sells for about Rs 1,000 to 1,500. It is precisely because there is no master weaver that there is little capital or land accumulation by weavers. In Bogaram village the master weaver system arose owing to the internationalisation of weaving. In contrast to this in Janampally village weaving is essentially for the national market.

Elections do take place for weavers' co-operative society. But the candidates do not use money, liquor, etc, for winning elections. The co-operative society chairperson is usually elected unanimously. Since liberalisation weavers have faced difficulties. As in Bogaram village, in Janampally also weavers face a rise in the prices of raw materials and stagnation in the prices of finished cloth. Besides this the weavers in Janampally also face competition from textile industry centred in and around Bombay. There is unequal competition between textile mills and handlooms. Often the market favours textile mills rather than handlooms. An inefficient system of marketing by local co-operative and APCO also aggravates the situation. The handloom weavers do not get payment promptly for the work done from APCO and consequently from the local co-operative. Padmashalis (weavers) of Janampally have not become landlords unlike those of Bogaram. There is

no internationalisation of handlooms; no master weavers; no three-tier structure of weaving; and no land accumulation.

Labour in Janampally

Janampally has two kinds of labour relations casual labour and attached labour. Casual wage labour is hired on daily basis. Wages for casual labour are around Rs 15 for women and Rs 30-40 for men. Under the attached labour or the 'jeethas' system the wage labourer is hired on annual contract basis. The rate for annual contract is Rs 6,000 to 7,000. Along with it the labourer is given a loan of about Rs 2,000 at 2 per cent per annum interest. Here the researcher could not find any debt bondage. Attached labourers never work for an employer for more than one year, the labourer usually pays off his debt at the end of the agricultural year and enters into contract for another year with another master. Usually attached labourers come from backward castes as well as from scheduled castes. Employers are either from upper castes, brahmins and reddys or from other backward castes.

Since 1980 labour is increasingly turning from work in the village to work in the nearby town. Nearly 60 labourers travel each day to the neighbouring town Chityal to work as 'hamali' coolies in the rice mills. There they earn more than the daily wage in the village, i e, about Rs 70 to 80.

Land Ownership

In Janampally village as we have noted earlier backward castes emerged in panchayat politics from 1970 onwards. They continue to hold on to village office posts – mali patel and kotval – which were bestowed upon them as early as 1900.

Landownership is no more concentrated in the hands of upper castes. But holdings of more than 25 acres, which is above the ceiling imposed by the government, continue to exist in the hands of brahmin landlords. But the holdings have declined substantially (from about 75 acres in 1970 to about 20-25 acres now).

Weavers at first bought lands from brahmins. Later weavers sold their lands to other backward castes such as yadavas and toddy tappers. Now it is yadavas and toddy tappers who form a majority of middle and small holders and who also run the village politics – *de jure* and de facto. In this village commercialisation has had considerable impact on the agrarian structure. Land values improved from about Rs 400 per acre in 1960 to Rs 25,000 to 30,000 per acre in 1990. In 1995 well situated wet land sold for about Rs 45,000 to Rs 50,000. Dry land now sells from about Rs 25,000 to Rs 30,000. Landlords declined because of partitioning of holdings, unmanageability and diversification of interests. Here no particular caste/class – such as master weavers of padmashali caste in Bogaram – acquired the lands. Many backward castes benefited from the decline of big landlords. Benefited in the sense that they bought the lands of erstwhile big landlords and strengthened their small and marginal farms.

No significant phenomenon of transformation of big landlords into 'capitalist landlords' was observable in the village, primarily because no drastic change occurred in the past 30 years in the productive forces or physical infrastructure of production. The advent of electricity and electric pumpsets has benefited the small and marginal peasants as much as the big landowners. Consequently no process of proletarianisation took place in the village.

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Federal Financial Relations

The Plan/Non-Plan Conundrum

B P R Vithal

The division of total revenue expenditure into plan and non-plan and the division of functions and responsibilities between the Planning Commission and the Finance Commission have become important issues in federal financial relations. These can be discussed under four broad heads: (i) the constitutional aspects and how the various commissions have looked at them; (ii) the practical aspect; (iii) the impact of the dichotomy between the two institutions on fiscal discipline among the states; and (iv) the institutional aspects.

ECONOMIC and social planning is Entry 20 in the Concurrent List. In Articles 112 and 202 of the Constitution, where the annual financial statements of the union and the state governments are prescribed, it is stated in clause (1) that this shall consist of "a statement of the estimated receipts and expenditure of the government of India/state for that year". In the case of the estimates of expenditure, however, it is stated, in clause (2), that such estimates "shall distinguish expenditure on revenue account from other expenditure". Government accounts are, therefore, classified into 'revenue' and 'capital'. Neither plan nor non-plan expenditure is mentioned in the Constitution.

In Article 275, where grants-in-aid of revenues are related to "needs of assistance" as determined by a Finance Commission, no specific mention is made, in the substantive clause, of schemes of development, though these are mentioned in both the provisos under this article. From 1952 onwards, national plans for economic and social development were taken up progressively on a substantive scale. The budgetary sector of such plans being their most important and determinate component, even when they do not constitute a major portion of the total outlay, intergovernmental fiscal transfers for the plan assumed growing importance over the years. The appointment of a Planning Commission as a continuing body and the constitution of a National Development Council as the highest authority for approving national plans introduced extra-constitutional elements into federal fiscal relations. The plan has both revenue and capital components. The capital outlay in the state plans is financed by capital receipts, central loans and market borrowings. The finance commissions have had to examine these aspects when a specific reference was made to them of the debt position of the states. The commissions have also, suo mottu, recommended capital grants under upgradation of administration. But the main issue relating to the relative roles of the Planning and Finance Commissions has arisen in regard to plan revenue expenditure. As a result, the division of total revenue expenditure into plan and non-plan and the division of functions and responsibilities between the Planning Commission and Finance Commission have become important issues in federal financial relations. These can be discussed under four broad heads:

(1) the constitutional aspects and how the various commissions have looked at them;
(2) the practical aspect;
(3) the impact of the dichotomy between the two institutions, on fiscal discipline among the states; and
(4) the institutional aspects.

I
Constitutional Aspects and the Commissions

Briefly the position is that it is agreed by all that there is no constitutional bar to grants for plan purposes being recommended by a Finance Commission under Article 275. If there is a controversy, it is about Article 282 being used for this purpose. There is also no bar to such grants being given even for capital purposes.

The Second Commission, for the first time, specifically dealt with the question of co-ordination between the Planning and Finance Commissions. It is interesting to note that the difficulties that they listed in dovetailing the work of these two commissions have, more or less, persisted since then right up to now. They provide as good a justification as any for the subsequent practice of excluding plan expenditure from the purview of finance commissions. The difficulties mentioned by them were:

(i) the period of the plan and the five years to be covered by that commission were not co-terminus;
(ii) in the forecasts agreed to between the Planning Commission and the state governments, many states had underestimated their committed expenditure and overestimated the yield from existing sources of revenue;
(iii) this meant that the contribution from existing revenues, which were assumed for financing the plan, were not available;
(iv) the resources expected to be raised by the states through additional taxation were also likely to be absorbed for financing committed expenditure;
(v) the central assistance given for certain schemes was to taper off, creating a fresh liability (these are the centrally sponsored schemes).

It will be seen in the course of this chapter how prescient this analysis of the Second Commission was and how a situation described in 1957 continues to be true even today despite several successive finance commissions, five-year plans, and protestations of fiscal and budgetary reforms.

The terms of reference of the Third Commission specifically mentioned that the commission should take into account "the requirements of the Third Five-Year Plan". When this commission took this term of reference literally and took into account 75 per cent of the revenue component of the state plans while recommending devolution and grants-in-aid, its member-secretary recorded a note of dissent and subsequently the union government did not accept this part of the recommendations of that commission. Kamat's (member-secretary) contention was that, since central assistance had been specifically sanctioned for the Third Five-Year Plan, there was no need for the Finance Commission to again consider the question of grants for plan purposes. A point made by him in this note was that grants-in-aid under Article 275 had been hitherto looked upon as "untied and unconditional". If they were now given for plan purposes, a procedure for review would have to be prescribed under this Article which, in his view, would be more onerous than the procedure that the Planning Commission was following for review of expenditures from grants under Article 282. The interesting aspect of this is that while the finance commissions did not recommend plan grants they, nevertheless, prescribed reviews for grants under Article 275 for upgradation of administration. On the other hand, with central assistance for the state plans under Article 282 being distributed among the states in accordance with the Gadgil Formula, the Planning Commission did not undertake any specific review of the expenditure out of such grants, except for some earmarked items. Justice Rajamannar (in his minute appended to the report of the Fourth Commission) while taking the view that the

language of Article 282 was 'wide enough' to cover plan grants, doubted whether grants could be made under Article 282 "without tying them to a specific public purpose".

In the case of the Fourth Commission additional resource mobilisation during the forecast period was excluded from being considered under revenue resources, but the exclusion of plan expenditure was not expressly mentioned. However, the commission considered it desirable that, "the Planning Commission, having been specifically constituted for this purpose should have unhampered authority in this domain".

In the case of the Fifth and Sixth Commissions also non-plan expenditure was similarly excluded only by implication, in that only "maintenance of plan schemes" was mentioned under expenditure. The Fifth Commission took the view that the terms of reference did place a restriction on the commission recommending grants for social services outside the plan but they did not place "any limitation on the process of tax devolution". The Sixth Commission, however, noted that certain 'ground rules' for reassessment of the forecasts of state governments had 'by now become clearly established' among which was separation of non-plan from plan expenditure. From the Seventh Commission onwards the terms of reference clearly mentioned "the requirements on revenue account" of the states to meet "non-plan commitments or liabilities." The Seventh Commission also considered this 'a well established practice" and did not consider it a constraint on them. The Ninth Commission alone was an exception in that it was asked to take into account 'revenue expenditure' which would, by definition, include plan revenue expenditure. Nevertheless, the commission went into the question of the scope of Articles 275 and 282, took legal opinion and expressed the definite view that "grants for financing the state plans are very much within the purview of the commission under the said article" (i e, Article 275). This commission, in fact, went into the question of the financing of state plans under the Gadgil Formula, found a "basic flaw in the present system of federal fiscal transfers" and proposed what it considered a remedy for this under Article 275

The Tenth Commission expressed the view that "the present artificial distinction between plan and non-plan expenditures... shall be replaced by the simpler and conventionally well recognised distinctions between revenue and capital. Future finance commissions may be required to examine the aggregate requirements on revenue account and recommend means to bridge the revenue gaps". However, in the entire subsequent debate on the alternative scheme suggested by the Tenth Commission, this aspect has never been discussed.

II
The Practical Aspects

Plan expenditure is incremental expenditure. It is not synonymous with developmental expenditure. For analytical purposes, the heads of expenditure in a budget are some times categorised as 'developmental' and 'non-developmental', but this is neither statutory nor prescribed under the account rules. It is necessarily arbitrary and can change from time to time. For instance, Police Housing was not under the plan at one time, because it was considered as expenditure under the head Police, which is a 'non-developmental' head. Later, it was brought under the plan under 'Housing', which is a developmental head. The motive here was not that a more rational classification was being done but was to give access to funds available under the plan, which were more abundant than under non-plan. It also helps show larger plan outlays. The study team on 'Reforms in the structure of Budget and Accounts' (1971) had stated as follows:

> Incidentally, as plan is the instrument of development, plan expenditure has generally come to be associated with developmental expenditure and, as a corollary, an impression is sometimes created that expenditure which is not classified as 'plan expenditure' is non-developmental in character. However, a large chunk of expenditure which is now classified as 'non-plan' is also developmental in character but is classified as 'non-plan' expenditure either because it is a committed expenditure on completed schemes of earlier plans or is a spill over from the earlier plan or is outside the plan allocation agreed to by the Planning Commission. In our view, this position has given rise to some misunderstanding about the nature of public expenditures. We would, therefore, suggest that the Ministry of Finance and the Planning Commission may lay down guidelines for the classification of expenditure between 'plan' and 'non-plan'

The important point is that plan revenue expenditure is 'incremental expenditure' under heads of account which are considered to be developmental heads in the revenue budget and which alone figure as developmental sectors in a plan. Base level expenditure even under such 'developmental' heads of account is non-plan expenditure. However, all expenditure under non-developmental heads, base level and incremental, is non-plan.

There was incremental expenditure under developmental heads even before there were plans. The budgetary procedures distinguished between expenditures at current levels and fresh expenditure or new items of expenditure at that time also. Any incremental or new expenditure proposed for a succeeding year was considered under what was then called Part II of the budget. According to this procedure, all proposals for fresh expenditure, whenever mooted by any department were initially examined on merits by the department concerned and the finance department and a view was taken whether the

proposal deserves to be considered. At that stage the question of availability of funds for the scheme was not taken into account. Departments, therefore, accumulated what were called Part II schemes, which had been examined and agreed to but kept pending. In modern terminology this would be called 'a shelf of projects'. At the time of the budget exercise, the finance department would decide how much fresh expenditure would be possible in the next financial year. Depending on this, they would then call for Part II schemes and government would decide which would be included in the budget for sanction as new schemes. Initially plan schemes also figured as Part II schemes. The study team referred to above, commented as follows.

> At present, Part II of the Demands does not show the plan and non-plan components of expenditure under the various programmes, activities, schemes and organisations. The total provision on plan and non-plan accounts included in the Demand are shown as a footnote. While it is true that a separate document titled 'Plan-Budget Link' gives the details of plan expenditure included in each Demand, we feel that, in the context of the magnitude of the plan expenditure and the role of budget as an instrument for the execution of the plan programmes, Part II of the Demand itself should exhibit the distribution of the expenditure on the various programmes, activities and schemes between plan and non-plan items. This will ensure a better appreciation of the plan programmes and will also facilitate appraisal of the progress of plan against the targets.

Subsequently, plan and non-plan were indicated as two components in the budget itself.

The plan procedure was superior to the then existing procedure for sanction of new schemes in the budget, because the plan gave a framework of intersectoral priorities according to which the available surplus could be utilised for sanction of new schemes, whereas the old procedure would have been more arbitrary. Therefore, our problems have not arisen, strictly speaking, because of considering incremental expenditure to be plan expenditure but for other reasons, which we explain below.

Given the existence of two institutions, viz, the Finance Commission and the Planning Commission, the fact that plan expenditure is, by definition, incremental expenditure provides a logical basis for a division of functions between the two commissions on the analogy of the Part II procedure we have described above. The revenues and expenditures that finance commissions have been taking into account in the first year of their forecast periods are at current levels and would correspond to what used to be called Part I of the budget. The projections for the remaining four years would take into account the normal growth of these revenues and expenditures on the basis of past trends or some future anticipation of inflation. No new expenditure would be included. Such new expenditures and the additional resources to be raised for financing them would form part of the next plan. This was what was called Part II of the budget under the old procedures.

The Constitution requires a Finance Commission to be appointed once in five years. We modelled our planning process on that of the Soviet Union who adopted a five-year cycle for a plan. Therefore, by a historical accident, the two time cycles were such that the work of the two commissions could be dovetailed on the basis of a five-year cycle. At the time of the Ninth Commission the plan period and the period of forecast of the commission were synchronised. However, by the time the Tenth Commission was appointed, this was again disrupted and the commission pointed out that this issue was urgent and should be dealt with while determining the period for the next plan. The Eleventh Finance Commission should have been appointed by June 1997 at which time the five-year period from the date of appointment of the Tenth Commission expired. However, this was not done, presumably because a constitutional amendment was under discussion. We can only assume that the interpretation given to the constitutional provision was that the next commission need only be appointed such that its report would be available by the time the period covered by the Tenth Commission's recommendations expires. In all these 50 years, this was not the interpretation given to the constitutional provision. The Eleventh Commission has now been constituted on the July 3, 1998. Para 5 (iii) of the terms of reference states that the commission shall have regard to the "requirements of the states for meeting the plan and non-plan revenue expenditure". The Ninth Commission took into account plan revenue expenditure by implication because its terms of reference had mentioned 'revenue expenditure' without excluding plan revenue expenditure as had been done in the case of the previous commissions. The present term of reference is even more specific. This commission can, therefore, cover the entire revenue expenditure.

In para 5 (iv), the commission has been asked to take into account "maintenance of expenditure of plan schemes to be completed by March 31, 2000". In 1997 the then United Front government had reiterated its resolve to formulate a five-year plan for the period 1997-2002. As of this date, the present government of India has not made any clear statement in regard to the current plan. It is, therefore, still open to end the current plan by March 31, 2000. There is no sanctity in the five-year period for a plan and as such there should be no difficulty in taking the current plan to be for the period 1997-2000. This could be considered a three-year plan or three annual plans. Both these approaches have been adopted in the past. In view of the present uncertain economic situation, the next plan, if there is to be one, could be for the period 2000-2005, which would coincide with the period of forecast now indicated for the Eleventh Commission. If this is done, it would have the advantage of restoring the synchronisation between a plan period and the period covered by the Finance Commission as had been recommended by the Tenth Commission.

III
The Dichotomy and Fiscal Discipline

If the separation of functions between the two commissions could be justified on this logical ground, what exactly went wrong? While arriving at the base level for both revenues and expenditures, every Finance Commission had generally accepted the existing situation on the ground. It is this that has been sometimes criticised as a 'gap filling approach'. However, while making projections for the forecast period, they were not equally indulgent. They sought to introduce some measure of efficiency and discipline. Certain subsidies, like those for service charges for utilities like power and water, were not fully accepted. Adequate provision was made for maintenance of capital assets like roads, which the states were neglecting. Better results on public sector investments were assumed. In the case of those states, which were not putting in adequate effort to raise their own resources, a better effort was presumed. In actual practice, however, the states ignored every such recommendation of the finance commissions. Add to this the deus ex machina of inflation. The finance commissions have always made assumptions regarding inflation which neither previous trends nor future prudence justified. The only justification was that realism would be self-fulfilling and should, therefore, be avoided. This gave a not insubstantial fig leaf for the states to cover their own failings.

The commissions were too wise and experienced not to realise what was happening. But what could they do? They could neither wish away the irresolution of the state governments nor passively accept the inevitability of events. So they adopted the time-honoured device of closing their eyes and discovering reasons for hope in the future. The hope can always be nursed, except by anarchists, that, somewhere in them, governments have

the capacity to discern right and wrong and the resolution to take rational action. The assumptions of previous commissions were modified on the ground that knowledge had advanced, even if experience had stagnated. The bottom line was that the commission had to do its work within a stipulated period and the arithmetic had to add up and internally consistent, even if externally irrelevant. The finite limit was the centre's capacity to share its tax revenues with the states. The arithmetic was worked out first and the logic derived later. Like Avatars, the commissions arose periodically when the financial dharma was in disarray. They gave in their reports a new dispensation that would restore dharma But there were no Devas to leave in charge of the reformed situation. It is this phenomenon that the Tenth Commission neatly summed up by observing that "if in actual practice the picture turns out to be worse than what it is being projected, even our conservative assessment of what can realistically be done would have been proved wrong. It is a perpetual battle between hope and experience." This was one-half of what went wrong: the indifference or intransigence of the states and the helplessness of the finance commissions.

The other half has been due to the Planning Commission, more or less, closing its eyes to this phenomenon. To understand this, let us briefly explain the process.

I A state's revenue resources (RR) at the base level will be equal to state's own revenue resources (SRR) + share in central taxes (SCT).
(1) RR = SRR + SCT
The difference between such total revenue receipts and non-plan revenue expenditure (NPRE) is called Balance from Current Revenues (BCR)
(2) RR – NPRE = BCR
If at this stage
NPRE > RR
BCR will be negative.
In this case, the Finance Commission recommends an Article 275 grant to cover the negative BCR, then
RR + Article 275 grant = NPRE, therefore BCR = 0

II The plan revenue resources (PRR) for financing the revenue component of the state plan (PRE) are as follows:
(3) PRR = BCR + ARM + CA
Where ARM is additional resource mobilisation for the plan above the base level and CA is central assistance. The Gadgil Formula assistance is divided into 70 per cent loans and 30 per cent grants. Therefore, for the revenue component of the plan, CA will be 30 per cent of Gadgil Formula assistance.
(4) If BCR is 0, then
PRR = ARM + CA
(5) If BCR is negative
PRR = (ARM – BCR) + CA
(6) If, – BCR > ARM, then
ARM – BCR will be negative, i e, central assistance (CA) for the plan will be diverted to finance non-plan expenditure. This is already happening in the case of the Special Category states.
(7) If, – BCR is > ARM + CA
then, even the loan component of central assistance will go to finance non-plan revenue expenditure. This stage also has been reached in quite a few states.

At the end of a Finance Commission exercise, no state will have a negative BCR. If a negative BCR emerges, then it means that the position as envisaged by the commission has since deteriorated.

The resources of the state are reviewed in September-December by the Planning Commission for finalising the Annual Plan of the next financial year. As indicated above, this exercise must begin with a review of the BCR. The BCR being the end product of the exercise of a Finance Commission, such a review is, in effect, a review of the Finance Commission's estimate of the resource position of the state concerned. The Finance Commission, not being a continuing body, the Planning Commission can, through the instrumentality of this exercise, act as a monitor of the conditions prescribed by the Finance Commission. This, in fact, was a role that the Planning Commission was discharging during the first two decades. If a state under-provided for non-plan expenditure such as maintenance of roads in its anxiety to have a larger BCR so that it may have a larger plan outlay, the Planning Commission officials used to insist that the amounts prescribed by the Finance Commission must be provided. It was ensured at that time that the states provided for dearness allowances for staff in accordance with actual rate of inflation and not at the earlier hypothetical rates. This position underwent a change in the 1980s when the Planning Commission began sharing the anxiety of the states to show larger plan outlays and became indulgent in its scrutiny. If even after such an indulgent scrutiny of the resources of the states, the BCR and the ARM were not sufficient to justify a larger plan outlay, a new device was invented. It was called 'more efficient collection of state revenues and economies in non-plan expenditure'. It was not clear what effort was envisaged which would not have gone into the earlier exercise or estimation of ARM. The inevitable result of such an exercise was a shortfall in resources during the year.

The procedure followed by the Planning Commission for finalising annual plans of states also contained a lacuna that inevitably led to deficits on revenue account. The procedure was that the total approved plan outlay of a state was matched with total resources available. This would include revenue resources and expenditure as well as capital receipts and expenditure. The total plan outlay so approved is broken up into sectoral outlays. These sectoral outlays would contain both revenue and capital expenditures. Though some of the sectors may be predominantly the one or the other such as, for instance, education for revenue expenditure and irrigation for capital expenditure, the break up of the total plan outlay into revenue and capital expenditures can be known only from the state budgets. There is no matching of the revenue plan outlay with the revenue resources at the time of the discussions between the state governments and the Planning Commission. In a number of cases, therefore, the revenue plan outlay provided for by the state government in their budget exceeds the revenue resources available, though the total plan outlay and sectoral outlays may conform to the approvals given by the Planning Commission during the discussions. There is, therefore, *ab initio* a plan revenue deficit built into the budget itself. The Tenth Commission had commented on this as follows:

> There is a revenue plan which ought to be covered by revenue receipts. The clubbing of the revenue and capital components in one category termed as plan outlay has generated a tendency to use borrowings to finance revenue expenditure. It is imperative to match the revenue resources separately with the revenue component of the plan. Failure to appreciate this basic requirement of fiscal discipline is one of the main causes of the endemic fiscal disequilibrium. (Para 2.25, Report of the Tenth Commission).

The Planning Commission was thus, from year to year, faced with the two problems: (a) the BCR projected by the Finance Commission having disappeared; and (b) the BCR reworked at the time of the annual plan resource meetings also disappearing. As we have mentioned earlier, every Finance Commission has been confronted with deficits in the revenue budgets of the states, which ought not to have been there according to the calculations of the previous commission. The main difference between these two unanticipated gaps is that a Finance Commission, being a periodic body, has the consolation of being confronted with the sins of the state governments committed during the interregnum only. On the other hand, the Planning Commission, being a live and continuing body, is faced each year with the sins of commission of the

state governments and its own sins of omission. Deficits are sins; but while a non-plan deficit is mostly 'karma', i e, the fruits of past sins, a plan revenue deficit represents unrepentant continuing sin. A Finance Commission's dispensation is like the Catholic confessional: it condones past sins subject to certain penitence. The Planning Commission approving a plan with a deficit is the Pontiff approving continuing sinning.

The deterioration that has taken place in the financial situation of the states is, therefore, not attributable primarily to the fact that there have been two institutions dealing with federal financial transfers. It has been a result of our approach to plan financing. As we have seen, the budget exercise used to start by (a) an estimate of the revenue surplus available on the basis of current expenditures and expected revenue receipts and (b) deciding to what end this surplus would be applied. That this end, which was called Part II or New Schemes, would now be a more elaborate and consistent frame called a plan would not have made a difference. However, the process was reversed and the exercise began by (a) determining what should be our desired plan outlay and (b) deciding how additional resources would be mobilised for achieving this objective. The difference between objective and effort was conveniently covered by a deficit, which was now morally acceptable to the economists. Economic classification looked at expenditure, such as education and health as investments and not current expenditure It did not take into account the fact that, while investment in asset creation was expected to generate a return flow of non-tax revenues, current expenditure required tax returns to balance it. If this did not happen, a revenue deficit arose. This deficit was subsumed in the fiscal deficit and shared its respectability in economic discourse. The qualitative difference between a revenue deficit and a fiscal deficit was blurred and the one inexorable limit on current or revenue expenditure was removed. At best, ARM was used to assuage an uneasy conscience. ARM became a jumbled RAM mantra of the plan. The Soviet practice was approvingly quoted, where it was the plan that had the legal authority and not the budget. Financial 'santhoolan' was then considered as subversive of developmental effort as 'santhrushti' would now be considered as subverting the market.

IV
Institutional Arrangements

In considering the institutional arrangements we need to take into account constitutional provisions on the one hand, and the nature of the plan process, on the other. Two institutions already exist in this field, viz, the cinance commission as required by the Constitution, and the Planning Commission. However, we are at a juncture when, on the one hand, amendments to the provisions of the Constitution covering federal fiscal transfers are being considered and, on the other, the entire range of economic policies are being reviewed. Therefore, the nature of the two existing institutions need not be a constraint on any review we may now undertake.

The real distinction between these two bodies arises out of the nature of their tasks. A Finance Commission is a constitutional body charged with the responsibility of distributing resources between the different levels of government under the Constitution – the union, the states, and now the local bodies. A Planning Commission, even if it is made a constitutional body, will have the task of formulating plans which, by their very nature, will have to be, partly at least, political documents. The fact that the Planning Commission has been reconstituted whenever the parties in power at the centre have changed and that even plans previously prepared have been terminated when such changes occurred shows the political nature of this process. In the plan process, overall resources and the different levels of government are only the means for the achievement of certain socio-political goals.

Guhan had taken the view that, "There is, in fact, a 'clear rationale' for the Finance Commission not dealing with the plan revenue account". His objection is based on the fact that a Finance Commission is a "discreet occurrence" and not a "standing body" like the Planning Commission. If the logical consequence of treating the aggregate revenue account as one, including plan and non-plan, is that there should be one body which deals with all transfers, then Guhan would like this one body to be the Planning Commission (*EPW*, April 22, 1995). In that case the political nature of planning may vitiate the objectivity of federal fiscal transfers, both vertical and horizontal. Further, if we combine the functions of a Finance Commission and a Planning Commission in one institution, we will be imparting to it a strength in federal fiscal relations which was not considered desirable even in the heyday of socialist planning when it was said by some that the plan should prevail over the budget, as it did at that time in the Soviet Union. This very strength will call its objectivity into question in course of time.

Guhan reposes his hopes in the Planning Commission based on the fact that "linked as it is to the National Development Council" it will be in a position "to develop a long-term federal consensus on the extent and pattern of transfers from the centre to the states and between the states" and will not be "a gamble on the personal views of five persons, or a majority of them", as Justice Rajamannar had put it. This hope is based on several assumptions in regard to the Planning Commission, its relation to the NDC and the method of functioning of the NDC. The Finance Commission on the one hand, and the Planning Commission on the other, represent two different approaches to the settlement of inter-state issues. A review of the experience of the last four decades should help guide us in regard to the choice we have to make for the future. We have had, in the finance commissions, a kind of 'arbitration' or 'award' approach while the Planning Commission has had to adopt a more democratic approach of evolving a consensus. The Gadgil Formula represents the result of the consensus approach and the various formulae evolved by the 10 finance commissions so far represent the results of the 'gamble on the personal views' of 50 individuals, there is no reason to regret the gamble, since the horizontal transfers under the formulae devised by the various finance commissions have been more progressive than plan transfers under the Gadgil Formula. The Gadgil Formula itself has been further diluted or vitiated by devices such as centrally Sponsored Schemes and externally-aided projects.

The manner in which the Gadgil Formula was evolved and subsequently modified provides a good case study of the limitations of the consensus approach. The initial evolution of this formula and its approval by the NDC is an example of the best aspects of the consensus approach. It was not easy to evolve a formula for the first time when there was none. The fact that this was done is a tribute to the respect which Gadgil commanded at that time and the stature and statesmanship of the chief ministers who were then members of the NDC. The first modification of the Gadgil Formula, which increased the percentage available for states with per capita income below the all-India average was a progressive one but it was adopted by a procedure which was in complete contrast to the manner in which the formula itself has been evolved. The modification was announced by the then prime minister, Indira Gandhi, in her concluding remarks to the NDC almost as an aside to the proceedings. On subsequent occasions when an attempt was made to modify this formula, a transparent procedure was adopted in evolving and considering various alternatives, first when D T Lakdawala was the deputy chairman and subsequently when Madhu Dandawate was in-charge and A Vaidyanathan was the member concerned. But on both these occasions no decision could be arrived at. When the formula was, in fact, modified subsequently, it was done in the usual confused atmosphere.

These successive incidents are a commentary on the methods of obtaining a consensus. It would appear that in a democratic body consensus never really evolves but is often obtained by a process in which haste and confusion prevail over deliberation and clarity. The consensus is acquiesced in, not so much because every one accepts it but, because no one has sufficient conviction or energy left to disagree. The element of a gamble, therefore, is as much there in this democratic dynamics as there is in the award process. The difference is that, in one case there are 26 interested parties, while in the other there are five, perhaps, opinionated but disinterested players. A process of consensus is bound to be based on compromises, which may have the advantage of being generally acceptable but will suffer from the disadvantage of not fulfilling adequately the criteria of either efficiency or equity. As James Madison warned in the 'Federalist Papers', "in a search for consensus it would no longer be the majority that would rule, the power would be transferred to the minority". Any award may be a gamble, but the gamble arises out of internal biases and not external pressures. The choice between a Finance Commission and a Planning Commission type of institution will, therefore, have to take several other factors also into account and not merely the nature of their composition.

If the plan process is to continue as it has been so far, it would appear prudent to have two institutions. However, most experts and all finance commissions so far, are agreed that, even in such a situation, there are clear disadvantages in excluding plan revenue expenditure from the purview of the finance commissions. We have seen, in the course of our review earlier, how significant these difficulties and deficiencies have been. These can be overcome by allowing the Finance Commission to take into account the entire revenue expenditure, as was done in the case of the Ninth Commission and has now been done for the Eleventh Commission. The Finance Commission then makes projections for the forecast period with which it is concerned and determines total revenue expenditure under various sectors. After taking into account the total revenue receipts that, in their view, can be raised, grants under Article 275 are recommended. In these exercises it will have to make assumptions regarding rates of growth, etc, with which the Planning Commission may normally be concerned in the course of formulating plans. It would, therefore, be necessary to ensure close co-ordination between these two bodies. To facilitate this a convention had been established, since the Sixth Commission, of having a member of the Planning Commission on the Finance Commission.

The devolutions and grants under Article 275 recommended by the Finance Commission, if accepted, will be statutorily binding on the central government. The Planning Commission will have to take them as given. This is so even now when the Finance Commission does not take plan revenue expenditure into account. Finance commissions have entered the domain of developmental expenditure in their assumptions and through upgradation grants. However, these do not prevent the Planning Commission from formulating the revenue component of the plan on its own assumptions. If the planning commission's assumptions mean that plan revenue expenditure would be higher than what the Finance Commission had anticipated, the states will have to raise additional resources for this purpose. Conversely, if the plan envisaged by the Planning Commission had a lower revenue component, there will be a revenue surplus which will be available for financing capital expenditure. In either case the statutory devolutions and grants under Article 275 recommended by the Finance Commission will not be effected. The Ninth Commission, which has been asked to take total revenue expenditure into account, followed a similar approach. This did not prevent the Planning Commission from finalising the state plans on its own assumptions and recommending central assistance for such plans over and above the Article 275 grants recommended by the Finance Commission for plan purposes in the case of some states.

In the discussions in the Standing Committee of the Inter-State Council the proposal of the TFC, to prescribe in the Constitution the percentage share of the states in the gross proceeds of central taxes and keep it fixed for 15 years, was not accepted. The consensus was that the percentage should be 29 to begin with, as recommended by the TFC, but that it should be reviewed every five years by a Finance Commission. With this modification the alternative scheme will come down to only a change in the nature of the divisible pool. This pool will not be a percentage of two taxes as at present but will be the gross tax revenues of the centre. Everything else remains the same. With this, the relative roles of the finance and planning commissions become an issue again. The terms of reference of the Eleventh Commission, since constituted, require them to look into both plan and non-plan expenditure. One can, therefore, assume that the approach of the Eleventh Commission will be along the lines we have discussed above. All that would be required for this process to proceed smoothly would be that the period of forecast covered by the Finance Commission and the period of the next plan are the same.

A radical departure from the existing procedures would have been possible if the Alternative Scheme of Devolution recommended by the TFC had been accepted in its entirety. This envisaged the percentage share of the states in the gross tax revenues of the centre being prescribed in the Constitution and remaining fixed for a period of 15 years. The scheme does not deal with the horizontal distribution among the states of the total share of the states. It can be taken a step further by the percentage shares of the states, or the principles on which such percentages are to be determined also, being prescribed in the Constitution. Justice Rajamannar, in his minute appended to the Report of the Fourth Commission, had stated that: "As regards distribution *inter se* among the several states, the general principles and criteria may be laid down by the Constitution..." Guhan had also suggested that 'robust criteria' for horizontal distribution could now be included in the Constitution. Once the broad criteria for horizontal distribution are prescribed in the Constitution, the remaining exercise will be only to apply these principles to the actual situation from time to time. This can be done by the Planning Commission as part of its plan resources exercise. A Finance Commission will then be required, only once in 15 years, to determine the share of the states in the gross proceeds of central taxes. Since amendments of the Constitution have not yet been taken up, there is still scope for considering radical departures from the existing procedures and institutional set up consistent with the new economic environment and policies.

In other federations, there are institutions like Grants Commissions. The Reserve Bank of India has suggested a State Funding Corporation to deal with market borrowings by the states. If there is such a body it could also deal with examining specific projects proposed by the states with a view to determining their economic viability for purposes of market borrowing as well as for loans from the centre to the states. The role of the Planning Commission will have to be reconsidered in the light of these various changes. The basic issue is not an institutional one; it concerns our approach to fiscal policy in the coming years. In the past, the plan process had either built in a certain amount of deficit in its calculations or had, at least, condoned it after the event. If we are agreed that we are entering a period of fiscal discipline, then the primary and undisputed objective has to be that there can be no deficit on the revenue account, whatever the fiscal deficit may be. Our institutional arrangements must then be such as to be in consonance with this approach.

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Gold Hunger

The country's gold stock at the end of 1997 was nearly four times the official foreign exchange reserves. The continued rapid growth of gold inflow has [illegible] consequences in terms of the scale and functioning of the 'hawala' [illegible], the availability of foreign exchange for other uses and the health of the balance of payments. The factors determining the demand for gold and the sources of finance for importing it therefore merit closer study. 471

Cultural Politics under Globalisation

The intercultural, the multicultural and the global inhabit different yet overlapping narratives that should not be arbitrarily conflated. An exploration of the political dynamics of these phenomena and their implications in the actual making of specific cultural practices: how we situate our inherited and emergent conceptions of culture within the larger map of the world, how we can resist the increasingly sophisticated appropriations of non-western resources through new technologies and treaties, how we read first world interpretations not merely of 'our' cultures but of migrant/immigrant cultures within 'their' frameworks of citizenship, and how we activise a critical and responsible exchange of cultures against the demands of market forces and the insularities of pseudo-swadeshi nationalists. 477

Widening Income Gap

Internationally and intertemporally comparable real income data over the period 1950-1992 yield significant evidence of widening gap in the standards of living of the North and the South. If there is evidence of convergence, it is between the less rich North and the richer North and between the poorer South and the less poor South. 500

Fertility Decline without Development

The southern states are, on the whole, undergoing a fertility transition. Kerala and Tamil Nadu have already achieved replacement-level fertility. The dramatic fertility decline in Andhra Pradesh shows that this state will follow the other two soon. The picture of fertility decline in Andhra Pradesh and a discussion of alternative explanations. 491

Health in Ninth Plan

Against the background of the convincing evidence that the long neglect of public health is dramatically changing the country's epidemiological profile, it is a matter for concern that the Ninth Plan does not pay enough attention to improving public health services. 455

Kautilya and Customs

The tax structure of the day as revealed in *Arthasastra*, Kautilya's 2,300-year old treatise, shows interesting parallels with currently prescribed valuation principles and practices. 449

Pakistan and IMF

The expectation that the resumption of IMF lending will rescue Pakistan's economy is based on fiction, not fact. It will at best provide some breathing space, nothing more. 457

Silent Crime

Banda district in the Bundelkhand region of UP is in the news generally because it is the home of the dreaded dacoit Dadua and his gang, but the crime that escapes notice is the extensive domestic violence against women in the area, one of the most backward in the country in terms of the parameters of women's progress. Story of a campaign by a women's group against domestic violence in the region. 453

Hindutva and Gulf Money

The influx of Gulf money and the growth of new industries and business in the coastal regions of Karnataka have created new identities which have affected old relationships among castes and communities. The rise of Hindutva forces and the recent riots in this area need to be seen in the context of these socio-economic changes. 446

Apex Court on Narmada

THE permission given by the Supreme Court to the Gujarat government to proceed with the work on the controversial Sardar Sarovar Project (SSP) in the Narmada valley, from 80.3 metres does not seem justifiable or logical in the light of the realities regarding the displacement and resettlement caused by the dam. It would also send undesirable signals regarding the displacement of the tribals and all dispossessed people. The Court has given its consent for an 'independent authority' appointed by the state government for 'grievance redressal' and ordered that the authority should file its interim report on the conditions of the SSP oustees resettled in Gujarat till April 9, on the basis of which the court would consider the issue of increasing the height of the dam up to 90 metres, in a hearing fixed for April 15. The Court did not give any directions about increasing the dam height to 110 metres or the height at which the benefits of the dam would accrue. the ultimate proposed height of 139 metres (455 ft). Madhya Pradesh opposed the granting of permission but the Court advised it to solve its dispute with the Gujarat government in other fora. The MP government has decided to file a suit demanding a new tribunal to decide about the project. The interim order came on February 18, at the end of the 'final hearing' of the writ petition filed by the Narmada Bachao Andolan (NBA) which had demanded a comprehensive review of the project on all aspects and the stoppage of the work on the dam, with no furher submergence and displacement. Work on the dam was suspended from January 1995 due to people's resistance as the Court refused to permit the construction on the riverbed of the dam from May 1995.

The permission for the work up to 85 metres will affect the tribal belt of the Narmada Valley most. The villages in Akkalkuva and Akrani tehsils in Maharashtra and Alirajpur in MP would be hit the worst. Even villages in Dhar and Badwani districts would be hit due to the dam. The people have yet to be resettled, but they would face submergence and be compelled to be displaced due to the Court order. The ground situation regarding the displacement and resettlement is totally at variance with what was represented by the Gujarat lawyer. The Andolan counsel Shanti Bhushan pointed out that even in the limited perspective of resettlement up to 85 metres, unless the oustees below the height be resettled fully six months before the construction, submergence cannot be permitted. He also referred to the hollowness of the offers of the resettlement land to the prospective oustees up to 85 metres. He gave instances of the non-availability of cultivable land and other serious shortcomings in the resettlement sites. In such a situation, he said, it would be a violation of the award of the Narmada Water Disputes Tribunal (NWDT) and other legal and constitutional rights.

The court restricted itself to the issue of what it called, 'relief and rehabilitation' of the oustees. Though the NBA has raised relevant issues including cost benefits, environmental impact, along with the displacement and social equity the Court thought it fit to reduce the issues to rehabilitation, that too in a piecemeal way. This time the Court wanted to talk only about rehabilitation up to 90 metres of the height of the dam – as demanded by the Gujarat government. Even here the Court did not think it fit to take cognisance of the abysmal conditions of those who have already been displaced. The first villages near the site, Vadgam and Manibeli could not be resettled fully even after the dam was built and filled in. NBA has prepared painstakingly detailed surveys of the conditions of the resettlement sites in Gujarat and Maharashtra. However, this was not given due importance by the Court, while the government data was taken as the basis for the deliberations. The appointment of the 'grievance redressal authority' may be a redeeming feature, but it cannot compensate for the damage caused by permitting work on the dam. The evaluation of the cost-benefit of the dam, its 'public purpose' becomes imperative in view of the insistence on the part of the government that the project is in the 'national interest'.

The NBA accepts the decisions and hopes that the Grievance Redressal Committee headed by Justice P D Desai will bring out the true picture regarding the existing conditions of the oustees and the overall view regarding the displacement and resettlement. Our future course will be decided after meetings with the villagers in the valley. The people's struggle will continue as it has through all these 15years. The Narmada struggle has been a part of the larger struggle of the depressed classes, tribals, dalits, farmers of this nation to protect their rights, life and resources from the onslaught in the name of development, globalisation, etc. All the organisations and movements along with the conscientious citizens will have to watch the way the courts too have been acting with regard to the democratic and human rights developments.

SANJAY SANGVAI

Mumbai

ECONOMIC AND POLITICAL WEEKLY

Scripting a Detente

WITHOUT a doubt the glitter and the glamour attending the high profile drama at the border-post of Wagah last week was well orchestrated and rehearsed on both sides of the border. Cynics may well comment on the emptiness of the ritual and yet, given the historical circumstances, it is difficult to imagine any attempt at a detente in India-Pakistan relations that would not prompt an emotional response. Certainly both governments, in Islamabad and Delhi, knew this well and the symbolic 'reopening' of the border with the Indian prime minister and his entourage travelling across it on the first bus service between the two countries was meant to capture that emotion, to perhaps hopefully find a way across immovable obstacles in the long and so far tedious process of dialogue. The rhetoric – Vajpayee's "defining moment in south Asian history" – was tailored for the occasion. After all, for both Atal Behari Vajpayee and Nawaz Sharif, the smooth passage of the meeting at the Wagah border was critically important.

Unlike other summits, this meeting was not a culmination, or even a high point, of long rounds of discussions between the two countries. It would be futile then to look for substance of great significance in the various communiques that will be issued. It is the event that is in focus – the highly emotive reception to the Indian prime minister, Nawaz Sharif walking into no man's land to receive him, the Pakistani armed forces band playing the Indian anthem; the moment-to-moment television coverage – it was the stuff of which history is constructed. Nothing has been allowed to mar the event. The Jamaat-i-Islami had called for and enforced with some violence a Lahore bandh, and on the other side, militants attacked and massacred several people in two districts of Jammu. The first has not significantly affected the Indian visit; the second incident found pointed mention but in passing in the Indian prime minister's speech.

For all the symbolism, however, the summit is well grounded in the changing political realities in the two countries and in the region over the last few years. There have been numerous references to the efforts of the past, especially the Shimla Agreement and the need to adhere to its framework. The agreement between the two prime ministers in September 1988 seeking "an environment of peace and security in the supreme national interest of both countries" is being stressed. The SAARC commitments of both countries are also being recalled. While all this may be dismissed as so much rhetoric it is significant that an attempt is being made to root the current phase of dialogue in past such efforts, even as it is sought to transform the nature of the current exchanges. And it is here that Vajpayee and his foreign policy establishment have in a calculated way moved beyond the Gujral formula of 1997 in putting Kashmir on the agenda. Then, in 1997, the BJP in opposition had objected to the proposal to put that issue on the agenda of the talks between the two foreign secretaries. Clearly, there has been much thought given to just how much is to be conceded, even at this stage, without upsetting the fine balance in the political formation at the centre, even while attracting different sections, business and industry as well as the intellectual community and perhaps a small but significant and growing section of educated middle class youth to whom a south Asian matrix may hold appeal.

On the Pakistani side Sharif has been under some pressure from his own party as well as from the foreign policy establishment to seek some movement on Kashmir before the dialogue went any further. On the face of it Sharif is operating from a position of strength, having a majority in parliament. However, he has not been able to carry all elements of the party on his notion of breaking the impasse of hostility and mistrust between the two countries. Moreover, the army brass steadfastly refused to participate in the bonhomie at the Wagah border using the visit of the Chinese delegation as an excuse. At another level, Sharif has been riding roughshod over the press that has turned hostile to the government in Islamabad (to the extent that none of the Pakistani newspapers headlined the Indian prime minister's visit). The government's other actions in recent months have earned it a poor reputation in the area of democratic practice and civil liberties. Given all this, there may be some misgivings that Sharif's initiatives with regard to relations with India, however enterprising, may not garner sufficient support in the long run.

However, apart from the national imperatives and predilections, it is the emerging geopolitical factors which made the summit and its dramatisation not only possible but necessary. While with the Gujral initiative there had been much breaking of the ice, especially on the trade and cultural fronts, the two countries had been forced to play a guessing game on the nuclear issue, neither wanting to give away too much, while ensuring that a perception of threat existed, since May last this situation has changed. It is clear now that both the nuclear establishments have been long prepared for developing nuclear capability and both have the expertise as well as the material to produce nuclear devices of some sophistication in the short term. In effect the May explosions have served to neutralise the imagined advantage on both sides. It is therefore now possible to talk of confidence-building measures in nuclear and conventional fields. As Vajpayee has pointed out, "A small spark can now cause a huge fire. There is no option available to us except peace." It is expected then that the two governments will commit

themselves to reducing the risk of accidental use of nuclear weapons and to improving communications facilities. None of this would have been possible without both countries acknowledging the other's nuclear status. Thus while the exploding of the nuclear devices in May closed forever for India the moral high ground of pursuing and persuading others to follow the path towards a nuclear-free world, the Vajpayee government appears to have chosen to make the best of a lost opportunity by gaining new ground in the arena of international diplomacy.

STEEL INDUSTRY

Not by Protection

IT was entirely predictable. The country's steel producers are going to raise prices by 8 to 9 per cent. The steel producers' move is, of course, closely linked to the government's decision in November last year to impose an anti-dumping duty on steel imports which was followed within weeks by the announcement that import of steel products would not be permitted below specified floor prices. These decisions had followed intense lobbying by the steel producers who, faced with a slump in domestic demand for steel products because of the economic downturn, had complained of dumping especially by exporters from Russia and certain east European countries. Immediately on the heels of the government's actions, the steel producers had revoked the substantial rebates they had been offering buyers till then and this week has come the announcement of the actual raising of prices.

The imposition of floor prices on imports has naturally been opposed by industries using steel products. The Cold Rolled Steel Manufacturers' Association, for instance, has argued that it would result in steep increases in raw material costs of its member units and, interestingly, alleged that these increases would in turn make their products non-competitive vis-a-vis imports of the relevant finished products. It has also been pointed out that the floor prices of imports have been fixed at levels much above those that the government's own designated authority to decide on the levy of the anti-dumping duty had regarded as fair for the purpose of determining the anti-dumping duty.

What the dispute has once again highlighted is the importance of safeguarding the legitimate interests of both producer- and user-industries in dealing with situations of alleged dumping and unfair competition from imports. In the present instance, the case made out by the steel producers is far from conclusive. For one thing, there is no evidence of a flood of steel imports into the country. Government figures show imports during April 1998-January 1999 to have been in fact more than a third lower at 9 lakh tonnes compared to 13.9 lakh tonnes in the corresponding months of 1997-98. The slackening of domestic demand for steel is, of course, indisputable and has forced the main producers especially to cut production by a little over 6 per cent in the period referred to above.

There has also been a sharp fall in international steel prices because of heightened competition among steel producers worldwide. It does not follow, however, that it is necessarily desirable that because of the problems facing domestic steel producers Indian steel-using industries must be deprived of the advantage of internationally available cheap steel. Quite conceivably, and contrary to the visceral reactions of the 'swadeshi' enthusiasts, to do so might be to harm the interests of the economy as a whole and the country. The point is that it is necessary to have institutions which can decide on these issues competently, objectively and transparently. It is a pity that after nearly a decade of economic reforms we still lack such institutions. Certainly, the manner of levy of the anti-dumping duty on steel imports and, much more so, the way minimum floor prices for these imports have been fixed by the government simply do not inspire confidence that the decisions in question are in the national interest.

Anyone who believes that the problems of the Indian steel industry are only those of a temporary slump in domestic demand and dumping by unscrupulous international manufacturers and traders is living in a fool's paradise. Consider the string of mammoth half-finished steel projects in the private sector stuck in the throats of the IDBI and the other financial institutions which can neither spit out nor swallow them. The so-called cost overruns, amounting to hundreds and thousands of crores of rupees, bear testimony to how cavalierly the projects were launched by their promoters and how casually they were accepted for financing by the financial institutions. The picture of the public sector steel industry is hardly any prettier. Perfidious decisions, explainable only in terms of political pork-barrelling, such as to pour huge sums into dead-as-a-dodo Indian Iron and Steel apart, SAIL's own plants are today, after vastly expensive modernisation and expansion schemes (typical examples of the 'soft budget constraint' in operation), all dressed up with nowhere to go, so to say.

To be sure, the situation of the Indian steel industry is not unique. The funny thing is we are told more about how, say, Japanese steel companies like Nippon, Kawasaki, Kobe, NKK or Sumitomo plan to reorganise and restructure themselves to survive and grow in the dramatically altered world steel scenario than about how our own steel makers, in the public and private sectors alike, propose to get out of the pits they have dug themselves into.

ORISSA

Difficult Task

IN an ironic turn of events the Congress high command which had sidelined Giridhar Gamang at the last minute to install J B Patnaik as the chief minister of Orissa in 1995, had to turn to Gamang to tide over what appeared to be an irresolvable factional conflict gripping the Congress Legislature Party (CLP). The alliance which was forged by the then chief minister J B Patnaik and his two deputy chief ministers, Basant Biswal and Hemanand Biswal, to keep out Gamang in 1995, did not take long to crumble under the pressure of an internal power struggle. Soon Hemanand Biswal resigned his deputy chief ministership and had to be accommodated as the pradesh Congress committee chief. While Basant Biswal, though continuing as deputy chief minister in Patnaik's ministry, nursed a grudge towards Patnaik for being stripped of his finance portfolio in 1998. It was only to be expected then that the two leaders would be in the forefront of the campaign seeking Patnaik's dismissal in the wake of Anjana Mishra's alleged gang rape and the series of attacks on Christians in the state.

Having convinced the party high command of the necessity to dislodge Patnaik to stem the party's plummeting fortunes in view of the forthcoming assembly elections, the Congress dissidents nevertheless found themselves unable to mobilise a majority against Patnaik in the CLP. With Patnaik, though removed from the chief ministership, determined to foil the plans of the dissidents to decide his successor, the Congress high command turned to Gamang, whose credentials as an eight-time MP from Koraput are expected to enable him transcend the factional infighting within the state party.

Yet the prime worry for the Congress will be whether Gamang will be successful in recruiting the loyalty of the various faction leaders in the state before the assembly elections. Hailing from the tribal region of western Orissa, his skills will be tested in making the state Congress leaders, who largely belong to coastal

Orissa, work with him. The note of dissent voiced by senior Congress leader Nandini Sathpathy at the appointment of Gamang is an indication that the transition is not going to be smooth. Moreover, Gamang, his clean image notwithstanding, lacks mass following in the state which is reflected in the fact that in spite of his being a tribal, he does not enjoy the support of the tribal MLAs of his party. On the other hand, any appearance of reliance on Patnaik, the only Congress leader with a following in the state, is bound to revive friction within the party. Negotiating his way through the bitterly divided state Congress, while having no mass base of his own, and steering the party successfully through the elections are daunting tasks before the new chief minister. But more importantly, besides improving law and order in the state, speeding up the investigation in Anjana Mishra's case would be something the public at large in Orissa will be looking forward to. For these were the very events that catalysed the political turmoil in the state and forced the central Congress leadership to effect the change of guard.

NDC

A Ritual

THE National Development Council (NDC) which is supposed to be the apex body in the field of national planning met in New Delhi this week, after a gap of over two years. The last meeting of the council was held in January 1997. It is relevant to recall that when the council's composition and functions were revised in October 1967, the government resolution on the subject required that the council should meet "as often as may be necessary and at least twice in each year". This was obviously considered necessary in the light of the tasks supposedly assigned to the council, in addition to the broad objective of promoting understanding and consultation between the centre and the states on planning and economic policies. The four important functions assigned to the council were to (1) review the working of the national plan from time to time, (2) consider important questions of social and economic policy affecting national development, (3) recommend measures for achieving the aims and targets of the national plan, and (4) prescribe guidelines for the formulation of the national plan including the assessment of resources for the plan.

Unfortunately, as was noted by the Sarkaria Commission, in the actual working of the council "formalism rather than systematic and effective participation in forging consensus and commitment to national policies became the dominant feature", giving rise to complaints that plan strategies and policies were not being opened to sufficient national debate and informed consideration, but were rather hurriedly put through. The Sarkaria Commission felt therefore that the council had to be made "to function more effectively and emerge as the highest political level inter-governmental body for giving directions and thrust to planned development of the country". For this purpose the commission recommended that instead of constituting the council under a government resolution, a presidential order under Article 263 should be used so that the council would have "direct moorings in the Constitution".

The Sarkaria Commission also felt that in the interest of healthier centre-state relations the council or its standing committee "should meet regularly to consider important economic issues of national significance in addition to the usual developmental issues". It is unfortunate that the Sarkaria Commission's recommendation on the subject of constituting the NDC and its standing committee and their functioning have not been acted upon with the result that not only has the council been convened most irregularly, but also the procedures adopted for its deliberations have been most perfunctory. Hardly has the council met more than once a year on an average since its establishment in August 1952. Worse, its meetings have been reduced to a mere ritual. It is pertinent to note that the agenda papers for this week's meeting of the council were circulated to the state governments just one week before the meeting and these included the Ninth Five-Year Plan running to 1313 pages in two volumes.

In the circumstances how seriously can anyone take the reported approval of the Ninth Plan by the council?

IRAQ, KOSOVO AND UN

Different Strokes

S Nanjundan writes:

THE UN Security Council has gone into hibernation over the Iraq question for almost two months now since the disclosure of UNSCOM inspectors spying for the US, the unauthorised withdrawal of inspectors and the unilateral airstrikes by the US and UK which have continued todate. The reasons for the strikes have varied from initially the refusal of permission for inspection of Bathist Party headquarters to destruction of identified weapon storage sites to recently Iraqi violation of US-UK unilaterally imposed no-fly zones in the north and south of the country. France, Russia and China initially demurred over the air strikes and the resultant damage to civilians. Physical and social infrastructure has been damaged according to UN sources engaged in the food supply programme in Iraq. Saddam Hussein's dictatorship is perhaps less anti-people than the feudalistic regimes in Kuwait and Saudi Arabia and his treatment of Kurds more democratic and humane than Turkey's. Yet Turkey, Kuwait and Saudi Arabia are western allies, Iraq the sole enemy. The underlying strategic reason for the west is the oil resources of the Gulf and the security of Israel. The strategy works because Egypt, Saudi Arabia and Kuwait regard Saddam as a threat and are happy that the US does the dirty job. What should be of particular significance and worth noting in the post-cold war world order is the impotence of the post-1945 UN security system to meet the challenges of sole superpower hegemonism taking hold at the turn of the millennium.

The approach in the Kosovo issue is quite different. Slobodan Milosevic is no less a dictator than Saddam Hussein. He manoeuvred victory out of defeat in Serbia by becoming president of Yugoslavia which now consists of only Serbia and Montenegro. Kosovo is a constitutionally autonomous province in Serbia consisting mostly of Muslims, ethnically the same as neighbouring Albanians. Here the US approach has been of patient negotiations between the parties assisted by the group of foreign ministers of US, UK, France, Germany and Russia. NATO has taken over after the failure of a system of monitoring by the Council for Security and Co-operation in Europe (CSCE) of a ceasefire instituted last October. The west has been most reluctant to use force because no strategic interest is involved and because Serbia enjoys the support of Russia, and lately of China. This is a dispute within the Christian civilisation, the losers will be Muslims. The UN security system is again not directly involved.

The lesson is that the current world order is of US hegemonism. Strobe Talbott, the US interlocutor in the post-Pokhran Indo-US negotiations, has in a recent article in *Foreign Affairs* stated that India should not be rewarded for violating the nuclear non-proliferation treaty by being given a permanent seat in the UN Security Council. Talbott well knows that India did not subscribe to the NPT. It did not even participate in the conference extending NPT. The real reason for US opposition to India "would be not to build up within the Security Council a group which might successfully checkmate US hegemony: Russia, China, India, perhaps joined by France. The omens are not very propitious for the new millennium.

CURRENT STATISTICS

EPW Research Foundation

In the new national income series, upward revisions have ranged from about 13 per cent in agriculture to 22 per cent in mining and over 30 per cent in some of the services. In contrast, GDP in unregistered manufacturing (–12 per cent), electricity (–1 per cent) and construction (–5 per cent) has been revised downward. Overall, as compared with the old series, the share of manufacturing in total GDP has suffered a decline, whereas those of agriculture and services have shown an improvement. Large revisions in the services sector have occurred because of the inclusion of new items and in unregistered manufacturing because of use of NSS employment data instead of population census data.

Macroeconomic Indicators

Index Numbers of Wholesale Prices (1981-82 = 100)	Weights	Feb 6, 1999	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
All Commodities	100.00	354.2	0.1	4.7	5.4	5.1	5.7	5.3	6.9	5.0	10.4
Primary Articles	32.30	383.2	neg	7.9	5.4	10.2	7.7	5.5	7.0	5.4	12.7
Food Articles	17.39	442.8	0.3	9.0	4.3	12.6	7.5	4.0	9.6	9.8	11.9
Non-Food Articles	10.08	387.3	–0.5	8.4	7.8	8.7	8.8	8.5	3.5	–1.9	15.5
Fuel, Power, Light and Lubricants	10.66	376.1	0.5	–0.3	10.0	–2.1	9.4	11.4	16.9	3.7	2.4
Manufactured Products	57.04	333.6	0.1	3.8	4.4	3.5	3.7	4.0	4.9	5.0	10.7
Food Products	10.14	343.6	–1.1	5.9	6.8	5.5	5.0	5.5	14.1	–0.7	8.1
Food Index (computed)	27.53	406.3	–0.2	8.0	5.1	10.3	6.6	4.5	11.1	6.3	10.6
All Commodities (Average Basis) (April 4, 1998 - February 6, 1999)	100.00	352.1	–	6 9	5.1	7.2	4.8	4.8	6.4	7.8	10.9

Cost of Living Indices	Latest Month	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
Industrial Workers (1982=100)	429.0[12]	-2.1	15.3	6.3	12.9	6.0	8.3	10.0	8 9	9.7
Urban Non-Man Emp (1984-85=100)	345 0[12]	–1.4	12 4	6.2	10.6	5.5	7.2	10.2	8.2	9.9
Agri Lab (1986-87=100) (Link factor 5.89)	305 0[12]	-1.6	15.1	0.8	12.1	1.1	3.8	10.5	7 2	11.1

Money and Banking (Rs crore)	Jan 29, 1999	Variation: Over Month	Over Year	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96
Money Supply (M_3)	937481	11518(1.0)	155801(19 9)	112091(13.6)	79832(11.4)	123451(17.6)	97841(16.2)	72581(13.7)
Currency with Public	165046	4617(3.0)	21742(15.2)	19864(13 7)	11217(8.5)	13095(9.9)	13829(11 7)	17577(17.5)
Deposit with Banks	769303@	7232(0.7)	134415(21.2)	92700(13.7)	68322(12.1)	110036(19.4)	84162(17.5)	55042(12.9)
Net Bank Credit to Govt	382688	2566(0.5)	64085(20.1)	52068(15.7)	29983(10 4)	42000(14.6)	30840(12.0)	35360(15.9)
Bank Credit to Comml Sector	462443	6467(3.5)	50302(12.2)	30253(7.0)	35834(9.5)	55883(14.9)	31659(9.2)	51925(17.7)
Net Foreign Exchange Assets	139985	1887(2.0)	21158(17.8)	13416(10.6)	13331(12.6)	21072(20.0)	23356(28.4)	3109(3.9)
Reserve Money (Feb 5)	252084	5080(0.7)	35462(16.4)	25850(11.4)	16636(8.3)	26248(13 1)	5527(2 8)	25176(14.9)
Net RBI Credit to Centre	154355	3991(0.6)	21619(16.3)	20738(15.5)	12033(10.0)	12915(10.7)	1934(1.6)	19855(20 1)
RBI Credit to Bks/Comm Sector	23144	–974(3.0)	8645(59 6)	7862(51.4)	1247(9.4)	2029(15.3)	–15557(–54.0)	8747(43.6)
Scheduled Commercial Banks (Jan 29)								
Deposits	690269	7188(1.1)	122034(21.5)	84859(14.0)	62636(12.4)	99811(19.7)	71780(16.5)	46960(12.1)
Advances	349829	5805(1.7)	42768(13.9)	25750(7.9)	28660(10 3)	45677(16.4)	24386(9.6)	42455(20.1)
Non-Food Advances	332773	4850(1.5)	38128(12.9)	21179(6.8)	23841(8.8)	40790(15.1)	26580(10.9)	44938(22.5)
Investments (for SLR purposes)	251006	1323(0.5)	40119(19 0)	32301(14.8)	20374(10.7)	28192(14.8)	25731(15.6)	15529(10.4)
Commercial Investments	46693	1678(1.3)	10738(29.9)	13609(37.8)	16544(80.1)	13673(70.4)	4412(29 4)	925(6.6)

@ Includes Rs 17,945 crore on account of proceeds from RIBs, excluding which the year-on-year growth of money supply would be 17.6 per cent

Index Numbers of Industrial Production (1993-94=100)	Weights	December 1998	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Full Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
General Index	100.00	150.0	139.2(3.5)	134 5(6.7)	137.6(6.6)	129.0(5 5)	122.3(12.8)	108.4(8.4)
Mining and Quarrying	10.47	127.0	117.3(–1.1)	118.6(5.5)	122.4(5.9)	115.6(–2 0)	117.9(9.6)	107.6(7.6)
Manufacturing	79 36	154.0	142.6(3 7)	137.5(6.9)	140.5(6 7)	131.8(6.7)	123.5(13.8)	108.5(8.5)
Electricity	10.17	142.4	135.8(6.6)	127.4(6.0)	130 0(6.7)	121.9(3.9)	117.3(8 1)	108.5(8 5)

Capital Market	Feb 19, 1999	Month Ago	Year Ago	1998-99 So Far: Trough	1998-99 So Far: Peak	1997-98: Trough	1997-98: Peak	End of Fiscal Year: 1997-98	1996-97	1995-96
BSE Sensitive Index (1978-79=100)	3355(–2 4)	3219	3438(–2.6)	2783	4281	3210	4548	3893(15.8)	3361(–0.2)	3367(3.3)
BSE-100 (1983-84=100)	1479(neg)	1425	1480(–3.5)	1242	1890	1401	1980	1697(15.9)	1464(–5.5)	1549(–3.5)
BSE-200 (1989-90=100)	343(4.5)	330	328(–3.5)	289	429	314	440	377(14.9)	328(–5.0)	345(–6.3)
S and P CNX-50 (Nov 3, 1995=1000)	976(–2 2)	924	998(–1.4)	812	1213	941	1140	1117(15.4)	968	na
Skindia GDR Index (Jan 2, 1995=1000)	603(–32.1)	608	888	515	1015	765	1320	940(1.1)	930(–4.4)	973(–0.6)

Foreign Trade	December 1998	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
Exports Rs crore	11853	101850(10.0)	92599(8.0)	126286(6.3)	118817(11.7)	106353(28.6)	82674(18.5)
US $ mn	2785	24239(–4.5)	25369(4.6)	33980(2.6)	33470(5.3)	31797(20.8)	26330(18.4)
Imports: Rs crore	14464	132447(20.4)	110018(12.5)	151554(9.1)	138920(13.2)	122678(36.3)	89971(23 1)
US $ mn	3399	31521(4.6)	30141(8.9)	40779(5.8)	39132(6.7)	36678(28.0)	28654(22.9)
Non-POL US $ mn	3004	27102(12.3)	24143(17.0)	32562(11.9)	29096(–0.2)	29152(28.3)	22727(29.5)
Balance of Trade: Rs crore	–2611	–30597	–17419	-25268	–20102	–16325	-7297
US $ mn	-614	-7282	-4772	-6799	-5663	-4881	-2324

Foreign Exchange Reserves (excluding gold)	Feb 12, 1999	Feb 13, 1998	Mar 31, 1998	Variation Over: Month Ago	Year Ago	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95	1993-94
Rs crore	117832	93719	102511	1493	24113	15321	13344	22136	21649	-7302	18402	27430
US $ mn	27704	24155	25976	261	3549	1728	1786	3607	5243	-3690	5640	8724

Notes (i) Superscript numeral denotes month to which figure relates, e g, superscript 12 stands for December; (ii) Figures in brackets are percentage variations over the specified or over the comparable period of the previous year na: not available neg negligible

Revised National Income Series

Table: Gross Domestic Product at Factor Cost by Economic Activity: New and Old Series *(Rs Crore)*

Industry	New Series										Old Series				Excess of New Series over Old Series			
	At 1993-94 Prices					At Current Prices					At Current Prices				At Current Prices			
	1998-99	1997-98	1996-97	1995-96	1994-95	1997-98	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
1 Agriculture, forestry	292060	277418	280179	256096	255522	392134	376091	312791	284042	242438	310144	276852	259064	223705	65947	35939	24978	18733
and fishing	*26.3*	*26.4*	*28.0*	*27.6*	*29.7*	*27.5*	*29.3*	*28.4*	*30.1*	*30.3*	*27.0*	*27.5*	*29.8*	*30.5*	[21.3]	[13.0]	[9.6]	[8.4]
1.1 Agriculture	..	254148	257478	234842	235060	359586	347501	287697	261239	223148	287132	255613	239159	206322	60369	32084	22080	16826
		24.2	*25.8*	*25.3*	*27.3*	*25.2*	*27.0*	*26.1*	*27.7*	*27.9*	*25.0*	*25.4*	*27.6*	*28.2*	[21.0]	[12.6]	[9.2]	[8.2]
1.2 Forestry and logging	..	11571	11183	10808	10652	14469	13535	12365	11704	10216	11293	11267	11154	9836	2242	1098	550	380
1.3 Fishing	..	11699	11518	10446	9810	18079	15055	12729	11099	9074	11719	9972	8751	7547	3336	2757	2348	1527
2 Mining and quarrying	24046	24018	23393	23108	21511	29377	27209	24588	22394	19702	20544	20554	18879	16818	6665	4034	3515	2884
	2.2	*2.3*	*2.3*	*2.5*	*2.5*	*2.1*	*2.1*	*2.2*	*2.4*	*2.5*	*1.8*	*2.0*	*2.2*	*2.3*	[32.4]	[19.6]	[18.6]	[17.1]
3 Manufacturing	195699	185180	173443	161101	140095	239863	215293	192070	155016	126697	222609	198348	159713	127646	-7316	-6278	-4697	-949
	17.6	*17.6*	*17.4*	*17.4*	*16.3*	*16.8*	*16.8*	*17.4*	*16.4*	*15.9*	*19.4*	*19.7*	*18.4*	*17.4*	[-3.3]	[-3.2]	[-2.9]	[-0.7]
3.1 registered	..	126133	116836	108200	93840	161674	144333	128175	103575	83077	143459	126084	101740	81229	874	2091	1835	1848
3.2 unregistered	..	59047	56607	52901	46255	78189	70960	63895	51441	43620	79150	72264	57973	46417	-8190	-8369	-6532	-2797
		5.6	*5.7*	*5.7*	*5.4*	*5.5*	*5.5*	*5.8*	*5.5*	*5.5*	*6.9*	*7.2*	*6.7*	*6.3*	[-10.3]	[-11.6]	[-11.3]	[-6.0]
4 Electricity, gas and	26503	24933	23391	22127	20736	35821	29854	27671	23763	18968	32856	28021	23662	18879	-3002	-350	101	89
water supply	*2.4*	*2.4*	*2.3*	*2.4*	*2.4*	*2.5*	*2.3*	*2.5*	*2.5*	*2.4*	*2.9*	*2.8*	*2.7*	*2.6*	[-9.1]	[-1.2]	[0.4]	[0.5]
5 Construction	50426	49313	47382	46054	42560	67663	62913	55463	46369	40433	68583	58416	47978	40699	-5670	-2953	-1609	-266
	4.5	*4.7*	*4.7*	*5.0*	*4.9*	*4.7*	*4.9*	*5.0*	*4.9*	*5.1*	*6.0*	*5.8*	*5.5*	*5.6*	[-8.3]	[-5.1]	[-3.4]	[-0.7]
6 Trade, hotels and	260693@	164355	155954	143858	127532	221810	197080	164866	135612	110995	167608	142808	118488	98024	29472	22058	17124	12971
restaurants	*23.5*	*15.7*	*15.6*	*15.5*	*14.8*	*15.5*	*15.3*	*14.9*	*14.4*	*13.9*	*14.6*	*14.2*	*13.7*	*13.4*	[17.6]	[15.4]	[14.5]	[13.2]
6.1 trade	..	155120	147305	136087	121546	208512	185317	155307	129067	105576	156577	133529	111208	92163	28740	21778	17859	13413
6.2 hotels and restaurants	..	9235	8649	7771	5986	13298	11763	9559	6545	5419	11031	9279	7280	5861	732	280	-735	-442
7 Transport, storage and	..	79819	74956	68788	63118	107903	92367	77793	68639	57990	88605	75365	66680	56096	3762	2428	1959	1894
communication		*7.6*	*7.5*	*7.4*	*7.3*	*7.6*	*7.2*	*7.1*	*7.3*	*7.3*	*7.7*	*7.5*	*7.7*	*7.7*	[4.2]	[3.2]	[2.9]	[3.4]
7.1 railways	..	11521	11189	10647	9846	14749	13256	12580	11203	9648	13186	12580	11203	9648	70	0	0	0
7.2 transport by other means	..	50144	47895	44513	41706	71921	61051	50158	44854	38314	58830	48521	43617	37066	2221	1637	1237	1248
7.3 storage	..	655	646	652	621	995	928	845	738	608	908	815	696	569	20	30	42	39
7.4 communication	..	17499	15226	12976	10945	20238	17132	14210	11844	9420	15681	13449	11164	8813	1451	761	680	607
8 Financing, insurance, real	129045	119814	110575	102438	94609	155207	139111	123362	102655	89583	108007	94475	78468	67145	31104	28887	24187	22438
estate and business services	*11.6*	*11.4*	*11.1*	*11.1*	*11.0*	*10.9*	*10.8*	*11.2*	*10.9*	*11.2*	*9.4*	*9.4*	*9.0*	*9.2*	[28.8]	[30.6]	[30.8]	[33.4]
8.1 banking and insurance	..	65814	58094	51343	45190	87956	77013	65885	50098	41665	75873	65314	52203	43570	1140	571	-2105	-1905
8.2 real estate, ownership of dwellings and business	..	54000	52481	51095	49419	67251	62098	57477	52557	47918	32134	29161	26265	23575	29964	28316	26292	24343
9 Community, social and	131511	124341	109705	102842	95381	176892	145341	124634	104918	92271	130259	111447	95087	83862	15082	13187	9831	8409
personal services	*11.8*	*11.9*	*11.0*	*11.1*	*11.1*	*12.4*	*11.3*	*11.3*	*11.1*	*11.5*	*11.3*	*11.1*	*11.0*	*11.4*	[11.6]	[11.8]	[10.3]	[10.0]
9.1 public administration and defence	..	58631	48736	46635	43620	83277	64642	56587	48009	43094	60648	52081	44580	39950	3994	4506	3429	3144
9.2 other services	..	65710	60969	56207	51761	93615	80699	68047	56909	49177	69611	59366	50507	43912	11088	8681	6402	5265
		6.3	*6.1*	*6.1*	*6.0*	*6.6*	*6.3*	*6.2*	*6.0*	*6.2*	*6.1*	*5.9*	*5.8*	*6.0*	[15.9]	[14.6]	[12.7]	[12.0]
10 Total gross domestic product	1109983	1049191	998978	926412	861064	1426670	1285259	1103238	943408	799077	1149215	1006286	868019	732874	136044	96952	75389	66203
at factor cost	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	[11.8]	[9.6]	[8.7]	[9.0]

@ includes trade, hotels, transport and communication. Figures in italics are percentage distribution to the total GDP at factor cost.
Figures in brackets are excess of the new series over the old series in per cent. .. not available

SAIL

Crushing Legacy

SLUGGISH demand for steel in the domestic market coupled with competition from imports due to lower international prices and enhancement of supplies in the domestic market resulted in a stress on margins for the steel industry. The performance of the Steel Authority of India (SAIL) was further affected due to additional costs in the form of depreciation and interest charges following the modernisation of its Durgapur Steel Plant (DSP) and other capital schemes and the subsequent increase in working capital needs. The poor growth in industrial production affected demand for steel during the year. With the situation not improving even during 1998-99, SAIL reported a loss of Rs 617 crore during the half year ended September 1998. The public sector company had reported a profit of Rs 54 crore during the corresponding period last year.

IDBI, a major creditor of the company, proposed selling off of SAIL's loss-making subsidiaries like IISCO and non-core businesses like power plants. The financial institution has also recommended hiving off of DSP and the stainless steel unit at Salem in order to generate the needed resources to help SAIL recover. The logic of selling off two of SAIL's core operations is that getting rid of these two loss-making units will immediately improve SAIL's stock value and make what remains a viable option. However, SAIL has spent over Rs 5,000 crore on the DSP unit which now has an installed capacity of 1.6 million tonnes per annum, whereas it would cost only around Rs 3,000 crore to set up a modern green-field steel plant of 1.5 million tonnes capacity Naturally, the transaction would have to take place at a loss. Further, the plant has a massive workforce of around 30,000 when it is possible to run a plant of the same capacity with a labour force of no more than 6,000. Anybody who has to shoulder such a huge workforce will definitely deduct that cost from the price while purchasing the unit. Besides, it would also be difficult to apportion the stock of total debt to the various plants, and similarly mark out each unit's share of the steel development fund loans, in order to arrive at an approximate cost of the DSP. However, the steel company has taken up the challenge and its board has approved conversion of the Rs 5,000-crore loan from the steel development fund to capital reserves and the spinning off of DSP and the Salem plant into separate entities as part of the financial restructuring plan submitted by the IDBI.

VIKRANT TYRES

Higher Market Share

The Mysore-based Vikrant Tyres, which was taken over by J K Tyres almost two years ago, has considerably improved its performance in 1997-98 and has managed to wipe off its accumulated losses. The company saw a 6.5 per cent rise in net sales over the previous year, while operating profit surged by 58.2 per cent during the same period. Lower non-operating loss (down 55 per cent), interest (lower by 20.7 per cent) and depreciation (which fell by 8.1 per cent) helped the company post a net profit of Rs 16.5 crore as compared to a net loss of Rs 5.4 crore in the previous year. The company has now drawn up a modernisation and balancing plan with an outlay of Rs 273 crore for upgrading its truck radials facilities and modernisation of both its plants.

Meanwhile, Vikrant Tyres has entered into a technical collaboration agreement with Continental AG, Germany, which is the world's fourth largest tyre

(Rs lakh)

Financial Indicators	SAIL March 1998	SAIL March 1997	Vikrant Tyres March 1998	Vikrant Tyres March 1997	Zenith March 1998	Zenith March 1997
Income/appropriations						
1 Net sales	1270908	1214547	30212	28366	25567	18380
2 Value of production	1376906	1337468	29887	29454	25762	19294
3 Other Income	49991	59815	706	116	752	646
4 *Total income*	1426897	1397283	30593	29570	26514	19940
5 Raw materials/stores and spares consumed	724525	747785	18368	19692	13633	9076
6 Other manufacturing expenses	161568	131627	2568	2546	5268	5551
7 Remuneration to employees	220132	211397	3074	2813	2162	1590
8 Other expenses	74801	63736	2282	1801	2869	1958
9 *Operating profit*	245871	242738	4301	2718	2582	1765
10 Interest	155376	117948	1897	2392	1134	1159
11 *Gross profit*	105328	128173	2212	–101	1585	900
12 Depreciation	90469	69070	399	434	190	164
13 *Profit before tax*	14859	59103	1813	–535	1395	736
14 Tax provision	1560	7586	167	NA	NA	NA
15 *Profit after tax*	13299	51517	1646	–535	1395	736
16 Dividends	4543	11359	NA	NA	NA	NA
17 Retained profit	8756	40158	1646	–535	1395	736
Liabilities/assets						
18 Paid-up capital	413040	413040	2563	1663	4664	3979
19 Reserves and surplus	442758	433909	8168	582	–32	–1355
20 Long-term loans	1554065	1255261	9127	11855	530	1540
21 Short-term loans	447396	486860	400	400	4488	4922
22 Of which bank borrowings	386138	360800	NA	NA	4488	4872
23 Gross fixed assets	2931738	2695746	16728	14574	9674	8909
24 Accumulated depreciation	868921	794424	9849	9881	5525	5395
25 Inventories	758935	653267	5499	6525	5612	4760
26 Total assets/liabilities	3471076	3184929	27870	18817	15951	15317
Miscellaneous items						
27 Excise duty	191499	196854	6742	7615	2058	1436
28 Gross value added	476993	440744	6468	4745	4945	3765
29 Total foreign exchange income	107933	63989	6956	6084	8423	5699
30 Total foreign exchange outgo	239977	255542	5763	5666	6239	4936
Key financial and performance ratios						
31 Turnover ratio (sales to total assets) (%)	36.61	38.13	108.40	150.75	160.28	120.00
32 Sales to total net assets (%)	44.48	46.91	149.14	195.63	264.94	202.29
33 Gross value added to gross fixed assets (%)	16.27	16.35	38.67	32.56	51.12	42.26
34 Return on investment (gross profit to total assets) (%)	3.03	4.02	7.94	–0.54	9.94	5.88
35 Gross profit to sales (gross margin) (%)	8.29	10.55	7.32	–0.36	6.20	4.90
36 Operating profit to sales (%)	19.35	19.99	14.24	9.58	10.10	9.60
37 Profit before tax to sales (%)	1.17	4.87	6.00	–1.89	5.46	4.00
38 Tax provision to profit before tax (%)	10.50	12.84	9.21	NA	NA	NA
39 Profit after tax to net worth (return on equity) (%)	1.55	6.08	15.34	–23.83	30.12	28.05
40 Dividend (%)	1.00	2.50	NA	NA	NA	NA
41 Earning per share (Rs)	0.32	1.25	6.42	–3.22	25.60	13.50
42 Book value per share (Rs)	20.72	20.51	41.87	13.50	–7.05	–32.66
43 P/E ratio	18.63	NA	2.80	NA	NA	NA
44 Debt-equity ratio (adjusted for revaluation) (%)	181.59	148.21	85.05	528.06	14.19	93.11
45 Short-term bank borrowings to inventories (%)	50.88	55.23	NA	NA	79.97	102.35
46 Sundry creditors to sundry debtors (%)	108.84	98.76	40.77	29.34	165.85	169.66
47 Total remuneration to employees to value added (%)	46.15	47.96	47.53	59.28	43.72	42.23
48 Total remuneration to employees to value of production (%)	15.99	15.81	10.29	9.55	8.39	8.24
49 Gross fixed assets formation (%)	8.75	NA	14.78	NA	8.59	NA
50 Growth in inventories (%)	16.18	NA	–15.72	NA	17.90	NA

NA: means not available.

manufacturer. It will receive state-of-the-art technology which will enable it to manufacture superior quality truck/bus steel radial tyres.

Currently, J K Industries and Vikrant Tyres have together become the largest manufacturer of truck and bus tyres with a 21 per cent market share. The market share of MRF was 19 per cent while that of Apollo was 20 per cent. Vikrant Tyres now plans to increase its capacity from two lakh radial tyres to three lakh tyres as its capacity utilisation has already gone up from 65 per cent to 80 per cent.

ZENITH

Expansion and Modernisation

Zenith, chaired by Yash Birla, is engaged in the manufacture of steel pipes, industrial tools and knives, sockets, acid, drills, reamers, cutters, taps, tool bits and man-made fibre yarn. The company performed well in 1997-98, notching up an increase of 39.1 per cent in net sales. Operating profit soared by 46.3 per cent during the same period. A fall in interest charges (down 2.2 per cent) and a lower increase in depreciation helped the company post a sharp increase in its bottom line (up 89.5 per cent). The company claims that the higher profit was possible mainly due to control of interest charges, further reduction in the cost of raw material, wages and other expenses and by improvement in operational efficiencies. The favourable market conditions for its chemicals have also helped. While steel pipes is the largest contributor to the company's turnover garnering around 43 per cent of total sales, acid brings in another 23 per cent. Chemicals account for around 13 per cent of the company's earnings and man-made fibre yarn is responsible for around 10 per cent.

Production at the company's pipe division more than doubled during the year under review from 24,834 tonnes to 50,493 tonnes. Despite the increase in production, the division has been unable to show a profit. On the other hand, the profitability of the chemical division has been significantly better than last year. After achieving a production of 2,734 tonnes in the previous year, the company surpassed its own record by producing 2,963 tonnes of chemicals in 1997-98. The company has increased the capacity to manufacture H-Acid by 500 tonnes per annum and that for other intermediates by 400 tonnes per annum.

KARNATAKA

Communal Violence in Coastal Belt

Muzaffar Assadi

The coastal regions of Karnataka have undergone dramatic change in their social and economic profile in the last 20 years. The influx of Gulf money and the growth of new industries and businesses have created new identities which have affected the old relationships among the castes and communities. The rise of the Hindutva forces here and the recent riots must be seen in the context of these changes.

WHEN everyone was celebrating new year's eve and preparing themselves for the new millennium, people in the coastal belt of Karnataka particularly Dakshina Kannada (DK)/Mangalore district were in mourning over the death of many people and loss of property in the communal riots. This communal riot was unusual for the coastal belt. DK district is known for tranquillity and modernity. It is one of the fastest growing districts, with its economy linking to national/international market/capital. It has been absorbing western cultures and tastes, much faster than any other districts in Karnataka. Here the literacy rate is very high and development in other fields like education, banking industries, health care, communication and transportation are much better than in any other district in the state. Its economy is a peculiar one – combining the features of urban/cosmopolitan and rural economies – a 'ruruban'.

Mangalore or Dakshina Kannada has hardly witnessed a major communal riot in its history. The first major riot broke out in 1968, centring around the port areas of Mangalore leading to the death of one person. Of late communal tensions have been building up in many places especially after the demolition of Babri masjid and the subsequent 'saffronisation of coastal belt' during the election. These tensions have so far died out within a few days. This is mainly due to the overarching influence of environmental issues in the every day life. Dakshina Kannada in recent years is undergoing environmental stress due to large-scale industrialisation. This industrialisation has brought to surface such issues as the carrying capacity of the district, ecological crises, displacement and rehabilitation, pollution, etc. This has served to temporarily shift the discourse from communalism to development and environment until now.

Communal riots broke out on December 29, 1998 in Chokkabettu in Surathkal, 30 kms north of Mangalore when hundreds of miscreants pelted stones and attacked houses of innocent people. It all started on a trivial issue. A scrap seller from the minority community was alleged to have stolen scrap from a house. The house owner interrogated and took him to task. This was all it took for the situation to snowball into riots. This incident was precipitated by a couple of other incidents – in fact the communal tension was building up in this district almost three months earlier. One incident which received the national attention was the attack on the Evangelical Church – a protestant church – in Kulai in November. It is a small church situated in the midst of a housing colony. Although a sinister campaign was carried out that the church was involved in proselytisation, however, the attack was part of the larger attack on the minorities, principally Christians elsewhere in India. Incidentally the people who were involved in vandalisation of the church were also involved in the subsequent communal riots in the surrounding areas. The second incident was the eve teasing of a college girl allegedly by a Muslim boy. The subsequent police action of arresting those who were involved in brutally attacking the boy triggered off a major controversy. Road blocks were resorted to demanding the release of the arrested. A third incident was the act of tearing off a banner announcing a yakshagana performance and its subsequent stoppage. However these were all contributing factors triggering the riots.

The communal tensions soon spread to other places. In Surathkal it spread to several villages: Krishnapura, Hosabettu, Thandabailu, Kana, Katipalla, etc. It even spread to Mangalore city and other neighbouring taluks like Puttur and Bantwal. In this incident the government report claimed the death of eight people, however an independent enquiry put the toll at 16. Of the eight, six were Muslims and two Hindus. The same government report documented the attack or destruction of 165 houses/business establishments in which a majority (98) belong to people of minority communities and 67 to people of the majority community. Four religious institutions of the minorities were also attacked. The government estimated that property worth Rs 50 lakh was destroyed which is however an underestimate according to some reports. However more than 100 people were injured in stabbings and attacks. About 70 rioters were arrested.

This communal riots which petered out within a week is peculiar in many ways. First, most of the rioters had earlier participated of engineering communal riots. In fact, they had been involved in the Idgah incident in Hubli, the Bababudanagiri incident in Chickmagalur and also in the vandalisation of church more recently. Rumours played a dominant role. These rumours were pertaining to "increasing police atrocities", "employment of or arrival of outside forces", "rape of women", and "attack and desecration of religious places" These rumours were precipitated by the generation of a fear psychosis that the communities were either being marginalised or were under threat. In addition, the riots were not confined to urban areas alone; rather they spread to rural areas especially those villages which are close to national highway. In a majority of cases looting was confined to petty shops, like vegetables, grocery, painting shops, telephone booths, cloth shops, etc. The rioters cared little for the curfew imposed in these areas showing the callous and biased attitude of the police and the administration. The administration knew about the tensions developing but did nothing to contain them. The number of rioters varied between seven and 200 and they appeared to have

selected those houses/shops which were in isolated areas where not much resistance was expected. While attacking, the rioters used different tactics. They would divide themselves into four groups, with one group clashing with the police and other three systematically attacking innocent people. The rioters did not target any particular age group or sex or weaker sections among the communities. In addition they did not adopt 'rape' as a strategy to further vitiate the communal riots or atmosphere. In many places looting or destruction was carried out in broad daylight with the knowledge that their identities would be known. The riots were also used as a means to solve personal problems of individual eviction such as tenants, non-payment of dues, or business rivalry. Most of the deaths occurred either due to police firing and or stabbing. Most interesting are the categories involved in the communal riots. The majority of rioters came from backward castes, partly dominant caste and ethnic Muslim group called Bairys or Mopillas.

Social Change in Coastal Regions

There are reasons why Dakshina Kannada district, and other coastal districts like Udupi and Uttara Kannada have become communally sensitive districts. This has to be located historically, especially the way the coastal best has developed over the years and the way it has provided spaces for new categories to emerge. Historically the coastal belt was part of Presidency areas and thereby it benefited from the colonial administration even though it was at the periphery of colonial rule or administration. Most of tho forces of modernity entered this district through its linkages or interaction with colonialism This often reflected in the de-territorialisation of the population to far off places in search of jobs or employment; it also reflected in the inauguration of new industries like tiles, cashewnuts and fishing. Interestingly colonialism in the agrarian structure introduced the famous Thomas Munroe doctrine of Ryotwari system which rather than destroying, reinforced the feudalism. In other words colonialism while introducing capitalism also retained or perpetuated feudalism or pre-capitalism, leading to uneven, lopsided development in agriculture. It was during the colonial period, and subsequently uptil the late 1970s, that the land was controlled by dominant castes like bunts or nadavas; the economy or the business was in the hands of upper castes mainly konkani brahmins who had earlier escaped from the Portuguese persecution; and finally social institutions like education under the control of Christian konkanis. In other words there was not much of the contradictions among these categories either for capturing the market or the economy. Each had its own defined and clear-cut space to operate. However, the contradictions existed at a different level – it was growing from below, especially between backward castes who were operating as tenants of the dominant castes; and it was often manifested in the form of demanding effective implementation of land reforms, abolition of landlordism, tenancy rights, reduction of rents, etc. Meanwhile the conditions of Bairy community was not much different from the backward castes except that the former was operating as an autonomous group as they were not linked to land and were carrying on petty businesses.

However, the coastal belt underwent a complete transformation after 1970s with the effective implementation of land reforms, the Gulf boom, the establishment of a large number of new industries and the expansion of banking brought to centre stage new issues. This provided spaces for a large number of new categories belonging to different communities to compete with each other. Land reforms while destroying the popular 'Guttenar' system of the dominant caste released a large number of backward castes from dependency. This also had other effects: a majority among the dominant caste who found their economy collapsing opted to move away to far off places like Mumbai wherein they established the popular 'Udupi hotels', although the linkages with their native place were retained or perpetuated through cultural reproduction of symbols, signs and festivals like 'Naga Mandala', 'Bhoota Kola' and 'Kambala'. Those who were left behind also entered into new ventures like banking and other businesses including the philanthropic activities like education. This too closed the option for the backward castes to compete with them – they had to contend with small businesses and small markets. However, the larger challenges came from the Bairys who were not only entering into the small businesses but also into the bigger businesses – especially for the backward castes like billavas/poojaris and mogaveeras (a community of fishermen) as well as to the dominant caste like bunts. In other words the communal riots has to be seen in the context of larger emerging tensions among caste and community groups.

Bairys (a name derived from 'bepari' or merchant) are relatively new entrants in the larger economy. They are an ethnic Muslim group whose mother tongue is a curious mixture of Malayalam and native dialects. They have retained and perpetuated their distinguishing cultural practices Most interesting is the contribution of this ethnic group to the tradition of Dakshina Kannada, mainly to 'Bhootaradhane' (worshipping the dead). One among them is popularly called 'Ali Chamundi Bhoota' and another is 'Bobbarya Bhoota' – the former is well known among castes like the billavas/poojaris, mogaveeras. The Bairys' entry into larger economy was prompted by the Gulf boom of mid-1970s and the new industrialisation. The Gulf boom pumped the money into new businesses. Paradoxically the Gulf boom also created conditions for the emergence of neo-communitarian categories (see Muzaffar Assadi 'Communal Riots: Communal or Communitarian', *EPW*, October 1, 1997). Meanwhile cultural constructionist also came to the centre stage, mainly in the literary field (Boluvar Mohammad Kunhi, Sara Abookkar Fakir Mohammad Katpadi, etc) who however had little role to play in the larger politics of the community except that their arguments are often appropriated by the hindutva forces to show up the weaknesses of the community. In fact in the communal riots the active role was played by the neo-communitarians both to define the 'soft target' and to define the riots as an "attempt to eliminate or marginalise the community including their economy". In addition they have been asserting themselves as a community in conferences and interacting participating in politics by demanding reservation benefits for their children, establishing an academy for Bairy language and attempting to create a recognising distinct identity for Bairy culture and tradition, etc.

In Dakshina Kannada the Bairy community comprised 15 per cent of the total population, of which 90 per cent of them have settled down in Mangalore taluk (1,33,554), followed by Bantwal (1,10,320), Puttur taluk (75,376) and Belthangady taluk (62,930). These are the taluks prone to communal riots. In other taluks like Udupi (27,751), Karkala (12,775) and Kundapur (7,588) they are

numerically in a small group. In Mangalore taluk alone, of which Surathkal is a part, they constitute 38.43 per cent of population. In addition, there are 74,860 Bairy households in the whole district, with each household having an average of seven children (*Bairy Verte*, January 1, 1998). The numbers are important for the reasons that they helped the construction of a discourse that the community's population is multiplying at the cost of majority community's. Moreover in 51 gram panchayats Bairys have more than 500 households. In Mangalore taluk alone there are 15 gram panchayats where they have more than 500 households. This is one of the reasons why the communal riots spread to the rural areas like Katipalla, Kana, Kulai, Munchu, etc, in Surathkal. Some of the villages are resettlement areas for the people displaced due to industrialisation. Earlier these areas saw the environmental movements growing against the paltry compensation, unfulfilled promises, displacement, non-absorption in the industries, etc. Here the images of displacement and deprivations are very strong. The same areas have now become communally sensitive areas.

This was further compounded by the general economy of the community. Nearly 3.6 per cent of population work as coolies; 27 per cent are engaged in beedi industry; 3.3 per cent as drivers; 15-20 per cent involved in petty businesses, including 10-12 per cent in textile and grocery; 15 per cent in middle level businesses which includes hotels, spice, cashew or betel-nut economy; and 0.1 per cent involved in big businesses or the larger economy linking to international capital. Interestingly 70 per cent of these categories are located in Mangalore alone. Furthermore nearly 10 per cent have settled down in the Gulf and 30 per cent of population have spent more than 10 years in west Asia. According to 1996 statistics individual per capita income stands at Rs 3,860, much higher than of other backward castes. The average household income per annum is Rs 26,401. This is once again higher than the average household income of other communities. Neo-communitarian identity once again reinforced with the construction of a large number of religious places, including mosques, madrassas and 'yuvaka madala'. In Dakshina Kannada district there are 503 registered mosques, 703 madrassas and 713 yuvak sanghas. All these helped in constructing a discourse about "relative deprivation and marginalisation" of the community. For example mogaveeras – a fisher community – suddenly found that entering into the larger market was not an easy one, as the market was already being controlled by the Bairys. Similarly also in other businesses or markets like timber, cashew, spice, betel-nuts, etc. The majority of those involved in the communal riots belonged to these upwardly mobile categories and castes. Others also participated in the riots. Their participation was part of the larger politics of consolidating their communal identity. There was a growing apprehension that backward castes including the minorities were once again shifting their political loyalties to the centrist forces, namely, Congress. A complete division or conflict between the backward castes and the minorities was but essential to the communal forces, once again to reaffirm their hold over the coastal belt. As intense backlash from the minorities (or from the centrist forces) was desired to realising the social categories for communal politics. This is why minorities mainly Muslims and Christians became 'soft targets' of the communal forces (led by the Sangh parivar). Nonetheless, with the increasing potentiality for development, competitive economy and the larger linkages, the recurrence of communal riots in this coastal belt is more a possibility than in earlier decades.

[Thanks to Laxminarayana, the PUCL group and a host of victims of Surathkal.]

Did India Give the World Its First Customs Tariff?

C Satapathy

A closer examination of Kautilya's 2,300-year old treatise, the Arthasastra *for an understanding of the tax structure of the day reveals interesting parallels with currently prescribed valuation principles and practices.*

WRITING in the *CCC News* in its 40th anniversary issue (January 26, 1993), H Asakura, the then director of Nomenclature and Classification in the Customs Co-operation Council (since renamed as the World Customs Organisation) at Brussels points out that the customs tariff of Palmyra in AD 136 provided different rates for different commodities, thereby ensuring the birth of customs tariff and the customs tariff nomenclature. Asakura, who has a special interest in the history of customs and tariffs, has traced the history of customs tariff of Palmyra in some detail. Palmyra, a beautiful Oasis city in the Syrian desert was also known as the 'bride in the desert' and was granted the exceptional privilege of collecting municipal customs duty by the Roman emperor Hadrianus. The customs tariff of Palmyra was a part of the municipal tax law and was engraved on a stone in Greek and Aramaic. Some of the passages quoted by Asakura are reproduced here:

> The person in charge of the customs farm himself shall levy a duty in respect of each camel-load, three denarii for each camel load entering Tadmore (Palmyra), and three denarii for each camel load leaving Tadmore
>
> Wool dyed purple. For each fleece imported or exported, three denarii.
>
> Per donkey-load of aromatic oil in alabaster jars seven denarii at importation and exportation.
>
> For salted goods carried by donkey, the person in charge of the customs farm shall collect three denarii per load at importation and exportation.

This tariff basically provided for assessment of goods either by camel-load or donkey-load, the specific rates being three denarii for most items and seven denarii for costlier aromatic oil. The greatest merit of such a tariff must have been its simplicity which was easier to administer.

It was Asakura's article that prompted the present study of Kautilya's *Arthasastra* insofar as it relates to customs and excise taxation. Few may know that for centuries Kautilya's classic written 2,300 years ago around 300 BC was not available to the scholars. It was only in 1909 that R Shamasastry published the text of *Arthasastra* from a copy of the manuscript received by him from a Tanjore pandit. There are two English translations of the work, the first by R Shamasastry in 1915 and the other, an extremely valuable and thorough translation of various available manuscripts, by R P Kangle in 1963. A more recent translation by L N Rangarajan of the Indian foreign service has also generated considerable interest in this classic all over again.

For comprehending the tax structure in Kautilya's days, it is necessary to have a brief idea about the organisation of the economic activities of the times. Agriculture ('krsi'), cattle-tending ('pasupalya') and trade ('vanijya') were the three main aspects of the economy ('vartta', a word derived from 'vritti', livelihood) (1.4.1). Agriculture yielded the most important part of the state revenue in the form of 'sita', i e, produce from crown lands (2.15.1) and 'bhaga' or 'sadbhaga', i e, one-sixth of the produce of other lands (2.15.3). If land was sold, the state received sales tax (3.9.5-6). Besides the land tax, there was a water rate ('udakabhaga') (2.24.18) with exemption provided for new constructions and renovation of tanks (3.9.33). Forests and forest produces entirely belonged to the state.

Cattle-tending was another important vocation which the state nurtured. But by way of revenue, it seemed to contribute much less compared to agriculture and trade. Only direct income was from the stateowned herds. However, in times of emergency, state could demand one-tenth of the cattle, one-sixth in the case of goats and other small animals and as much as one-half in the case of fowls and pigs (5.2.27).

Trade was considered to be a very important economic activity. All trade was state-controlled with the superintendent of trade ('panyadhyaksa') in charge. He was to fix prices of commodities taking into account investment of capital, interest charges, duties paid, rent, etc (4.2.36). A profit of 5 per cent on indigenous goods and 10 per cent on foreign goods was to be allowed with provision for heavy fines for exceeding these limits (4.2.28-30). The panyadhyaksa was also to prevent slump in prices by market intervention (4.2.33-35). A superintendent of markets ('samsthadhyaksa') was to look after the customer's interest by preventing frauds in weighing, supply of inferior goods, etc (4.2.3).

Apart from private trade, state trading was extensive. State goods ('rajapanya') included indigenous ('svabhumija') as well as foreign ('parabhumija') goods. Indigenous goods were to be sold at one place, foreign goods at different centres. The panyadhyaksa was to arrange for the export of state goods. He had to consider expenses of journey, duties, and prevailing prices at different places and determine whether any profit could be made. He also had to consider the possibility of bartering state goods with foreign goods ('panyapratipanya') (2.16.18-24).

Import of goods from foreign lands was to be encouraged. Exemptions from duties could be considered to shippers and caravans bringing foreign goods, so that they might be enabled to make a profit. Immunity from suits in connection with money matters could also be considered to foreign traders (2.16.11-13)

Provision of routes for trade was an important state activity. Kautilya favoured land routes to waterways (7.12.18-20) as well as the southern route to the northern as the same was more profitable and brought in gold, pearls, diamonds and conch-shells (7.12.22-24).

The officer at the frontier post was to collect a kind of road cess called 'vartani'. In return he had to ensure safe passage from the frontier to the custom house inland. The rates of vartani were as follows: (a) one pana and a quarter for a cart-load of goods; (b) one pana for a single-hoofed animal; (c) half a pana for cattle; (d) quarter pana for small animals; and (e) one masaka for a shoulder-load (2.21.24).

He had to make good if anything was lost on the way (2.21.25). As such, the road cess was a kind of insurance against any loss on the way. The frontier officer had to send on the caravan coming from the foreign land to the custom house after appraising the value of the goods and giving an identity pass and stamp on the goods (2.21.26).

It would seem that the tariff for road cess was fixed on a rational basis and covered cart-load, animal-load and head-loads of merchandise. In addition to road cess 'ativahika' or escort charges (2.16.18, 2 28.25) were also prevalent perhaps for providing armed escort from the frontier to the capital. When goods were brought by waterways, they were to pay duty at the ports and also rent in case of using boats maintained by the state (2.28.3-5).

When ferries operated on rivers forming the boundaries between two states, the recovery of customs duties, road cess and convoy charges from foreign merchants was to be made at the ferry wharf (2.28.25).

The state also controlled the industrial activity and mining through state officials such as superintendents of gold and silver ('suvarnadhyaksa'), of other metals ('lohadhyaksa'), of precious stones ('khanadhyaksa'), of textiles ('sutradhyaksa'), of salt mines ('lavanadhyaksa'), etc. Manufacture, sale and inspection of standardised weights and measures and balances was considered very important and was in the charge of pautavadhyaksa.

As in the case of any modern economy, great importance was attached to currency Manufacture of coin was in the charge of laksnadhyaksa while the 'supadarsaka' (the inspector of coins) looked after the circulation of currency. Silver coins were in the denominations of 1 pana, 1/2 pana, 1/4 pana and 1/8 pana each containing 11 parts of silver, 4 parts of copper and 1 part of some hardening alloy Copper coins were in the denominations of 1 masaka (1/16th pana), 1/2 masaka, 1 kakani (1/4 masaka) and 1/2 kakani each containing 3 parts of copper and one part of hardening alloy (2.12.24).

Commodity Taxation

There was a definite rule that goods were not to be sold at the place of their production. Fines were prescribed for purchasing metals, etc, directly from the mines, grains directly from the fields, or flowers and fruits, etc, directly from the gardens (2.22.9-13). The object was obviously to control trade so that duty was not evaded. Duties were to be collected at the city gates, each of which was to have a custom house or toll house ('sulkasala') with four or five officers under the charge of the collector of customs and tolls ('sulkadhyaksa'). The collector's duty was to establish the custom house and the flag facing the east or the north in the vicinity of the big gates of the city (2.21.1-2). The frontier officers were to direct imported merchandise to the custom house after duly stamping the same. The officers at the city gates were to record the particulars of the merchants and their merchandise and verify the stamp. For goods without a stamp, the fine was double the duty, for forged stamp eight times, etc (2.21.3-6).

Traders were to declare the quantity and the price of the merchandise at the foot of the flag of the custom house "who is willing to purchase these goods, so much in quantity, at this price?" (2.21.7). After three proclamations, the trader should give it to those who asked for it. In case of bidding the higher amount along with the duty went to the king (2.21.8-9). If for fear of duty, a merchant understated the quantity or the value, the excess was to be confiscated or the merchant would pay a fine equal to eight times the duty. Similar penalties were prescribed for showing a sample of low value or for concealing high-valued items by low-valued items in a package (2.21.10-12). If a trader increased the price beyond the actual price for fear of competition from rival traders, the king would receive the enhanced amount or double the duty. If the customs officials assisted the traders in concealing their offences, eight times that amount would be penalty on them (2.21.13-14). Fine for going past the flag of the custom house without paying duty was eight times the duty (2.21.16) and secret agents were to detect such evasion (2.21.17). Thus, there was provision to curb both under- as well as over-valuation. The duty was to be imposed on the real actual value. Asakura rightly points out that the valuation practice in Kautilya's time was in conformity with the spirit of GATT Valuation Principles requiring the actual value to be the basis of customs value.

The Tariff and the Exemptions

After enumerating the duties of the collector of customs and tolls, establishment of custom house or toll house, manner of valuation, etc, in book 2, chapter 21, Kautilya proceeds to discuss the tariff in the next chapter 22. The title of the chapter is 'sulkavyavaharah'. Shamasastry has translated the title as 'Regulation of Toll Dues' whereas Kangle's translation reads as 'The Tariff of Duties and Tolls'. In the beginning, the general nature of the levies have been described: (a) 'Bahyam avyantaram cha atithyam' (2.22.1). (b) 'Niskramyam pravesyam cha sulkam' (2.22.2).

Shamasastry has translated thus:

Merchandise, external (bahyam, i e, arriving from country parts), internal ('abhyantaram', i e, manufactured inside forts), or foreign ('atithyam', i e, imported from foreign countries) shall all be liable to the payment of toll alike when exported ('niskramya') and imported ('pravesyam').

For this construction, 'cha' should have come after atithyam. Kangle feels atithyam probably referred to a kind of internal tax or excise duty on goods (internally traded between city and country) and sulka refers to a customs duty on foreign trade, i e, on goods imported and exported. Kangle also concludes that the rates for excise and customs duties did not differ. The tariff was as follows: (1) On goods coming in the duty shall be one-fifth of the price (2.22.3); (2) On flowers, fruits, vegetables, roots, bulbous roots, fruits of creepers, seeds, dried fish and meat, duty is one-sixth (2.22.4); (3) On conch-shells, diamonds, gems, necklaces of pearls and corals, valuation and fixing of duty is to be done by experts in the line acquainted with the time, cost and finish of such production (2.22.5); (4) On fibrous garments ('ksauma'), cotton cloth ('dukula'), silk yarn ('krimitana'), armours, sulphate of arsenic ('haritala'), red arsenic, antimony, vermilion, metals of various kinds, ores, sandalwood, aloe, spices, garments, skins, ivory, bed spreads, coverings, silk cloth ('krimijata'), and on products of goats and rams, duty is one-tenth or one-fifteenth part (2.22.6); and (5) On clothes ('vastra'), four footed and two footed creatures, yarn, cotton, perfumes, medicines, wood, bamboo, barks, leather goods and earthenware, grains, fats, sugars, salts, wine, cooked food, etc, duty is one-twentieth part or one-twentyfifth part (2.22.7).

The translators, perhaps being unfamiliar with the working of a tariff have interpreted as at (1) above that a flat rate of 20 per cent *ad valorem* duty was chargeable on all imports. This does not appear to be correct. Firstly, there is no mention that the other rates that follow are only for exports or for excise duty. Secondly, (3) above clearly provides that for gems and jewellery no fixed rate is provided but value and duty for such items are to be determined by jewellery experts. It is significant that the rates mentioned at (2),(4) and (5) above range from 4 per cent (one-twentyfifth) to 16.67 per cent (one-sixth) and are all lower than the general rate of 20 per cent (one-fifth) mentioned at 1 above. As such, the only logical interpretation is that (1) above fixes a general tariff rate of 20 per cent *ad valorem* duty on all foreign goods and all country goods entering the city through the customs gate. About 50 items provided with lower duties specifically at (2),(4) and (5) above are to be taxed accordingly at lower rates. Goods specifically not mentioned are to be charged at the higher general rate of 20 per cent thus ensuring that no item entering the city gates from outside escape the levy on account of not being specifically enumerated.

As for export duty and excise duty on city goods going out through the customs gate in the absence of a general rate, only about 50 items specifically enumerated would be levied the duty at the same rates as in the case of goods entering the gates. The rationale for such a scheme appears to be in line with many modern tariff schedules that levy duty on all imported goods but only on specifically enumerated export goods. For gems and jewellery, a general duty rate of 20 per cent would obviously be too high and hence they are to be taxed on expert appraisement in each case.

Thus interpreted, the Kautilyan tariff seems to be a detailed tariff for import, export and excise duty purposes, classifying the products. Moreover, the levy being proportional to the value, it appears to provide a very progressive tariff structure. Moreover, it is at least 450 years older than the tariff of Palmyra and perhaps the oldest tariff of the world.

Kautilya's tariff also had another feature of modern tariffs as it provided exemptions for specified goods. It exempted: (i) goods intended for marriage, (ii) marriage gifts accompanying the bride, (iii) goods intended as gifts, (iv) goods required on the occasion of a sacrifice or a ceremony or a birth, and (v) goods used in various rituals like worship of the gods, tonsure rites, initiation for Veda study, hair-cutting rite, consecration for a vow, etc (2.21.18). This was accompanied by punishment for false declaration. There also appeared to be provision for levying a gate duty, a kind of surcharge on duty at the rate of one-fifth of the duty but the same could be remitted if the goods were of benefit to the country (2.22.8). Kautilya's treatise was not for any particular Indian state but a code that took into account the practices followed in different states in the subcontinent. This would perhaps explain mention of two nearly equal duty rates at (4) and (5) above.

[A version of this article was earlier published in the January-March 1993 issue of the in-house magazine *Indian Customs and Excise*. For references from the *Kautilya Arthasastra* see R P Kangle (1965), Motilal Banarasidas Publishers, Delhi, 1997, reprint.]

Money and Finance in the Indian Economy

Sagar Koparkar
Manas Paul

The progressive integration of India's financial markets with those worldwide has implications for both traditional concerns such as inflation and growth, the distribution of income and the value of the rupee as well as for new areas of enquiry such as the state of the financial markets and links between the financial and real sectors in an era of highly mobile capital. Report on a conference.

AS India becomes more and more of an open economy with a steady rise in the share of GDP originating in the traded good sector and its financial markets get more and more integrated with financial markets worldwide, it becomes necessary to understand the implications of such changes. There are implications both for traditional concerns such as the rates of inflation and growth, the distribution of income, the value of the rupee as well as for new areas of inquiry such as the state of the financial markets and links between financial and real sectors in an era of highly mobile capital. To bring together researchers actively working on these ideas IGIDR hosted a conference on 'Money and Finance in the Indian Economy' in early December. The conference was inaugurated by C Rangarajan who also gave a keynote speech. The function was presided over by Bimal Jalan.

Rangarajan delivered a comprehensive talk on the controversial subject of monetary policy. Monetary targeting is controversial in the context of striking a balance between price stability and high growth rate. Empirical and theoretical literature says that in the long run the objectives of price stability and growth do not necessarily conflict. In fact, price stability is a means to achieve sustained growth and avoid speculation in investment decisions. Price stability is also needed for exchange rate stability and for keeping nominal interest rates close to world levels.

Rangarajan warned that the effect of investment financing by money creation is significant only in the short run. In the long run, it can have an adverse inflationary outcome. This could be worrisome as it would lead to deterioration in the current account deficit. Rangarajan stressed the need to identify the level of inflation at which the adverse consequences really begin to set in.

In his view, money supply should be regulated keeping in view the expected increase in real output and the acceptable order of increase in prices. This is against narrow monetarism that money supply should grow at a certain fixed rate irrespective of the real rate of growth. Rangarajan made some remarks on targeting interest rate as practised in most industrialised countries. Manipulation of the interest rate in these countries does not have the objective of determining the level of the interest rate but controlling prices. So the interest rate could become an intermediate variable as the inflation rate comes down and fluctuates in a narrow range. He also discussed the salient aspects of monetary policy during his tenure as RBI governor.

Exchange Rates and Currency Crises

Sugata Marjit and Byasdeb Dasgupta in their paper 'Exchange Rate and Exports from India: A Fresh Look at the Official Statistics' tried to explain the phenomenon of immediate exports growth after liberalisation and its ultimate slowing down. They argued that the immediate increase in exports after the liberalisation process started more due to the increase in export declaration, whereas exports were underinvoiced before due to the presence of high black market premium.

In their paper 'Towards a More Rationál IMF Quota Structure: A Tentative Partout in the Direction of Creating a New Financial Architecture', Raghbendra Jha and Mridul Saggar, questioning the existing IMF quota formula, discussed the need to review it on the basis of giving due weights to the size of the economy along with the efficiency parameters. They suggested three alternative sets of formulas. The first was based on determinants of size variables and of the current account variables for international trade and payments; the second on formulas where macro-economic stabilisation parameters were introduced to capture member countries' relative positions in respect of lowering inflation and fiscal deficits; and the third set incorporated capital flow as an additional determinant. Their calculations showed that India's rank can improve to 5th from the present 13th according to the 10th and 11th General Review of IMF Quotas.

Partha Sen's paper 'Non-uniqueness in the First Generation Balance of Payments Crisis Models' showed that Paul Krugman's model of a speculative attack ('A Model of Balance of Payments Crisis', *Journal of Money, Credit and Banking*, Vol 11, pp 311-32) is riddled with multiple equilibria, i e, the time of attack is not uniquely determined. A continuum of paths to a floating regime exist. The only difference across periods is the amount of foreign exchange left with the central bank and hence the proportion of foreign exchange reserves that will back the money supply under a floating rate regime. How much reserves the central bank holds or is able to borrow is not germane to the issue of collapse (as long as the fixed exchange rate is expected to collapse eventually).

The central bank may hold 'large' stocks of reserves but not 'enough' to maintain a fixed rate regime.

Macro and General Equilibrium Models of the Indian Economy

C W M Naastepad presented a multi-period real-financial CGE model for India. The model goes beyond the extant literature by introducing credit for working capital as well as investment and allowing for credit rationing with real and financial market conditions being determined endogenously. The paper identified two supply constraints: shortages of credit and of infrastructure affecting growth.

In a theoretical set-up the paper 'On Interest Rate Policies' by Romar Correa examined the relative merits of the stabilising role of monetary policy in two cases. First, the monetary authority operates the discount window. Second, the central bank enters as a player with the interest rate on government paper as a strategy. The paper confirmed evolutionary stability only in the second case.

The paper entitled 'An Econometric Model for India with Emphasis on the Monetary Sector' by T Palanivel and Nobel laureate L R Klein had three objectives: first, to build a monetary sub-sector model of India; second, to estimate the model with pre- and post-reform data; and third to evaluate the impact of changes in trade, fiscal and monetary policies on output, inflation, trade flows, financial flows, structure of interest rates and exchange rate for the period 1997-98 to 2001-2002.

FDI Flows and Exchange Rates

Manas Paul in his paper 'Some Findings on the Issue of Real Exchange Rate Targeting in India' studied the long-run behaviour of the Indian real exchange rate in a cointegrating VAR framework over the period 1964-94. The study showed the exogeneity of real exchange rate to any deviation from the long-run cointegrating relationship amongst real exchange rate and its fundamentals. This indicates the possibility of real exchange rate targeting. Endogeneity of government consumption to the cointegrating vector suggests that government consumption should not be used to attain internal and external balance concurrently.

In the paper 'Monetary Policy for Sustainable External Value of Rupee', B M Jani stressed the importance of RBI intervention in the foreign exchange market to maintain the real exchange rate at an appropriate level. C S Despande in his paper 'The Role of Foreign Direct Investment in Indian Economy' discussed the relevance of Foreign Direct Investment for India.

Financial Repression and Liberalisation: Theory and Practice

E D'Souza in his paper 'Financial Intermediation and Liberalisation under Asymmetric Information' discussed the importance of dealing with micro-economic problems associated with the institutional weakness of the financial system, prior to liberalisation of interest rates on government paper. Mahendra Pal in his paper 'Financial Development in India: An Empirical Test of the Mckinnon-Shaw Model' utilising 2SLS and OLS techniques found statistically significant results in the support of McKinnon's complementarity hypothesis in India, using time series data for the period 1970-93. G Darbha in his paper entitled 'The Effects of Financial Constraints on Inventory Management' examined the sensitivity of inventory holding behaviour of different types of firms to changes in internal finance over different phases of the business cycle. It showed that the cash flow effects are significant for smaller firms than for larger ones and the difference is more pronounced during the low growth phase.

Money Supply, Demand and Links with Fiscal Sector

The paper by K Chaudhari, S Chattopadhyaya and S Ashra titled 'Deficit, Money and Prices: The Indian Experience' found unidirectional causality from price to M3. Thus money is endogenous and prices are exogenous. The second paper 'On the Stability of Demand for Money in a Developing Economy: Some Empirical Issues' by B K Pradhan and A Subramanian concluded that both narrow and broad measures of money exhibit long-run relationship with real income and rate of interest in India. Thus stabilisation policy should aim at both broad and narrow money with a stable demand function, for bringing up price stability in the economy. The third paper 'Does Money Supply in India Follow a Mixed Portfolio-Loan Demand Model?' by D Rath examined the endogenity of money supply. The paper distinguished among three competing models of the money supply process, namely, pure portfolio approach, pure loan demand approach and mixed portfolio-loan demand approach. The author found that in India the mixed portfolio-loan demand approach best described the money supply process.

Credit and the Monetary Transmission Mechanism

The paper 'Monetary Transmission Mechanism: The Credit Channel Hypothesis Revisited' by H Mukhopadhyaya argued against conventional method of testing the 'credit channel' hypothesis. The paper diverged from the earlier work by considering only the credit-supply constrained firms. His study of Indian industry documented three major findings. First, bank credit does indeed influence inventory accumulation. Second, the size of external finance premium depends on the financial conditions of firms. Third, bank-dependent small industries suffer most during a period of quantitative credit control.

The paper 'Money, Credit and Exogeneity: A Multivariate Cointegration Approach' by S Koparkar introduced credit for the first time in a money demand equation for India and examined the long-run relationship between bank credit, money supply, foreign exchange reserves and industrial output over 1952-96. Causality tests suggested that money is endogenous and thus monetary policy may be accommodative.

The third paper titled 'Dynamics of Money, Output and Price Interaction: Some Indian Evidence' by S Dutta Roy and G Darbha modelled the dynamic interaction between money, output and prices in a structural vector auto regression framework. The study had two major findings. An increase in money/credit supply leads to increase in output and prices in the short run and only prices in the long run. A non-accommodative monetary policy is ineffective in controlling inflation even at the cost of substantial output losses.

East Asian Crisis: Lessons for India

The paper 'The East Asian Crisis of 1997: The Role of Structural and Proximate Factors' by S Gokarn tried to unify extant explanations of the east Asian crisis. The paper argued that the crisis can indeed be interpreted as a consequence of the growth strategy. The paper linked up the proximate (or how) factors and structural (or why) factors associated with the crisis. The main lesson for India is the requirement of rapid development of asset markets with new financial instruments allowing the banks to hedge their portfolios. The second paper 'East Asian Crisis: Lessons for Indian Banking' by P Mitra discussed the East Asian Crisis more as a banking crisis and less as a currency crisis.

Asset Markets, Market Microstructure and Financial Equilibrium

The paper 'Real and Financial Sector Interaction under Liberalisation in an Open Developing Economy' by A Goyal and S Dash showed that a passive monetary stance would lead to a monetary tightening and rise in interest rates. The rate of inflation may fall, but there could be large fluctuation in interest rates and equity returns, which can harm the output in

medium term. The paper 'The Status of NBFCs in India' by B Gayathri argued that healthy and growing non-banking financial (NBF) sector is necessary for promoting the growth of an efficient and competitive economy provided NBFCs improve degree of financial intermediation.

The paper 'Integration and Price Discovery in Indian Stock Markets' by R Jha, C Krishnamurthy and H Nagarajan examined price discovery and integration of the various stock markets in India. Their results indicate that markets are integrated in the long run, thus regional stock exchanges should be promoted in the national interest of widespread trading. The authors recommended better information dissemination between markets to avoid arbitrage, strengthening competition in securities to reduce fear of price rigging, trading of medium-size stocks on regional stock exchanges with centralised order booking. Also, strengthening of interaction between stock exchanges with sharing of order flow might have the benefit of widening and deepening the market.

M Thiripalraju and T P Madhusoodanan in their paper 'Commodity Futures Prices in India: Evidence on Forecast Power, Price Formation and Inter-Market Feedback' examined the efficiency of price formation in the Indian commodity futures markets of peper and castorseeds. T Waghmare in his paper 'Volatility in Indian Stock Markets: A Study of Badla and Short Sales Restrictions' discussed the impact of banning short sales and badla transactions by the Indian regulatory authorities on destabilising volatility on the Bombay Stock Exchange. He found that though the ban on short sales did prove effective in reducing volatility due to 'noise' the same was not true in the case of badla transactions.

Ajay Shah in his paper 'Improved Methods for Obtaining Information from Distributed Dealer Markets' offered a market microstructure interpretation of the information obtained by polling dealers and proposed improvements for many elements of the polling process. The paper provided empirical evidence based on polling in India's call money market about this trade-off. The paper 'Natural Experiments with Price Limits' by Ajay Shah, Susan Thomas and G Darbha studied a set of natural experiments where price limits were changed on India's National Stock Exchange (NSE). Their result suggested that a combination of liquidity and volatility influence the impact of price limits upon prices.

Every paper was the subject of intense discussion, both by a formal discussant and from the floor. The participants and audience came away with the conviction that considerable and exciting work on money and finance is being done in Indian universities/institutes. A conference such as this by bringing together some of these researchers will surely lead to considerable cross fertilisation of ideas. During the valedictory session, it was felt that the money and finance conference should become a regular feature at the IGIDR.

[We are grateful to Raghbendra Jha for his valuable suggestions and encouragement in preparing this report. Any remaining errors are ours.]

Exposing Violence against Women

A Campaign in Uttar Pradesh

Nisha Srivastava

Vanangana, a women's group, recently organised a campaign against domestic violence in Banda district in Uttar Pradesh. To provoke the women themselves to break their silence on this issue, Vanangana, in 30 villages, performed a play based on a real incident and followed it up with discussions. The campaign proved effective in creating awareness.

BANDA district in the Bundelkhand region of Uttar Pradesh has made headlines because it is home to the dreaded dacoit Dadua and his gang. The crime that escapes, notice is domestic violence against women. The industrial and economic backwardness of this region – one of the most backward in the state – provides fertile soil for such activities. The parameters of women's progress in the region are lower than the already abysmal state averages. Female literacy is 23.9 per cent and the sex ratio (number of women per 1,000 men) is 846 compared to the state average of 25.3 per cent and 879 respectively. No figures, however, can reflect the plight of women or the social and economic constraints that shackle them.

It is in this arid, poverty-stricken and dacoit-infested district that Vanangana, a women's group, has been working for the empowerment of rural women. In an area where water is a perennial problem, Vanangana has broken the stereotype of the male mechanic and has trained women to become hand-pump mechanics. Self-help groups have been organised to extricate women from the clutches of rapacious moneylenders, and to increase their earnings by helping them to acquire skills.

Even as Vanangana members mobilised women on these issues, there was one issue that loomed large in many gruesome forms. Domestic violence was an issue that impacted on most women but one which remained wrapped up in a shroud of silence. Sometimes the shroud was not just metaphorical. Many women were killed, and several others driven to suicide in increasing incidents of domestic violence. In Banda district alone, in the last one year, the number of reported dowry deaths was 21 and suicides seven, which was the highest ever. Yet very few of the total cases were reported and even fewer resulted in any convictions. In no case was there any public outcry.

"Domestic violence is so all pervasive, it just cannot be ignored any more. Society, the police, the administration and the family are all guilty in this conspiracy of silence. We decided to start an all-out campaign and take the sensitive issue of domestic violence head on," says Huma Khan the co-ordinator of the campaign. Their first task was to visit the villages and investigate the cases in which women had been found dead in unnatural circumstances in the last one year. They made a list of 30 such villages. They had worked in some of the villages, others were new to them.

"Each village had one or more chilling story of a women's murder or suicide. But the greater tragedy was the silence on the issue. The stories were different, but the underlying theme was the same. Class, caste, religion and patriarchy all collude against women. We wanted to bring this issue into the open. We wanted people to discuss it. All the women who had died were between 18 and 24 years of age. They all either had small children or were pregnant. Even today men in these areas think they have absolute right over their wives. What they do with them is their private family matter. We wanted all the different views to emerge", says Madhavi Kukreja, the crusading founder of Vanangana.

The campaign started in the first week of January 1999. In each village, a play was first enacted to project the theme. The play was based on the true story of a girl from one of the villages. In the play, the girl is mercilessly beaten by her husband but gets no refuge even in her fathers home. When she eventually dies, there is much breast-beating. Her father threatens

to take the matter to the police, but instead of having his son-in-law arrested, the father, at the instance of the police strikes a deal with his son-in-law. He goes home richer, his conscience clear. After all his daughter cannot come back so what harm can some cash do? The police is happy it has done its job; it has resolved a case amicably (and, not to be mentioned, lucratively). The boy is also happy. He is free, free to marry again and bring in another dowry.

The play was followed by an open discussion in the villages. Since there had been recent incidents of violence in these villages, there was tension and some acrimony. However, Vanangana activists were able to contain this because the objective was to initiate a debate, create awareness and build up public opinion against it.

The incidents of domestic violence in these villages make gruesome stories. In Bhitakhera village, the body of Gita Devi had been found in the fields in July last year. She had been first hanged and then her body had been thrown out in the fields where it was discovered the next day covered by slush and rain. Her in-laws had fled. Her husband and in-laws were later arrested, only to be released on bail soon after. Gita Devi's death raised many issues that were discussed in the meeting after the play. Women said they felt helpless because they were not educated and there were few opportunities for employment. The legal system and the police were all insensitive to a woman's needs. The growing demands for dowry, they said, had made life insufferable for women.

When Neelam, a newly married girl died of burns in village Bachran, her father with the help of Vanangana activists lodged an FIR against the husband and got him arrested. However, six months on, the situation is completely different. The father struck a deal with his son-in-law. No one knows the details of the deal, but he is now getting his second daughter married to the same person.

About 400 people had assembled in Bachran village to watch the play. There was some tension because the theme of the play was so close to the sordid events of their own village. Many women wept and said the situation was the same everywhere but who was willing to listen to them?

One youth said that it was the greed for dowry that made life miserable for women. Another stated that the question was not one of dowry alone. It was one of mentality. Till such time as men consider women inferior and no better than slaves, the situation will not change. In-laws who murder their daughters-in-law and parents who compromise with their daughters' killers should be socially ostracised. Not everyone, however, was in favour of change. One old man said that when a girl gets educated she starts asking for her rights, and that is not acceptable to men, that is why there is conflict. Another criticised women's groups which talk of the rights of women and break up families.

One elderly villager said that Bachran village was considered the most ideal village in the district, but some four incidents of violence against women have spoilt the name of the village. In an intensely emotion charged ambience, one young man who beat his wife frequently took a pledge in front of all those assembled never to beat her again.

Ahrjiya, a harijan girl of village Bihara, consumed poison and died only three months after her marriage. Vanangana members tried to persuade her father to register the case. He would agree, and then back out. Finally, it was discovered that he had taken money to hush up the matter.

The complicity of the police at worst, or their apathy at best, was another reason why perpetrators of crimes against women got away. This was the view of women in a large meeting that was held in village Agarhunda. Kamlesh, a backward caste girl belonging to this village, had been married to a man from another village. She was frequently beaten by her in-laws. No one in the village would come to her rescue. She was not allowed to go to her father's home. Last June, she was found dead, crushed by a truck. Her in-laws said it was an accident. Her father and others, however, did not believe that. They suspected that she had first been killed and then thrown under a truck. Everyone in the neighbourhood knew she used to be beaten. In fact, all her neighbours testified that she had been badly beaten the day before she was found dead. However, no FIR was lodged because the police did not find any evidence of murder.

In the meeting in Agarhunda village, Kamlesh's mother crying profusely, declared "I have lost one daughter, but we will see that no else in this village loses another".

In village Chamrauha, Nirmala, an adivasi woman, was found dead hanging from a tree. She was several months pregnant. People said she was brutally beaten up by her husband, but the police did not register the case. Her father was very poor and belonged to a distant village. Pursuing the case would have meant frequent trips and expenses both in cash and in lost earnings. After Vanangana had staged the play in this village, Nirmala's case camp up for discussion. Some people said the police was responsible because they did not take these cases seriously, consequently culprits escaped and those who committed these crimes were not afraid. The role of society and its responsibility in the tragic loss of young lives also came up for discussion. Other questions generated heated exchanges too: "Does a man have a right to beat his wife if he wants to? Is it an internal family matter? Fights between father and son, or mother and son, or for that between two brothers are not considered exclusively an internal matter of the family. Why then, is only beating up of the wife an internal family matter?"

A young harijan girl, only 17 years old, died of burns in village Taraon. During the course of the discussion after the staging of the play, people said that even if a woman commits suicide, the family should be held responsible because their actions had driven her to the extreme step. How far where the girls parents responsible? In this case the girl did not want to come back to her husband's house, but her mother had forced her to come. To complicate matters, there were also rumours that the girl had illicit relations with her father. Many women, however said it was very easy to spoil a girl's reputation and then harass her.

Leelavati, the woman pradhan of the village took a vow along with other women that they would not be silent in such cases any more and work towards change.

One of the objectives of the campaign was also to sensitise the bureaucracy. After covering 30 villages, on the penultimate day, the play was staged in the premises of the district court in Karvi, Banda. Hundreds of people attended the meeting. The song 'Kya kassor keenha, kanha, jo diyo ye sajaye, babul bhaiya, maiya, sab bhaye paraye,' brought tears to the eyes of many of those present. The district magistrate and other officials participated for over two hours watching the play and taking part in the discussions.

"When we started the campaign we were unsure of what to expect. We just knew we had to take up the issue. Vanangana activists themselves have been victims of brutal violence. But they are lucky to have escaped. Others have not been so fortunate. We wanted to show that women's rights are human rights. The response in all the villages has been overwhelming and beyond our expectations. The campaign has generated a public debate and the bureaucracy and police will have to take notice", say the organisers.

'A public hearing on the issue is next on our agenda,' says Madhavi, 'the struggle will go on'.

Health in the Ninth Plan

K R Nayar

Given that there is enough evidence today to show that the long neglect of public health is dramatically changing the epidemiological profile, the Ninth Plan has paid little attention to improving these services.

THAT all plan perspectives begin with a sad story and end on a happy note make one wonder about the 'continuity' of different plans. The Ninth Plan perspective on health is no different. It starts on how our great traditions were lost by 'inappropriate use of science' and 'colonial pattern of industrialisation' and how these resulted in the impoverishment of masses. After the usual statement on history, the perspective starts on the gloomy side of Indian health service system by stating or rather admitting that the health system is functioning sub-optimally. The health service system is plagued by lack of essential infrastructure, suitable equipment and appropriate the humanpower especially in some critical positions, and poor referral services (source: nicnet).

The stated intentions of the perspective on health could be found in any number of such earlier government documents. They are:

(i) an absolute and total commitment to improve access to, and enhance the quality of, primary health care in urban and rural areas by providing an optimally functioning primary health care system as a part of the basic minimum services;

(ii) to improve the efficiency of existing health care infrastructure at primary, secondary and tertiary care settings through appropriate institutional strengthening, improvement of referral linkages and operationalisation of Health Management Information System (HMIS);

(iii) to promote the development of human resources for health, adequate in quantity and appropriate in quality so that access to essential health care services is available to all and there is improvement in the health status of the community; periodically organise programmes for continuing education in health sciences; update knowledge and upgrade skills of all workers and promote cohesive team work;

(iv) to improve the effectiveness of existing programmes for control of communicable diseases; to achieve horizontal integration of ongoing vertical programmes at the district and below district level; to strengthen the disease surveillance with focus on rapid recognition, reporting and response at district level; to promote production and distribution of appropriate vaccines of assured quality at affordable cost; to improve water quality and environmental sanitation; to improve hospital infection control and waste management;

(v) to develop and implement integrated non-communicable disease prevention and control programme within the existing health care infrastructure;

(vi) to undertake screening for common nutritional deficiencies especially in vulnerable groups and initiate appropriate remedial measures; to evolve and effectively implement programmes for improving nutritional status, including micronutrient status of the population;

(vii) to strengthen programmes for prevention, detection and management of health consequences of the continuing deterioration of the ecosystems; to improve linkage between data from ongoing environmental monitoring and that on health status of the population residing in the area;

(viii) to improve the safety of the work environment and worker's health in organised and unorganised industrial and agricultural sectors especially among vulnerable groups;

(ix) to develop capabilities at all levels for emergency and disaster prevention and management; to implement appropriate management systems for emergency, disaster, accident and trauma care at all levels of health care;

(x) to ensure effective implementation of the provisions for food and drug safety; to strengthen the food and drug administration both at the centre and in the states;

(xi) to increase the involvement of ISM and H practitioners in meeting the health care needs of the population;

(xii) to enhance research capability with a view to strengthening basic, clinical and health systems research aimed at improving the quality and outreach of services at various levels of health care;

(xiii) to increase the involvement of voluntary, private organisations and self-help groups in the provision of health care and ensure inter-sectoral co-ordination in implementation of health programmes and health-related activities; to enable the panchayati raj institutions (PRI) in planning to and monitoring of health programmes at the local level so that there is greater responsiveness to health needs of the people and greater accountability to promote inter-sectoral co-ordination and utilise local and community resources for health care.

Two important areas which need closer scrutiny in a perspective on health are its approach to primary health care and to disease control programmes.

The existing primary health care institutions, according to the document are functioning sub-optimally because of inappropriate location, poor access; lack of maintenance; lack of professional and para-professional staff at the critical posts; mismatch between the requirement and availability of health professionals especially physicians at PHC; lack of funds for essential drugs; lack of first referral units (FRUs) as linkage for referral services. On realising that the goal of 'Health for All (HFA) by 2000 AD' laid down in the National Health Policy (1983) was unlikely to be achieved within the time specified, the Eighth Plan restated the goal as 'Health for Underprivileged (HFU) by 2000'. It appears that even this nominal 'target' would not be achieved within the plan period.

The primary health care units have been in a shamble as revealed in the plan document. Even the referral units are not functioning effectively. The number of functioning CHCs which form the first referral unit (FRU) is far below the projected requirement. There are also marked disparities at the state and district level while the basic minimum services are not been given priority by some states. It is a matter of concern that many of the districts with poor health indices do not have adequate health infrastructure. Taking cognisance of the widening disparities among the states in the availability of basic minimum services (BMS), the conference of the chief ministers in July 1996, recommended that additional central assistance (ACA) may be provided to the states for correcting the existing gaps in the provision of seven basic minimum services (BMS). But it is doubtful whether the pattern of utilisation of such additional assistance could have led to any reduction in the disparities. This could be largely attributed to diversion of such funds by some 'critical' states. Construction of buildings rather improving the quality of services was given priority. Even the funds received from the department of family

welfare and the externally assisted projects were used for construction of buildings. Thus, the reasons for the 'sub-optimal' functioning of primary health care institutions identified in the plan perspective are only partially addressed. An initiative which could be vigorously pursued and probably more concretely stated than in two lines in the Ninth Plan is the role of people's planning under panchayati raj. This is of course easier said than done as a number of states even now have not initiated a revitalisation of panchayati raj institutions. It appears that P R is largely used to transfer responsibilities and impose programmes on the lower levels than evolving a democratic set-up for decision-making. Therefore, a clear statement on the policy of decentralisation in health and identification of problems in achieving this objective needs to be included in the document.

The secondary and tertiary care on the other hand are handled differently with a dose of World Bank medicine. The added thrust on privatisation is quite evident in the policy prescriptions regarding secondary and tertiary care. A whole lot of concessions such as land, water and electricity and exemption from import duty for diagnostic equipment for the private sector is suggested for setting up tertiary care/super speciality institutions.

Disease Control Programmes

One of the problems in the post-liberalisation period with regard to health care is the gradual neglect of an integrated health care delivery system including control of communicable diseases and the entry of vertical, technocentric and selective packages. These included tuberculosis, blindness control, reproductive health, AIDS, etc, largely because of the external assistance to these programmes. Some of the new initiatives in the Ninth Plan include horizontal integration of vertical programmes, hospital infection control and waste management, and disease surveillance and response. An integrated approach to disease control programmes have been tried earlier with the multipurpose workers. However, what we witnessed is further verticalisation and added thrust on specific diseases influenced by the external assistance. Unless the linkages between financing and programming are clearly understood, the alien ideas which accompany the packages would wreck the disease control programmes.

Among the communicable diseases, malaria and tuberculosis are certainly given importance. The National Malaria Eradication Programme intends to begin an intensive implementation of the modified plan of operation (MPO) in the malariogenic areas of the country in the Ninth Plan. The areas identified are the seven north-eastern states and 100 districts spread over the states of Andhra Pradesh, Bihar, Gujarat, Madhya Pradesh, Maharashtra, Orissa and Rajastan based on the criteria of (a) annual parasite index of more than two for the last three years; (b) deaths due to malaria; (c) P falciparum rate of more than 30 per cent; and (d) tribals constituting more than 25 per cent of the population. The main components to be strengthened in the Ninth Plan are (1) Early diagnosis and prompt treatment through active and passive surveillance and laboratory diagnosis; (2) Selective vector control by integrating various vector control approaches and promotion of personal protection methods; (3) Prediction, early detection and effective response to malaria outbreaks; and (4) Intensified information, education and communication campaigns. The programme still strongly depends on clinical and technical solutions than on addressing epidemiological, ecological and social dimensions of the disease. The methods which are being advocated such as personal protection through impregnated bed nets show that the social dimension of the disease have not been well conceptualised. It appears that the planners have not learnt from the past mistakes of the programme. What is needed for the intensive phase is a better managerial approach with emphasis on ecological and social dimensions.

The National Tuberculosis Control Programme (NTCP) also receives considerable attention in the perspective. The revised programme for tuberculosis (RNTCP) would be implemented in 103 districts apart from strengthening 203 short course chemotherapy (SCC) districts. This extension is based on the experience of pilot studies in 17 project sites in which it is claimed that 60 to 80 per cent cure rate was achieved. It is not known how this can be replicated given the intensive efforts done during the pilot phase and the fact that most of these were carried out by agencies in the private/NGO sector in urban areas. Nevertheless, efforts should be made to reveal and address the problems identified during the pilot phase instead of blindly carrying the programme forward just because assistance is available from the World Bank.

The AIDS control programme is the classic example of the external control over India's communicable disease control programmes. While diseases of the poor such as cholera and diarrhoeal diseases do not find a place in the perspective, AIDS occupies a central place as a cent per cent

centrally aided programme through external assistance. Similarly, non-communicable diseases also receive considerable attention. These include cancer control, micro-nutrient malnutrition, diabetes, cardio-vascular diseases, mental health, etc. Some states had also initiated pilot schemes in the Eighth Plan for integrated non-communicable disease control with diabetes as a model in some districts. In the Ninth Plan as well these will be continued with added emphasis on diagnosis and management through the primary and secondary care level assuming that diseases like diabetes, cardio- and cerebro-vascular diseases and malignancies are going to comprise the major disease burden in the rural areas. In reality, this apart from adding to the programme burden of the PHCs and CHCs would also serve as a conduit for private diagnostic institutions sprouting up in the rural areas.

The perspective on environment and health starts with a broader approach with focus on detection, prevention and management of existing deficiencies or excesses of certain elements in the natural environment, macro-environmental contamination of air, land, water and food, natural disasters, etc However, communicable diseases due to environmental conditions in the urban and rural areas need to be clearly spelt out in terms of specific programmes and strategies rather than a 'garbage clearing' approach which mainly evolved in the post-plague period. One of the positive features of the perspective is the stated intention to evolve programmes for the agricultural and unorganised sectors. Any structured health programmes evolved for these sections including vulnerable groups such as women and children, however needs to be carefully conceptualised in the perspective so that it may not result in yet another vertical programme.

That external assistance has considerably influenced the outlook of the Ninth Plan perspective on health is quite evident. The strength of India's health care system is its elaborate network of health care infrastructure which is being systematically undone in recent years despite the claim that external assistance has been used to improve primary health care infrastructure. However, apart from buildings there have been no improvements in the quality of services. In fact, the focus during the Eighth Plan was on strengthening health care infrastructure aimed at improving the quality and outreach of services. However, health care infrastructure was largely visualised as construction of buildings. Along with this, the clear policy shift towards privatisation during this period has resulted in the utter neglect of public health services. The outlay for health sector has also steadily declined from 3.3 per cent of the total plan outlay in the First Plan to around 1.7 per cent in the Eighth Plan. More than one-third of this investment is by external assistance linked to specific diseases such as AIDS, blindness control, etc. On the other hand, investment for family planning has been growing over the years. The annual report of the ministry of health states that the public expenditure in the health sector has been a little over 1.5 per cent of the GDP while WHO recommends that it should be at least 5 per cent of the GDP. The collapse of the public health system in the country and the loss of faith of the people in government health services could be largely attributed to the declining investments especially after the structural adjustment programmes. At the same time, these trends are also used as a rationale for ushering in privatisation in the health sector. The collapse of the public health system has also influenced the epidemiological profile of the country. Acute respiratory infections and malaria are showing a rising trend from 1988 onwards. As are pneumonia, tuberculosis, viral hepatitis, cholera, and enteric fever in recent years. The dramatic decline in the infant mortality rate, a sensitive indicator of health status, occurred only during the pre-reform period. The rates have been rising, stagnating or the decline has slowed down in most of the vulnerable states of India. Even in Kerala the IMR has been showing a rising trend. In Karnataka, the rate has not declined much over the last 10 years. The situation warrants effective intervention. As a beginning, the comprehensive review of public health system in the country undertaken by the Planning Commission should now be discussed in an open forum to enlist the views of public health scholars from different parts of the country before any major reformulation in the national policy and revision in the public health strategies as proposed in the perspective are initiated.

PAKISTAN

IMF Package: Nothing to Celebrate

S Akbar Zaidi

The expectation that the resumption of IMF loan will rescue Pakistan's economy is based on fiction, not fact. It will at best provide some breathing space, nothing more.

ALTHOUGH celebrations have already started in Islamabad over the resumption of the IMF $1.6 billion ESAF, this is probably the best time to take stock of Pakistan's economy which has struggled to cope with events that arose as a consequence of Pakistan's nuclear tests. While there is little doubt that the resumption of this loan, incorrectly called aid, will have an immediate positive impact on Pakistan's economy, both in terms of the government and also the private sector, this euphoria is likely to be short-lived.

The immediate availability of foreign exchange will ease some pressure on the government's reserves, and will help in some debt repayment over the next few weeks. The government will welcome this even if the London and Paris clubs agree to concessions in response to Pakistan's request for debt rescheduling. The private sector should also respond favourably as a commitment from the IMF is usually seen as a positive signal signifying that the rot has been stemmed. Specifically, an easing of the pressure on the exchange rate and a restoration of confidence on the part of the international financial institutions in the economy will give an impetus to business confidence in Pakistan. A likely upgrade in credit rating should also follow.

However, this is as far as it goes. All that the IMF loan does is that it allows Pakistan some breathing space over the next few weeks in terms of its balance of payments, and nothing more. The expectations that this package will 'rescue' Pakistan's economy are based more on fiction than on facts. The recent experience of Russia and now Brazil confirms that outside credit is insufficient to shore up investor confidence beyond the very short term and that it will be unable to override key internal structural problems. Nor is this all. In the case of Pakistan, as in the case of a very large number of countries which have taken loans from the IMF, the evidence suggests that things get worse.

rather than better, as one would expect. This is the greatest fear arising from adherence to the IMF's structural adjustment programme.

The main component of the new IMF deal, as it has been in the past, is the target for Pakistan's budget deficit. Currently around 5.5 per cent of GDP, the budget deficit is expected to decline to 3.3 per cent by June 2000, a fall of more than 2 percentage points in 18 months. The lowering of this key statistic will be based upon a host of fiscal measures, which include a rise in the GST, a reduction in non-development unproductive expenditure, restructuring of key public utilities of which WAPDA and KESC head the list, privatisation of financial institutions and a reduction in the federal subsidy for wheat. In addition, the programme envisages a decline in tariff rates, further trade liberalistion, enforcement of a market-based foreign exchange regime and broadening and restructuring of the tax system.

Through these measures it is expected that Pakistan's economy will once again achieve GDP growth close to its historical level of 6 per cent; inflation is also expected to fall to a mere 6 per cent by 2002, and the current account deficit currently in excess of 3 per cent of GDP is expected to fall to less than 1.5 per cent over the same period. It is unlikely that many analysts would disagree with the need for far-reaching structural changes to revamp Pakistan's economy. With domestic and foreign debt collectively equivalent to around 90 per cent of Pakistan's GDP, and with interest payments consuming more than half of the country's annual budget, it is not surprising that the budget deficit continues to be the main focus of the latest IMF package. Also, few would disagree with the need for a better tax system, better public services and better governance, all concerns which form part of the new agreement with the IMF. However, since this is the fourth major agreement with the IMF in a decade, a look at the past would perhaps inform our judgment far better.

Since December 1988, when Pakistan entered its first major agreement with the IMF, all governments have been following the broad guidelines of a structural adjustment programme. While the emphasis has shifted now and then, for the most part the basic ingredients continue to be the same. The fiscal deficit has remained the key plank of these agreements, and tariff rates have shown a marked fall from a maximum rate of 225 per cent in 1992 to around 35 per cent today. Privatisation has been actively pursued, with over 70 firms and industries already privatised; two of the five nationalised commercial banks have also been handed over to the private sector. Pakistan's rupee has continued to be devalued from Rs 18 to one US dollar in 1988 to nearly Rs 50 today. Subsidies have been cut, and administered prices in the utilities sector continuously raised over the last 10 years. Government expenditure has been cut as a consequence of the structural adjustment programmes and the fiscal deficit has been drastically reduced from a high of 8.7 per cent in the first Nawaz Sharif regime in 1990-91 to its low current level of around 5.5 per cent. Hence, quite clearly, over the last 10 years, governments of Pakistan have adhered to the IMF's structural adjustment packages and the current agreement needs to be seen as a continuation of those agreements. The critical question to ask then is: What has been the outcome of these policies followed on the recommendations of the IMF?

Although it is difficult to prove causality, some interesting observations on the economy after 1988 help show how the economy has performed after the initiation of the structural adjustment programme. Firstly, the overall growth rate of GDP has fallen well below trend levels, and appreciably below the average of the 1980s. In the 10 years since the implementation of the programme, in only one year was growth of GDP more than the average of 6 per cent observed since 1977; in two of those 10 years, in 1992-93 and in 1996-97, the growth of GDP was 2.3 per cent and 3.1 per cent, respectively, the lowest in more than three decades. In the 10 years since 1988, inflation was in double digits in eight years, while previously in the 40 years during 1947-87, inflation was in double digits on only seven occasions.

The current account deficit, reduction of which is one of the goals of the structural adjustment programme, was more than 4 per cent of GDP in seven of the 10 years; in the period prior to the enforcement of the programme for the eight years, 1980-88, the current account deficit was 3.6 per cent, rising thereafter due to the trade liberalisation reforms. Manufacturing growth rates, which averaged 9.1 per cent during 1980-88 fell to 4.9 per cent during 1988-97, falling to a mere 1.78 per cent in 1996-97, the lowest in the last 30 years. Because of the obsession with the fiscal deficit, public expenditure has been cut, and development expenditure in particular has borne the brunt. From a high of 9.3 per cent of GDP in 1980-81, development expenditure has been falling since and in 1997-98 was only a little over 3 per cent of GDP.

Research has shown that after 1988 poverty has returned to Pakistan in a big way, with the number and percentage below the poverty line increasing. Public sector employment, historically an important anti-poverty measure, has fallen, while wages have decreased in real terms: real wages, which increased by 0.7 per cent during 1980-91, fell by 2 per cent during 1991-95; public sector employment is estimated to have fallen by 10 per cent during 1990-93 and 43.2 per cent of workers previously employed in public enterprises were laid off by their new employees. Overall unemployment in occupations with a high incidence of the poor has dramatically increased and real wages of skilled and unskilled labour have sharply declined. In addition, subsidies that were critical to the consumption pattern of the poor have been cut while the burden of indirect taxes on the poorest income group has increased. Not surprisingly, there has been an increase in poverty and inequality, particularly in the rural areas.

It is important to emphasise that while these numbers show a very obvious downward trend since 1988 when the structural adjustment programme was introduced, we cannot prove that this is on account of the programme since there are numerous other factors which have also affected the economy – frequent changes in government, a fall in remittances, deteriorating law and order, for example. Nevertheless, given the dramatic changes that have taken place in the economy as a consequence of the programme, common sense suggests that it is more than likely that the adjustment programme had a large contribution to make to this downturn.

Little has changed with this new (or restarted) ESAF programme. The conditions attached to the loan are similar to those in the past, as are the main targets and goals. It is unlikely that, as commonly believed, this loan from the IMF will be a panacea for the numerous ills that afflict our economy and society. While restructuring is urgently required, it will need to incorporate far more fundamental changes than those that form the fine tuning of the IMF packages. Numerous writers have argued the need for institutional reform, provincial and local level democracy and autonomy, and a drastic restructuring of the nature of Pakistan's antiquated state structure. The policies of the World Bank and of the IMF have failed time and time again. Perhaps it is time now to try restructuring and adjustment of a very different nature.

Globalisation: A Socialist Perspective

James Petras

By understanding the historical and structural limits of 'globalist ideology' we can escape the tyranny of globalism. The alternatives grow out of the experiences emerging from the failures of the 'export strategies'. By focusing on social relations and the states as the building blocks of global empires we can escape the prison of globalist thinking and enter the realm of political and social action.

GLOBALISATION at a minimum involves the creation of a world economy which is not merely the sum of its national economies, but rather a powerful independent reality, created by the international division of labour and the world market which in the present epoch predominates over national markets. Large-scale, long-term flows of capital, commodities, technology and labour across national boundaries define the process of globalisation.

Contemporary globalisation is similar and different from earlier phases of the process. As in the past, the major forces organising the movements of capital and commodities are the imperialist countries and the dominant classes within those states. Globalisation involves 'globalising' nations and classes and the 'globalised'. Thus the process is embedded in a hierarchical system of power, exchanges and benefits. The formation of a world market and an international division of labour involved(s) three types of relations: (1) Imperialist directed exchanges with colonised and/or dependent nations. (2) Inter-imperialist exchanges between the dominant powers. (3) Inter-dependent exchanges between non-imperialist nations and classes.

The imperialist classes compete and collaborate over markets and capital outlets: the consequences of exchanges are more or less beneficial to both parties. The imperialist-colonial/dependent exchanges and capital flows are asymmetrical and highly skewed to favour the imperial countries.

In summary, globalisation is a highly differentiated phenomena that has historically been linked to the concentration and centralisation of capital, wealth and power. The driving force has been the co-operation and competition of the imperialist powers.

In Historical Perspective

Contemporary globalisation retains many of the key features of the earlier phases of the process: the driving forces are centred in the imperial state and the multinational corporation and banks, backed by the international financial institutions. What is significantly different is the scale, scope and speed of the circulation of capital and commodities, particularly financial flows between de-regulated economies. Technological changes especially in communications (computers, fax, etc) have been a prime factor in shaping the high velocity of movements of capital.

The scope and scale of movement of capital and commodities, however, is less due to technological than to political changes. The demise of socialism in the former Communist countries of Europe and Asia, the conversion of nationalist-populist third world regimes to unregulated capital and the demise of the welfare state in the west have opened vast areas for accumulation of profits (and surplus capital) and new markets for sales and investment. The political victories of imperialism are thus central to the advance of the contemporary process of globalisation in relation to the historical period immediately following the second world war and certainly in relation to the inter-war period.

The conflict between globalising imperialist forces and the third world – what was erroneously referred to as the cold war – was evident in the 23 million people who died in 143 wars, overwhelming in the third world, between 1945-1992. The contemporary phase of globalisation was a consequence of what sub-commander Marcos refers to as the third world war which continues to this day.

The identification of the social, political and economic agents of globalisation is important in understanding the unequal impact of globalisation. Likewise a historical analysis of the phases of globalisation allows one to refute some of the ideological claims of its proponents. A retrospective analysis reveals that 'globalisation' has been cyclical in world historical development. There were periods of 'high' globalisation, moments of crises, and periods in which economic flows turned inward. There is no universal inevitable tendency toward 'globalisation'. Inter-imperial wars resulting from global competition, internal crises of over-production, and more important social and political revolutions have all affected the trajectory of globalist nations and classes. The cyclical nature of globalisation allows analysts to identify the internal/external weaknesses of the globalist-imperialist project and to identify the alternative strategies that emerged from the crises of global projects in earlier times.

The very idea of 'globalisation' as a historical necessity thus is questioned by its cyclical history. The notion that we enter a new period is also dubious: foreign trade and overseas income was a greater percentage of GNP in Europe during the late 19th century than at the end of the 20th century. The idea that technology drives globalisation, omits the point that most of the new technologies emerged prior to the current globalist phase and are compatible with expanding domestic production and popular consumption.

The globalisation idea is itself suspect. In its most widely expressed usage it argues for a universal incorporation to the world marketplace and the spread of benefits throughout the world. The empirical reality is neither universal incorporation nor the spread of benefits: there are wealthy creditors and bankrupt debtors; super-rich speculators and impoverished unemployed workers; imperial states that direct international financial institutions and subordinate states that submit to their dictates. A rigorous comparative analysis of contemporary world social-economic realities would suggest that the 'globalist' concept of 'interdependence' is far less useful in understanding the world than the Marxist concept of imperialism.

Rise of Globalist Ideology

The rise of globalist ideology is found originally in the business journals of the late 1960s and early 1970s. The major expansion and conquest of markets by the multinationals was described as globalisation by business journalists searching for an alternative to the existing Marxist vocabulary, since they sought to present the process in a favourable light. Gradually the term was taken over by the mainstream academic world and became the acceptable framework for talking about international

capitalist expansion without having to deal with its origins, power relations and exploitative outcomes. What emerged from the academic recycling of the concept was 'globaloney' – the embellishment of the concept by linking it to what was called the third technological revolution and imputing to it a historical inevitability and degree of interdependence that was remote from reality. From the business, journalistic and bourgeois academic world, the term was incorporated into the vocabulary of the Left intelligentsia. They too began to parrot the same properties and arguments in the context of a mindless flight from critical socialist paradigms. Thus 'globalisation' seems to have become a universal category of analysis through which the imperial ruling classes exercise power and paralyse mass popular opposition.

The retreat of the Left intellectuals from the imperialist theoretical approach toward globalisation is intimately related to the defeat and decline of revolutionary socio-political movements and the ascendancy of the financial and export elites. There is a dialectical inter-play between imperialist power, globalist ideology and revolutionary socialist politics: the ascendancy of imperialism is directly related to the circulation of the globaloney discourse and the eclipse of the revolutionary paradigm.

The retreat of the Left intellectuals and the subsequent theoretical disarray of the popular movement contributed to the further strengthening of the imperial ruling classes: objective shifts in power resulting from political and economic successes were amplified by the ideological capitulation of the ex-Leftist intellectuals and the confusion sown in the popular movement. The tyranny of globalism was responsible for the subjective weakness of the popular classes that reinforced the objective power of imperial capital. The Left intellectuals and influential political leaders having lost their conceptual anchorage drifted from an imperialist conceptual framework to a technological determinism that undercut any notion of systemic transformative politics. The underlying political bases for the ascendancy of 'neo-liberalism' (the ideological derivative of the globalisation hypothesis), the political and military defeats of the left were slighted in favour of pseudo-explanations that pointed to historical economic imperatives.

The political and ideological hegemony of the globalist-neo-liberal project was further enhanced by the combined 'rigidity' and flexibility of the neo-liberal state: opportunities for upward mobility for private sector professionals and ex-Leftist intellectuals ensconced in well-heeled NGOs and downward mobility for the mass of peasants, wage and salaried workers, particulary in the public social services. The project provided massive flows of capital, cheap mass consumer imports in the expansive phase and crises, collapse and unprecedented rates of bankruptcy and unemployment in the deflationary phase.

The Asian experience is a prototype of this process: political economic victories for imperialism, the ascendancy of 'globalist'-neo-liberal political economic power, capitulation and integration of the ex-Left, followed by crisis, collapse and mass immiseration. The fundamental question for us today is: after the crisis, is a revival of revolutionary socialist politics possible? A precondition for any revival is a recovery of the Marxist-imperialist theoretical framework.

Socialist Perspective

Faced with the demise of the globalist project, with the foreign investors picking the bones of the moribund carcass – namely, the lucrative enterprises – how do we reconstruct a socialist alternative?

In the first instance, by recovering and reconstructing our theoretical tools. Secondly, by learning from and inverting the lessons from the Right on how to engineer a radical political-economic transition, a transition that combines social justice, democracy and efficiency in the organisation of a new socialist economy. To move from a critique of globalist-neo-liberal configuration to a socialist alternative we need to adopt the method of historical materialism and ask ourselves: what do we learn from previous experiences of globalisation via imperialism?

All the imperial powers throughout history were never 'globalised', they became gloablisers (imperialists) precisely through the development of the home market. Globalisation was an instrument to expand and deepen the home market and develop the forces of production. Globalisation was given a universal virtuous character in each epoch of outward expansion either in terms of moral values (extending western civilisation) or as an opportunity (to become modern). To the degree that contemporary globalisation leads to the internal exploitation of labour and state resources within the imperial centres, it has awakened a labour opposition that creates a objective and subjective basis for internationalist working class action.

The history of globalisation is fraught with inter-imperial rivalries which struggle to displace competitors and impose the rule of particular 'national' multinationals and state rule. The selective anti-imperialism of local clients facilitates the entry of imperial late-comers. The reconstruction of the Left cannot be rooted in becoming the plaything of rivalries between ascending and declining imperial powers. In the present context, there are several issues: the US exploitation of the Asian crisis to enhance its position relative to Japan, South Korea, etc. The temptation among some Leftists is to defend 'state centred' capitalism against 'neo-liberalism'; for others, the alternative is to accept the harsh prescriptions of adjustment from the IMF in exchange for employment, etc.

The basic facts are that capitalism cannot sustain growth and rising income levels: that welfare and capitalism are a product of a special balance of class forces that no longer exists. The existence of a revolutionary socialist alternative was the basic reason forcing capital to make reformist concessions in Europe and Asia. It was the existence of revolutionary socialist regimes that forced the imperialist countries to tolerate 'state directed growth' in Asia and to 'showcase' their performance. The Asian tigers were by-products of a historical conjuncture, a particular confrontation of social systems. Only the re-emergence of credible revolutionary alternatives might allow reformist and state-centred technocrats to negotiate concessions. As matters stand today, the real choices are between a capitalism that strips labour of all its social attributes, that monopolises public revenues and appropriates public enterprises and minerals and the socialist alternative - that needs to be reconstructed.

The Globalisation Parabola

Crucial to the task of constructing the socialist alternative is to recognise the globalisation parabola in the current period: the ascendancy in the 1970s, its consolidation in the 1980s and early 1990s and its decline over the last several years, beginning in Asia, Latin America and spreading to North America and to western Europe. The second biggest capitalist economy, Japan, is in a terminal tailspin, accompanied by its Asian clients. In China, stagnation and mass unemployment has set it. The Russian economy has collapsed. The US and European economies will soon feel the reverberations as corporate earning declines, and exports collapse and speculative capital cannot find new lucrative outlets.

Globalisation works in reverse. The extraordinary profits based on imperial appropriation of speculative returns no longer fuel the American and European stock market and giant financial monopolies. The worldwide bankruptcy of capitalism – its inability to reproduce itself – poses a major opportunity to argue for a socialist transformation and against strategies focused on adaptation and merely defensive struggles. Adaptation to austerity leads to new regressive policies. The argument for 'one more adjustment' is an unending melody. There is only more pain, not prosperity, in the never-ending tunnel. The link between the excess circulating capital, the declining earnings of corporations and the shrinking effective demand means infinite regression (at least for the foreseeable future). Defensive struggles, while necessary in sustaining elementary living conditions in the face of the economic collapse, provide short-term victories yet prepare strategic defeats, given the non-viability of the historic capital-labour partnership under present circumstances.

That leaves us with the concept of a socialist transformation – transformation of what? toward what?

There are two basic fallacies regarding socialist transformations. One is the notion of 'de-linking' linked to the ideas of 'self-reliance' and 'building socialism in one country'. The other is the more recent idea of 'market socialism', the notion that market-driven forces can create the material basis for socialism. Both conceptions contain grains of truth, but in their underlying logic are very harmful to the construction of socialism.

First, the possibility of development of socialist productive forces de-linked from world production leads to costly, inefficient and ultimately prolonged periods of harsh 'accumulation'. In most cases, de-linking is just not feasible without giving up essential products necessary for consumption and production. Only under harsh war time conditions or in periods of boycotts and state of siege does it make sense to try to make a virtue of necessity by appealing for 'self-reliance', urging the people to sacrifice and encouraging the idea that despite a harsh external setting that a revolutionary population can produce and survive. Such was the case when the US and the ex-USSR encircled Mao's China and restricted its external trade relations. But it would be an egregious error to convert special circumstances into a 'model' of development.

The second erroneous approach is the Dengist idea that market forces, private ownership, free trade and foreign investment directed by the Communist Party can become the driving forces toward the construction of socialism. The ascendancy of market forces has transformed the Chinese labour force in a global reserve army of cheap labour; it has converted the cadres and leaders of the party into business people who plunder the state for private gain, destroy the environment and produce ecological disasters. In a word, it is the market that directs the party and its leaders and not vice versa. The result is the worst case scenario where the authoritarian political structures of communism are combined with the brutal socio-economic injustices of capitalism and the catastrophic degradation of the environment. That is the operative meaning of 'market socialism'.

We should approach the construction of socialism in a different manner. First of all, the working class has created a vast body of knowledge over time that is 'world knowledge'. The revolutionary regime must link up with this world knowledge in order to avoid the cruel and costly earlier stages of development in which this knowledge was created. In a word, the revolution must link up with world centres of know-how as a necessary step to increase the local capacity to advance the forces of production and democratise the relations of production. But the external linkage must take place under conditions that increase the internal capacity to deepen the home market and serve popular needs.

Secondly, the economic exchanges, 'market relations', both external and internal can only have a progressive function if they are subordinated to a democratic regime based on direct popular representation in territorial and in productive units. Assembly style democracy is not only a strong deterrent of bureaucratic distortions, but also serves as an essential control mechanism over the content and direction of market exchanges.

The current fragmentation and dissolution of production is a result of the 'enclave nature' of the export strategy, where key production units specialised in specific commodities serve the international strategies of overseas and domestic investor elites. The socialist strategy focuses on the creation or reconstruction of essential links between domestic economic sectors. The socialist economy resembles a grid rather than the spoke of a wheel that is characteristic of imperial dominated export economies.

The current overseas economic packet that combines foreign investment, control and management decision-making with technology transfers (when they occur) must be disaggregated under socialism. The capturing of technology without the inconvenient encumbrances of foreign dictates and outrageous CEO salaries and foreign ownership is possible because of the plethora of technologically knowledgeable individuals, and enterprises who can be contracted and paid to transfer know-how. This form of 'dependence' is temporary and has less possibility of perpetuating itself: learning from borrowing becomes the basis for adaptation to local needs and the development of autonomous innovative capacities. The breaking of the tyranny of globalisation requires the rejection of ownership and control and the selective acquisition of the accumulation of knowledge and products that produce dynamic growth. Thus the parasitical and exploitative structures of globalisation (imperialism) need to be differentiated from the creative and productive components.

These processes of rejection and acquisition pose one of the most important challenges to any transition from neo-liberal globalisation to socialism. Namely, managing the inherent contradiction between internal socialist relations and external participation in the capitalist marketplace. This requires not only democratic control over the economic processes but more fundamentally the ideological and cultural education of working people in values of solidarity, co-operation and equalitarianism. This educational and cultural process can only have credibility if the values articulated reflect the behaviour and practices of the leadership and cadres. The great feature of socialism in the ex-USSR was the dissociation of the ideas expressed by the leaders and their practices – which led to disillusion, cynicism, distrust and worse a fatal attraction for globalist propaganda.

A fundamental appeal in constructing the socialist power bloc to transform the society and a primary task on assuming power is the creation of socio-economic linkages between domestic needs (and 'latent demands') and the reorganisation of the productive system. The existing export strategy is the product of inequalities: the labour force is seen as a cost not as consumers (demand). Hunger salaries and labour impoverishment fuels high profits for production for overseas markets. The socialist transformation recognises the enormous potentialities of the domestic market based on equalised property, income and education and health. It recognises the tremendous potential in

the utilisation of unused or underused labour among the employed.

The turn inward is essential but the external linkages to overseas markets and knowledge remains a key factor to provide earnings and technique to compliment the domestic revitalisation of the economy. What is crucial however, is that external exchanges not substitute for local production and the creation of local centres of technical knowledge creation.

Essential to any socialist undertaking is a profound agrarian reform that includes redistribution of land and transfer of property ownership along with the reorientation of credits, technical assistance, marketing and transport to facilitate food production for mass consumption at affordable prices while providing livable income for rural producers. Whatever the particular ownership patterns – and there are too many variables to provide general blueprints – the agrarian reform should encompass agro-industrial complexes and related job-generating employment. Thus the production of 'inputs' and industrial 'processing' become part of the agrarian transformation. Practical experience plus the negative lessons of the ex-USSR teach us that the structure of agriculture requires a decentralised organisation in which direct producers make basic decisions in consultation with technical advisors in the context of integrating exchanges between regions, sectors and classes.

The transition from a globalised imperial export strategy toward an integrated domestic economy depends on integrating regions and production/consumption into a unified whole: of recreating the nation in a substantive way and reorienting the state away from serving the imperial or globalist aspirations of export and financial elites.

Strategy of Transition

A necessary pre-condition of a socialist transformation is a fundamental political change in the structure of the state. Contrary to the unreflective musings of globalist theorists in both their rightist and leftist versions, the state has played a powerful role in formulating the strategies of globalisation, allocating economic resources to 'global actors', bailing out elite losers and reinforcing the policing of globalist victims and opponents. To argue that the state has been weakened is to mistakenly identify the state with the welfare state; it is to confuse the apologetic pronouncements of the ideologues of the globalists who lament their impotence faced with 'globalist pressures' with the reality of their active collaboration via state institutions.

The state and nation become the central units for reconstructing a new internationalist socialist order. The popular movements in civil society are in basic conflict with the ruling classes of civil society over who controls the state and the nature of the socio-economic project. Once again ex-leftist ideologues disorient the popular movement by pointing to conflicts between 'the state' and 'civil society' – rather than examining how the most wilful and cruel exploitation occurs within civil society between landowners, bankers and financiers on the one hand and landless peasants, indebted small producers and unemployed workers on the other. So let us move on beyond the intellectual posturing of repentant ex-leftists seeking merit-points from their new paymasters to the practical measures that move the popular movement from political power to a socialist transformation.

In this regard we can learn a great deal from the transition strategies engineered earlier by the neo-liberal globalists. Key to the implantation of the new socialist economy is the immediate implementation of shock therapy for the ruling class: profits should be drastically reduced; bank accounts and financial holdings intervened and frozen; overseas payments suspended and a moratorium on debt repayments implemented. The shock therapy has political and economic value: politically it disorganises and disorients the ruling class; economically it prevents hoarding, capital flight and the provocation of hyperinflation. More important it involves strong state intervention to restructure the economy and reconfigure state budgets and institutions. The purpose is to open the economy for domestic production, to liberate credit and investment for expanding production and exchanges at the national, regional and local levels. Shock therapy predictably will evoke protests and dire cries of injustice and arbitrariness. But quick and resolute action in following up the shock therapy with substantive new investments and credits toward the domestic market can generate more than sufficient support for sustaining the regime.

Shock therapy, rationally applied, means renegotiation with former globalist patrons and partners, not repudiation. It does not spell rupture but a reordering of priorities and relations to favour the new forces of the domestic market.

The second phase in the transition involves economic reconversion: the shift from hyperspecialisation in single commodities and limited activity in the industrial production cycle (assembly plants) to diversified production, a better balance between local consumption and export production, and greater investment in education, research, health and productivity.

To realise economic reconversion requires a shift in investments, employment and income policy. This means the implementation of a structural adjustment programme from below. Essentially this means the redistribution of land, income and credits. The breakup of private monopolies and the reform of the tax system: realistic assessments based on market values of property, rigorous enforcement of tax collection (with severe sanctions for chronic evasion) the protection of emerging industries and the opening of trade for commodities that do not compete with local producers. Financial controls will eliminate speculative activity and state planning can redirect investments to human capital formation, employment generating public works and inter-regional production.

To avoid inflation and to stabilise the economy, a tight monetary policy will need to be put in place. Monetarism from below means the elimination of state bail-outs of billion dollar debts due to mismanagement, swindles or speculation by the private sector; the elimination of low interest (subsidised) loans and cheap credits to exporters; elimination of tax abatements for multinational corporations in so-called free trade zones. The gains in state revenues and savings can fund alternative socio-economic activity without resorting to the printing of money.

There are significant differences between a socialist and a neo-liberal structural adjustment programme. Socialisation will replace privatisation as a key to increase efficiencies, competitiveness and productivity. Socialisation will include extending transport and communication networks to further inter-regional ex-

changes, thus revitalising provincial enterprises, markets and producers. This means that 'cost-benefit' analysis will be based on regional or national measures rather than the narrow balance sheets of the particular enterprise.

For example, train service to rural areas may result in 'losses' to the railroad but increase production and consumption in the regional economy. The net outcome calculated on the basis of larger units over time provides a clear idea and more accurate (socialist) criteria for measuring cost effectiveness. Likewise, public investments employing the unemployed and increase output from zero upward is another measure of efficient utilisation of human capital. In terms of competitiveness it is clear that what is determinant is the recognition that economies are about nurturing people – an elementary and basic point. Socialised enterprises that produce staple food items are far more competitive in meeting basic needs than their counterparts in the export model who ignore them. In the context of meeting basic food needs, socialised production is more responsive to popular demands and more able and willing to meet this 'market demand'.

Socialisation of economic enterprises is necessary but not sufficient to create a viable socialist economy. What is required is a plan of industrial reconversion that allows popular demand not impersonal corporate bureaucrats to decide on 'winners and losers'. This means closing or reconverting luxury producing and importing enterprises and substituting enterprises that produce quality goods for mass local consumption. This requires that working people as consumers play a vital role in the decision-making process to avoid the shabby quantitative output of the ex-communist states.

Industrial reconversion requires, however, a balance between domestic and overseas production: export earnings will continue to be important to finance vital inputs to the dynamic domestic growth model. What is crucial in this relation is the reinvestment of surplus export earnings in the development of the internal market, not their transfer overseas or to speculative activity as is the case today.

Crucial to the structural adjustment model from below is the modernisation of the state. The state in the export model is largely made up of regulators who formulate rules and allocate resources to satisfy overseas investors and traders, drawing on domestic resources and providing little information to local producers about the decision-making process. This elite process is fraught with corruption as is evident in the bail-outs and privatisation scandals.

In rejecting the neo-liberal export model there is no going back toward the centralised bureaucratic state that stifled popular democracy, blocked innovative initiatives and produced gross inefficiencies. The modernisation of the state means the decentralisation of administration of state allocations to local recipients in civil society who vote on their priorities. It means the redeployment of political appointees from useless bureaucratic functions to productive work. State reform means the relocation of health workers to the neighbourhoods, agronomists to the countryside and teachers to the overcrowded popular urban schools.

Socialism means balancing consumption with production: workers' rights with obligations for raising productivity and observing workplace discipline; it means consumers, women and ethnic minorities are included in the production and consumption decisions. Consumers and citizens have to play a key role in directing the state and economic institutions to avoid having another 'dictatorship over the proletariat' or an abundance of cheap consumer goods that nobody is interested in purchasing because of quality, style, or attractiveness.

Probably the most basic and novel feature of the new socialism is the key role that workers, consumers and ecologists will play in the review, evaluation, hiring and firing of managers. The avoidance of a privileged bureaucracy in the public economic enterprises rests with an active role of the direct producers and consumers in fundamental decision-making. Thus, under the new socialism, self-management at the state, regional and local level is the alternative to the private export elite of the globalised economy and the state bureaucrats of the past.

The key role of direct producers also involves responsibilities – a recognition that in the transition some workers may still retain 'habits and practices' of work harmful to production and creation of quality goods. Guaranteed lifetime employment is not viable: periodical peer evaluations of performance of quality and quantity of services should be the norm. Chronic offenders should be fired. Abusive bureaucrats called to account. Public utilities workers made accountable for unacceptable delays. Local, decentralised organisation allows friends, neighbours and citizens to take decisions into their own hands to provide electricity, repair, telephone lines, etc. Absentee teachers should receive 'absentee salaries' and should be answerable to parents, students and others. Professors that recycle outdated lectures on yellowing note cards should be evaluated and advised to upgrade their courses or face dismissal

New socialism means the end of the double discourse. It means that personal lifestyle should be in accord with public discourse. Intellectuals cannot critique neo-liberalism and then engage in frenzied consumption of imported consumer items. One cannot preach equality up to the doorstep of the household and then practise the authoritarian (patriarchal) politics in the family. The new socialism recognises the complexity of the contradictions in the transition; foremost, the need to democratise gender, ethnic and race relations – to engage those struggles as important in themselves – as key elements in the transition from globalisation to new socialism.

By understanding the historical and structural limits of 'globalist ideology' we can escape the tyranny of globalism. The alternatives are not disembodied utopias that are 'imagined' by individuals sitting in front of the Internet. The alternative grows out of the past and present experiences and opportunities that emerge from the failures and crises of the 'export strategies'.

By focusing on social relations and the state as the building blocks of global empires we can escape the prison of globalist thinking and enter the realm of political and social action. The inversion of the policies of globalist ideologues leads to the formulation of an alternative strategy in which social mobilisation and state power provides a new class content to the shock treatments, industrial reconversions and structural adjustments. The new socialism learns not only from its capitalist adversaries how to turn the tables but it also learns from the mistakes of the old socialism. It is more inclusive incorporating women, consumers, ecologists. It possesses a greater sensibility to the notions of freedom at the workplace and on the farms. It possesses a greater appreciation of the consequential discourse that integrates personal values and public practice.

The collapse of globalisation, as it has been understood up to now in Asia, ex-USSR, Africa and Latin America, is creating tremendous hardships but it is also a historic opportunity to transcend capitalism. It would be a failure of the nerve to settle for anything less than a new socialist society, a new nation as an integral whole, a new culture of participants and not spectators and a new internationalism of equals.

Democracy and Communal Violence

Anirudh Deshpande

Community Conflicts and the State in India edited by Amrita Basu and Atul Kohli; OUP, Delhi, 1998; pp 287, Rs 525 (hardback).

SIX chapters of this volume were presented at a conference on 'Political Violence in India: The State and Community Conflicts' at Amherst College in September 1995. Three chapters reproduced in the volume by Kohli, Dasgupta and Katzenstein et al appeared as a special issue of the *Journal of Asian Studies* in May 1997 (vol 56, no 2). Since then the BJP has suffered major electoral reverses in Rajasthan, Madhya Pradesh and Delhi and the Congress seems to have regrouped under Sonia Gandhi. Combined with the growing countrywide disgust with the Shiv Sena (SS) these recent developments, taken together, could comprise a trend increasingly being reflected in contemporary journalistic writings. Most political commentators, observing these hindutva defeats, have started saying that probably we have seen the last of the communal violence of 1980s and 1990s. In this context the latest bullying of Christians in Gujarat and the desperate pronouncements of the SS chief resonate the frustration creeping into the ranks of the Sangh parivar. Clearly the reason for this lies in the failure of the BJP and its communal allies to saffronise totally the political processes characterising a pluralistic and democratic society.

However, these contemporary developments, which display hindutva on the defensive for the first time since 1989, do not diminish the salience of several generalisations made in the worthy volume under review. The book, which concentrates on democratic political institutions as most texts of Indian political science do, will also be viewed by its readers in the light of three developments which characterise the history of post-1947 India. The first is the general failure of the mixed economy model and the concomitant decline of Nehruvian socialism, secularism and other national values such as non-alignment. The second is the emergence of so-called liberalisation under the direct influence of the World Bank-IMF guidelines in the 1980s, its severe economic consequences and the rapid decline of the Congress as the most broad-based representative political organisation in India. Thirdly, the dwarfing of the Congress and its inability to contain and positively channelise the socio-economic forces unleashed by the logic of independence. This finally vacated an important political space for Hindu nationalism in Delhi and several Indian states. The book contains a lively discussion on community conflicts, communal violence, federalisation of the Indian polity, the rise and prominence of a majoritarian, exclusivist nationalism and the role of the Indian state in the above mentioned context. On the whole the volume refutes the primordialist bias entertained by certain analysts of ethnic conflicts. It suggests, rather discerningly, that *perceptible ethnicity and economic causes might provide only the necessary conditions* of social protest and conflict. The *sufficient conditions* for such phenomena are more often than not transparently political. Other social scientists, like the fabled blind men interpreting an elephant, may disagree but the distinction between the necessary and sufficient conditions in the causation of history incidentally augments the dialectical interpretation of the base-superstructure model.

The introduction to the book underlines its emphasis on politics and power. The problematic of community consciousness and derivative communalism in contemporary India is directly related to the declining Nehruvian state and the almost simultaneous growth of multifarious community conflicts. After independence, as the politico-economic project of the Indian ruling elite began to fail, the combination of an increasing "normative and organisational vacuum" and the "intensification of democratic politics" paved the way for the emergence of community mobilisation on multiple lines. The 'us versus them' problem characterising Indian society today can hence be located in a political context which redefines ethnicity in specific regional, linguistic or caste interests articulated by subnational and national elites. The editors define 'political conditions' as the 'nature and actions of the state on the one hand, and power competition and movement of politics on the other hand". Consequently the chapters of the volume are supposed to "address the interaction between the state and politics... and the emergence, intensification, transformation and/or decline of community identities". The chapters manage to achieve this objective with a certain amount of academic rigour not usually associated with contemporary political writings.

In the first chapter Atul Kohli tries to answer the question whether democracies can accommodate ethnic nationalism with reference to a model based on the rise and fall of self-determination movements in India. He asserts that the nature of western democracy is different from that in the developing countries and this difference, evident in the culture, polity, economic development and enhanced state intervention in social life is responsible for the emergence of ethnic nationalisms in the latter. On the whole the "introduction of competitive elections and mass suffrage amidst weak institutions will repeatedly generate expansionary political pressures in these democracies, that is pressures towards a more equal distribution of power in society". This probably explains "why democracy in developing countries tends to be as much a source of, as a solution to, power conflicts". In addition, the rise and future of self-determination movements also depends upon the degree of the institutionalisation of central authority and leadership strategies. On the basis of this assertion an inverse U curve model of ethnic movements is constructed by Kohli. The model comprises (a) a highly institutionalised central state, (b) an accommodating ruling strategy and, based on these two, (c) a self-determination movement plotting an inverse U curve.

In short, in situations where the central leadership is willing to give important political concessions to localised self-determination, such movements start reach the point of negotiations, get exhausted in the process and finally decline and end. In contrast the author cites the example of weakly institutionalised Czechoslovakia and Nigeria in a table which illustrates the model with examples. However, in this reviewer's opinion, a historical comparison with the over-centralised former USSR – which could never resolve its nationalities problem despite impressive socio-economic development – would have added greater weight to Kohli's pragmatic submission. The author examines his model with reference to three well-known case studies in India and, after a brief survey of the better known political events associated with Tamil, Sikh and Kashmiri

nationalism since the 1950s, arrives at the conclusion that Indian democracy can accommodate ethnic nationalism. That may well be true but the model presents four main problems.

Firstly, despite the installation of the latest National Conference government in Kashmir it is difficult to predict the future of ethnic nationalism in the valley. Secondly, a compromise with a regional subnationalism often opens the door to more compromises with subregional self-determination movements based on tribal and other identities. The peculiarity of this problem, highlighted in the case of the north-east, is addressed by another chapter in the volume analysed below. Thirdly, the centre usually compromises with regional elites leading self-determination movements. But in the long run this political strategy of elite-elite compromise can run into rough weather as the hegemony of the regional elite over ethnic groups breaks down. Faced with this frightening prospect what options are the ruling classes left with? Finally, on the basis of recent history, it can be asserted that the Indian state's extra accommodation of Hindu nationalism has weakened its democratic nature and heightened the insecurity felt by the religious and other minorities. How regimes address this problem in future remains to be seen.

The second chapter on religion, reservations and riots and the politics of ethnic violence in India by Sunita Parikh contains a good account of the Mandal controversy and a capable overview of the Mandal-Masjid riots in Gujarat, Bihar, Karnataka and Delhi. The author travels on familiar territory while narrating an important story of social strife in our times. However, from the viewpoint of developing social science theory, the most interesting part of her paper comprises a discussion on the meaning of 'ethnic nationalism'. She draws upon the specialised work of Connor and Brass to explain the difference between the primordial notion and political concept of ethnicity. Connor has asserted the autonomy of ethnicity in his work whereas Brass suggests that ethnicity is more instrumental than primordial. Hence ethnic nationalism, in general, means the manipulation of symbols by national, subnational and subregional elites. This, to interpret Brass further, leads to identity formation under, what Gramsci would have called, elite hegemony. This interpretation of ethnic nationalism, or even nationalism *per se*, would substantiate the notion of false consciousness entertained by Marxists since the 19th century. That is so because nationalism tends to build on identities which are usually not based on the location of individuals in the mode of production.

But Parikh's paper is disappointing in some ways. On page 38 she asserts that reservations for scheduled castes "do not cause much antagonism on the part of other Indians because the full quota of reservations is almost never utilised, so competition over scarce resources is rarely a problem". This is factually incorrect because reservations for scheduled castes has always been an important issue of caste mentality in the Indian middle classes irrespective of quotas being filled. The upper caste Hindus have, in general, believed that Congress governments have pampered the scheduled castes by giving them job reservations, age relaxation and easy promotions, etc. On page 40 the author claims that "Devi Lal brought into the National Front a critical and highly coveted vote bloc: lower caste small-scale farmers in north India". This description is incorrect. Devi Lal, as everyone knows, is a jat leader of Haryana and the backward jats are not 'small-scale farmers'. On page 41 we find the BJP mentioned as a member of the National Front in 1990 whereas the BJP, as Parikh's source the *India Today* would easily affirm, was merely extending support to V P Singh from outside. Similarly on page 45 the central government is casually called 'national government'. On page 42 a confusion arises with reference to the Mandal controversy. The author asserts "that the majority of Indian public opinion supported the implementation of the Mandal report". It is unclear whether she is referring to public opinion as it appeared in the highly biased media reporting of those days or the public in general. Furthermore, had the author set her arguments in the context of liberalisation, the dislocation of the Nehruvian system, growing unemployment and social anxiety in the 1980s her conclusion that the BJP has succeeded because of the choices made by the Congress would have appeared more relevant to the discussion.

Chapter three 'The Politics of Processions and Hindu-Muslim Riots' by Christophe Jaffrelot is based on the line of his reputed work 'The Hindu Nationalist Movement in India' (Paris, 1993; Viking 1996). The main hypothesis of the author, following Brass, is that "the instrumentalisation of religious processions by ideologically minded leaders largely explains the way these rituals have become conducive to communal riots". The concept of crowds dissolving into a state of *communitas* opposed to selected targets dovetails into this process. To begin with, Hindu nationalists like Tilak used religious processions as 'unitarian mobilisations' which promoted an aggressive identity formation amongst Hindus. From there the transition to violent communalism was only a step away. During the colonial period leaders like Moonje, Hedgewar and Madan Mohan Malviya played an important role in developing the technique of processions. These political leaders with "Hindu militant leanings invested this procession with the purpose of strengthening the majority community *against* the Muslims" (emphasis in original). After independence the pattern of communal mobilisation around symbols, processions and potential violence was routinised. This led to a phenomenal increase in procession and yatra politics and associated communal violence. The Indian state made matters worse by becoming partisan during communal situations and riots and not punishing biased officers. To combat communalism it is significant to note that Jaffrelot calls a spade a spade and concludes that given sufficient political will communal violence can either be prevented or easily put down.

The next paper 'Community and Caste in Post-Congress Politics in Uttar Pradesh' by Zoya Hasan reproduces some of the important arguments presented in her book *Quest for Power: Oppositional Movements and Post-Congress Politics in Uttar Pradesh* (OUP, Delhi, 1998). She carries forward Jaffrelot's thesis regarding the salience of congregations, processions and pivotal symbols to communal politics while explaining the rise and limitations of hindutva in UP. The Ayodhya movement, we are told, was primarily political although history was harnessed to it by the communal ideologues. But the movement was assisted by the pragmatic communalism of the Congress. Hence hindutva reached its peak in UP during 1990-92 when the "anti-Mandal and Ram Janmabhoomi schemes were conflated in the service of an implicit class strategy of domination". But the limitations of the Sangh parivar are stated in the following words: "The rise to power of the OBCs accompanied simultaneously by an autonomous mobilisation of dalits constitutes the biggest impediment to the ideological and political expansion of Hindu nationalism."

The fifth chapter on the evolution of the party system in Tamil Nadu (TN) by Arun R Swami, based on his doctoral work, is a refreshing account of contemporary Tamil politics. The party system in TN developed in two stages. The first was the consolidation of a broad-based Tamil sentiment against the brahmin (read aryan

and north Indian as well) domination of Tamil society. This movement for the empowerment of the Tamil nation was pioneered by the Justice Party and resulted in the formation of the DMK. The second stage comprised the split in the DMK and the emergence of the protectionist MGR-led AIADMK. Swami lucidly narrates why this occurred and how the politics of 'empowerment populism' versus 'protection populism' came to underscore a stable two party-system in TN. The distinction between empowerment and protection is crucial to understand the rhetoric and substance of ethnic nationalism. The lessons are evident in the success of the MGR phenomenon. The success of this star-turned chief minister was predicated upon the realisation that without specific economic content populism cannot go very far. Hence the MGR regime paid special attention to welfare schemes, subsidies, prohibition and women and their problems. However, Swami's submission that TN presents a paradigm towards which the rest of India is gradually moving is problematic. The two-party system could evolve in TN primarily because of the historical, social and geographical peculiarity of that state. This made the historical contradiction of Tamil society and its alienation from aryan domination almost unique. Can this be repeated elsewhere in India? Given the current socio-political conditions in states like Bihar, UP, MP and Rajasthan it is difficult to see two consistent historic blocs, represented by two parties, emerging in the near future.

The sixth chapter on the rise and fall of democracy in Jammu and Kashmir by Sten Widmalm presents a challenging account of the democratic process in the state since 1947. Although the paper treads familiar ground some of its generalisations are worth noting The paper makes it clear that between 1977 and mid-1980s the political conditions in Kashmir "did indeed breed integration". Even the JKLF sources point out the futility of starting a secessionist movement in the early 1980s. But democracy declined in the period 1983-89 due to the problems which surfaced in the National Conference after Sheikh Abdullah's death in 1982 and the ambitions of Indira Gandhi and her slaves like Jagmohan. In short, therefore, the failure of the elite in New Delhi and Kashmir together put paid to the democratic process in the state and opened the floodgates to militancy.

Matters became worse when Farooq Abdullah foolishly allied with Rajiv Gandhi during 1986-87 to create an unpopular political cartel in the valley – called 'consociationalism' by the author. Once the liberal opposition to the Congress vanished and the democratic expression of Kashmiriyat was throttled the fundamentalist elements became prominent. These developments present a classic demonstration of a democratic decline caused by elite shortsightedness. The state also shows that although the consistent neglect of socio-economic development can cause conflicts poverty does not automatically lead to violence. The sufficient conditions necessary to spark off insurgency are political because democracy, beside fair elections and legitimate opposition, also means observance of institutional fidelity and the universal applicability of the rule of law. If these decline, a combination of charisma, myopia, nepotism and corruption destroys civil society altogether.

The seventh paper by Jyotirindra Dasgupta on community, autonomy and insurgency in India's north-east is an excellent story of working federalism in a lesser known context. It is true, as Dasgupta contends, that the region has suffered a negative media representation and the excessive attention to regional violence has sidelined a fair democratic process. No doubt the area has specific problems because of a high concentration of tribal population and large-scale migration from Bangladesh. But the reconciliation of the AGP to the Indian Union and the Assam Accord of 1985 undermines any canard against the Assamese. More problems in Assam arose because the AGP failed to deliver on an agenda crafted during its anti-New Delhi movement. Hence ULFA phenomenon was produced more by the failure of the Assamese middle class than by a secessionism popular among the Assamese in general. Furthermore, the Assamese government was later accused by other linguistic-ethnic groups, namely, the plains tribals [Bodos], of promoting Assamese chauvinism. This repeated a familiar cycle with federal authority being called in to sort out inter-ethnic conflict. In the ultimate analysis the Bodo Movement, Bodo Accord of 1993 and connected violence highlights the self-defeating nature of ethnic nationalism in an "ethnically plural context".

How will this inter-ethnic conflict end? According to Dasgupta the Bodo experience and the concept of granting tribal groups autonomy within a federal structure, evident in the creation of large tribe-dominated states like Nagaland, Meghalaya and Mizoram, offers a solution. The model presents a co-ordination of federal, state and sub-regional district and regional councils for a balanced economic, political and social development of the country. The system conceived by Indian policy-makers is perceived as dynamic. It evolves in accordance with emerging regional sub-regional and tribal demands for the decentralisation of power. We can add 'panchayati raj' for good measure to complete the picture of India's federalising polity. The Sixth Schedule of the Constitution, the 73rd Constitutional Amendment and other such constitutional and administrative provisions should be viewed in this context. But how far can the accommodation of ethnic nationalism go? To what extent can compromises be made with the elite within these ethnic groups? In answering these questions the danger of seeing too much in the politico-administrative model sketched above probably cannot be avoided. Maybe, the only long-term solution to these intractable 'ethnic' problems lies in economic and industrial development, urbanisation, education, growth of cosmopolitanism and a recasting of social conflict possibly in terms of classes and their representative parties.

However, chapter eight of the rebirth of the SS in Maharashtra seems to disqualify the thesis of urbanisation. The growth of the discourse and organisation of the SS in India's most industrialised state shows that tribals and peasants are not indispensable to the flourishing of ethnic nationalism. The authors, Mary Fainsod Katzenstein, Uday Singh Mehta and Usha Thakkar, clearly establish the rise of the SS in a context comprising critical Congress, business and state failures in Maharashtra. The historical conjuncture of the 1980s and the emergence of popular hindutva focused on the demonisation of Muslims in much of north and western India propelled the SS from the margins of mainstream politics to its centre in one of India's richest states. However, the SS could utilise this historical opportunity because since 1966 its organisational structure, often encouraged by the anti-leftist forces in Bombay, had grown virtually unchecked in Maharashtra's industrial belt. Hence when the communal moment arrived the SS was ready for it. This analysis reinforces two salient generalisations upheld by historians and made throughout the volume. Firstly, the fact that communalism is conjunctural and primarily political and secondly, its growth is predicated upon the neglect of law and democratic institutions in civil society.

On the whole the book is stimulating but future editions could do without some errors. For instance, the page on Abbreviations expands LTTE into Liberation of

Tamil Tigers Eelam whereas it should be Liberation Tigers of Tamil Eelam. On page 126, in Swami's article, the mistake is repeated. The NC is expanded to mean the Jammu and Kashmir National Congress (!). Probably what the editors, following Widmalm's contribution, imply is the National Conference. The Glossary also requires revision. The Arya Samaj, for example is called a "Hindu reformist organisation". So is the RSS, then what is the historical difference between the two? Some details should have been provided. The word 'firangi' is translated as foreigners whereas a more appropriate, though not exact, phrase would have been 'white foreigner'. The 'burkha' [should be 'burqa'] is called a "long garment with headpiece which can cover the wearer from head to foot". The phrase 'worn generally by Muslim women' should have been added. The word 'lathi' is said to mean a stick. But lathi, in common parlance, is a specially prepared weapon often tipped with metal. The apposite world would have been a stave. Finally 'varna', most unfortunately, is translated as caste and 'yajna' as sacrifice. For the former the phrase 'theoretical vedic-Hindu social order' could have done and for the latter 'vedic invocation of gods' would have served better. After all the word for sacrifice is 'bali' which a particular yajna may not necessarily involve.

Economic Geography of Global Capital

Buddhaheb Ghosh

Spatial Dynamics of International Capital: A Study of Multinational Corporations in India by Swapna Banerjee-Guha; Orient Longman, Calcutta, 1997; pp xiii + 285, Rs 300.

EVER since the industrial revolution the individual closed economies of the world have been integrating into the world economy through trade in goods and services. During the initial phases, before the full-fledged spread of imperialism, trade used to take place in one's own chosen lines of production which evolved over centuries of 'autarkic' development. Over a long period progress in industrial and agricultural production could not easily cross national boundaries due to numerous hindrances. That is, there was long-run hegemony over very selective commodity production due to technology advantages even at a rudimentary level across countries. The major advantages from such closed world production system used to accrue to those nations that pioneered in developing the required technology for the production of an ever-increasing list of goods. But development of modern means of transport created the grounds for making significant inroads into the closed nature of world economy. Although such specialisation was, to start with, determined by (1) availability of resources and (2) command over information and technology, the progress of large-scale machine industry stimulated a rapid growth of production, and created the need to search for newer sources of raw materials and market. The late 19th and the first half of the 20th century witnessed a spectacular expansion of railway and road network in most countries; and the same time, the merchant-marine tonnage increased sharply as steamship replaced sailing vessels [Kindleberger 1996].

The world market that emerged in the 16th century as a result of great geographic discoveries became the 'third component' of the world economy. With the development of capitalism, Europe, North America and North Africa were integrated into the world economy at a faster rate through international trade. It was world trade in goods and services first, and the world market that ushered in the 'new history of capital'. There are two basic kinds of geographic division of labour: international and interregional (within a country). As market for capital in an individual developed capitalist economy was saturated, stimulating growth of large-scale industry along with patented technology caused the flight of capital – the most scarce resource in the other world – from the advanced to the backward nations. As a result, employment opportunities for skilled labour increased substantially. This called for people to migrate from backward to advanced countries and from poorer to advancing regions within the backward countries. Hence, the development of technology and saturation of market (for both commodities and capital) in the capitalist countries helped the division of labour to cut across national boundaries. This transboundary nature of capital in association with division of labour consists in individual countries' specialisation in the production of certain products, and in exchanging them for others. This international division of means of production and distribution has had both progressive and retrogressive repercussions upon further development of an economy. History of international movement of capital in recent centuries simply proves its inevitability in shaping the technological evolution of a society. For example, the rise of Korea, Hong Kong, Taiwan, Malaysia and the like in the second half of this century is a very recent testimony to this hypothesisation. However, far from being guided by co-operative motives the main motivation behind such mobility of capital is the conventional rationality of profit maximisation on the part of the owners of capital. Naturally then, the partners being highly unequal in knowledge, information and capability, the 'exchange relationship' between the multinational corporations and the host country firms (even if public companies) is basically unequal. One interesting point very often missed by researchers in the LDCs is that economic significance of foreign multinational corporations (FMNCs) doing large-scale business even in developed country markets has increased rapidly since the 1970s [Friedman, Gerlowski and Silberman 1992].

The book under review addresses some of these issues in the context of MNC activities in India during the last few decades. The most notable aspect of the book is that a geographer writes it. Such an attempt has been due for a long time. In the author's own words, "This is a book about the spatial relation of international capital. More precisely, about the operations and organisations of multinational corporations – one of the most important organisational forms of international capital – with special reference to India as a host country during the late 1980s and early 1990s." The limited role of research in geography, or for that matter in economic geography, in India is very understandable at a time when Paul Krugman (1989) accuses the trend in the mainstream economics in a recent article as follows: "Even now not one of the best selling introductory textbooks in economics contains a single index entry for 'location', 'space', or 'regions' (most do not even contain an entry for 'cities')". I must not avoid mentioning that in the present book the required emphasis on geographical aspects of international capital, which could be very fruitful, is sadly lacking here.

This is not a bextbook, rather a sort of research outcome. Hence it is better-evaluated chapter by chapter. There are six

›road chapters. The first chapter discusses :he significance of MNCs in the world :conomy by pointing out the spatial scale of the expansion of MNC activities. While going beyond the limits of India, one section looks at the geographical spread of MNC activities during the post-1970 periods. Even without undermining the novel attempt of the author, the most obvious lacunae of this chapter is that the approach is too naive to raise some emerging issues in the field of host country's evolution of industrial activities as a result of MNC operations.

The second chapter deals with the organisation and operation of the MNCs in the light of sector and space. Here the area covered is commendable. It is analysed at length how the MNCs resort to various tricky strategies to evade taxation; by-pass export endeavours and thus affect the balance of payments negatively. But a potential for empirically showing the interaction between the rationality of the MNCs and the host country 'interest' has been lost. Here the author reached close to the very recent branch of 'new trade theory', and suddenly got into the third chapter. According to the author, this chapter seeks to explore the dynamics of foreign direct investment in India during the post-1947 period. Unfortunately, the analysis is mainly confined to the 1970s and 1980s. One major weakness of this chapter is the complete silence on technological characteristics of different product lines from MNCs of different countries in the context of domestic technology.

The significance of chapter four cannot be exaggerated even in the post-reform period. It deals with spatial dynamics of MNC operations in India. A detailed analysis is done with regard to the regional distribution of MNCs in India. But no attempt is made to search for the factors leading to such biased distribution of FDI. Apart from addressing the unequal infrastructure facilities across the states, which have been worsened in the post-reform period, the author could have considered the role of locational factors in shaping external economic events. At a time when liberalisation and globalisation have become integral parts of domestic economic policy there is tremendous potential for future inter-disciplinary research in this area. And above all, it could play a strong positive role in influencing public policy for curing rising regional disparity.

Chapter five deals with the expansion of foreign capital in the consumer goods sector in India with special reference to two giant corporations, Proctor and Gamble, and Unilever. It has also touched upon the impact of expanding consumer goods production by the MNCs on the regional sociocultural variables. But it has failed to touch the factors leading to abrupt rise in MNC-induced 'consumerism' even in regions with widespread poverty.

Finally, chapter six highlights the basic points in the trajectory of uneven development in India's spatial economy. One crucial limitation of this chapter is the period of analysis. It unfortunately ends in 1991. Recent studies in the post-reform period have shown that while there is tremendous regional disparity in the degree of openness across the states, foreign capital investment has largely aggravated the rising income disparity through further concentration of industrial activities in selected regions [Ghosh and De 1998]. One thing is clear after nearly a decade of half-hearted reform that the rhetoric of anti-liberalisation will be ultimately responsible not only for rising inequality of private manufacturing investment, but also for rampant migration of human capital (engineers, MBAs, CAs and scientists) away from the losing to the gaining regions. The latter factor has much more positive impact upon the 'confidence' of the prospective investors. That is, if the spatial geography is the 'first nature', then the second nature of subsequent human settlement creates conditions which are conducive for further unevenness.

Banerjee-Guha's book is addressed to researchers from both social science and Indian geography. But the major limitation of the book is that it is silent on policy implication. As is well known, choice of investment location of the MNCs is determined by the strength of market, availability of raw materials, infrastructure facilities, labour market conditions, state promotional efforts, real estate rates, state and local personal taxes and the like across regions. Moreover, there may be significant variations among Japanese, European and American investors in their choice determinants. No light is thrown on either of these issues. We should expect the author to address them in future writings.

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Consumption of Gold in India

Trends and Determinants

A Vaidyanathan

The gold stock of the country at the end 1997 was close to 10,000 tonnes valued at current prices on the world market at $ 120 billion. This is nearly four times the country's exports and official foreign reserves in that year. The continued rapid growth of gold inflow into the country can have significant consequences in terms of the scale and functioning of the hawala market, the availability of foreign exchange for other uses and the health of the balance of payments. The factors determining the demand for gold and the sources of finance for importing it therefore merit closer study.

I
Trends in Consumption: An Overview

INDIA produces hardly any gold; but it is the second largest consumer of the precious metal in the world. The only important gold mine in Kolar has been contributing a miniscule proportion of total annual absorption. Practically the entire demand is met from imports and recycling of previously accumulated stock and scrap generated from it.

The country has long been importing substantial amounts of gold: Between 1831 and 1931, imports averaged 37 tonnes per annum. The 1930s – the period of the great depression – were marked by an exceptionally large net outflow of gold averaging around 140 tonnes a year. This tendency was reversed during the following decade, when there was a net gold import of around 31 tonnes per annum. Thereafter, despite the imposition of a ban on gold imports in 1947, net imports (practically all of it illegally smuggled) increased progressively to 80-90 tonnes per annum during the 1950s, and close to 150 tonnes per annum during the 1960s and early 1970s. After a sharp decline in the 1970s, gold imports surged again during the 1980s and, following the lifting of the ban and permitting of imports in 1992, the rate of imports increased sharply in the 1990s (Table 1).

A rough[1] picture of overall picture of gold consumption and sources of supply during the 1990s is given in Table 2. There was a big spurt (about 80 per cent) in estimated consumption following the liberalisation of gold imports in 1992. Consumption seems to have remained around 400-425 tonnes in the next couple of years before resuming the rising trend. Estimated consumption in 1998 was more than thrice the level recorded in 1990 and nearly 70 per cent higher than in 1992. Domestic gold scrap is estimated to have met nearly a fourth of the demand in 1990. The scrap supplies, accoridng to trade estimates, has remained more or less stable in the past. Allowing for a 3 per cent annual increase in scrap availability - in the present state of knowledge this can be no more than an guestimate[2] – an increasing share of the demand has been met by imports.

Till 1991 practically all these imports were obtained by smuggling. But with liberalisation, the share of smuggled gold has progressively declined both in absolute terms (from an estimated 290 tonnes in 1992 to 94 tonnes in 1998) and even more so in relation to total consumption (from over 70 per cent in 1990 to less than an eighth in 1998), This decline is the direct result of progressive liberalisation of gold imports, (subject to payment of a 15 per cent duty) and a considerable narrowing in the margin between international and domestic price of gold. This margin in 1998 was close to the import duty on gold. Note however that the volume of smuggling (90-100 tonnes a year) remains quite large: A smuggler who successfully escapes the customs net still stands to make a substantial profit!

II
Economic Impact of Gold Imports

Gold, by itself, does not add much to production or productive capacity. However the foreign exchange used for importing it in effect reduces the availability of this resource for other imports (including raw materials, intermediates and capital equipment) needed for current production and expand productive capacity. In the Indian context, the magnitude of foreign exchange expended on gold imports has been large and growing. In 1970, India's imports, at the prices prevailing in the world market at that time, would have cost 2.2 billion US dollars, equivalent to about one-eighth of merchandise exports and 8 per cent of merchandise imports. The corresponding figures for 1997 being 7.5 billion US dollars (equivalent to about a fifth of exports and one-sixth of imports).

Prior to 1992, gold imports, being illegal, were financed by the proceeds of under-invoicing of exports, over invoicing of imports, earnings of migrants workers remitted through hawala channels and smuggling of silver and contraband drugs. These transactions did not figure at all in the country's trade or payments statistics. After 1992, the value of legal gold imports cleared through the customs are included as part of merchandise imports in the balance of payments data (but not in trade statistics), an equivalent amount being recorded as transfer receipts under 'invisibles'. The nature and

Table 1 Net Import of Gold into India *(Tonnes)*

Period	Total Quantity	Annual Average
1831-1931	3700	37
1931-40	(-)1400	(-)140
1941-50	311	31
1951-57	653	93
1958-63	520	87
1964-67	720	180
1968-73	815	136
1974-80	160	23
1981-90	1550	155
1991-97	2792	399

Notes. (1) Figures for 1831 to 1940 based on official trade statistics During this period import and export of gold was legal The figures cited probably relate to undivided British India

(2) Gold imports from late 1940s till 1990 are estimates of Consolidated Gold Field and Gold Field Mineral Services as cited in Sarma et al op cit For subsequent years estimates of World Gold Council Except for imports through officially approved channels (mainly of facilitate exports of ornaments and jewellery), imports were illegally smuggled into the country

Source: Sarma et al (1992), 'Gold Mobilisation as an Instrument of External Adjustment. A Discussion Paper', RBI, Bombay 1992, Tables 1 and 5. For the 1990s World Gold Council estimates (see Table 2)

sources of the latter are not indicated for lack of information. Clearly they, as well as the resources needed for the still substantial smuggled gold, must have been derived from one or the other of the extra legal sources cited earlier. Possibly their relative importance has changed. In effect the hawala market continues to operate but with indirect legal sanction given by the gold import policy.

The magnitudes involved are large in relation to the size of the country's foreign trade and payments: The gold stock of the country at the end 1997 was close to 10,000 tonnes valued at current prices on the world market at $ 120 billion: This is nearly four times the country's exports and official foreign reserves in that year. Their continued rapid growth can have significant consequences in terms of the scale and functioning of the hawala market, the availability of foreign exchange for other uses and the health of the Balance of Payments. The factors determining the demand for gold and the sources of finance for importing it therefore merit closer study.

The other characteristic of gold is that it is a highly liquid store of value. It represents command over resources both at home and abroad which can, in principle, be invoked whenever necessary. Its physical depreciation is negligible; and it can be readily converted into cash by sale in the world markets for acquiring other resources both at home and abroad. Though it does not earn any interest and though it is not any longer used as the standard for fixing currency values, the fact that there is a well developed world market for the metal and that its prices have until recently increased much faster than the general price level makes it a particularly attractive asset.

Insofar as gold is used as an ornament, it can be treated as a durable consumer good. But this function does not in any way dilute its advantages as a liquid, risk-free asset. In any case, not all gold is held in the form of ornaments; a part (perhaps a large part) -- no one knows how much -- is held as hordes of bars. Altogether, from the country's viewpoint, gold holdings, whether as bars on ornaments, are no different from foreign exchange holdings. That the bulk of it is in the hands of private individuals who may or may not be willing to convert it into other assets is another matter, and does not detract from this feature. Of course it is important, in such a context, to understand why people prefer to hold gold and the conditions under which they will add to or reduce the stock of it in their hands.

If accumulating gold, in principle, is no different from accumulation of foreign exchange reserves or investment in foreign financial assets, then they must properly be counted as part of the economy's savings. The more so because investment in gold is, in a real sense, a substitute for investment in other assets. It is significant that during the last few years, the value of additions to gold stock accounts for over 20 per cent of the private non corporate sector's investment in financial assets. Also this proportion has been varying: from about 31-32 per cent in 1970, it fell to a low 2 per cent in 1979, but has since risen more or less progressivley to reach 22-23 per cent in 1996-97 (Figure 1).

Exclusion of gold from the estimates of domestic savings thus understates the household and overall domestic savings rate, and this bias has been increasing in the last 2 decades. Thus during the early 1970s the household savings including gold averaged around 12.2 per cent compared to 11.4 per cent as per official estimates; the difference is much narrower in the early 1980s the respective rates being 14.1 per cent and 13.5 per cent respectively; but thereafter the divergence increased. During the mid-1990s (1994-95 to 1996-97) the household saving rate including gold averaged 21.6 per cent compared to 19.8 per cent excluding gold. This again emphasises the importance of including gold accumulations as part of domestic savings and focusing on the factors determining their level and disposition.

III
Factors Determining Gold Imports

Surprisingly there are few systematic studies of these issues. The only work which attempts to explore them, and is available in the public domain, is a paper published by the Reserve Bank of India in 1992 [Sarma et al 1992]. Its primary purpose was to suggest ways in which in the short run, "gold already in the possession of the household sector" could be mobilised and used to "release external constraints" and, in the long run, "eliminate incentives for unofficial imports by narrowing the price differential between international and domestic markets" and to "influence the asset preferences of households in favour of productive use of capital" (ibid). In the process it provided a useful compilation of available data on production, imports and prices of gold, discussed the factors affecting the supply of and demand for gold and even attempted to empirically estimate supply and demand functions.

The study identified the following major factors influencing demand: the price of gold, 'rural surplus' and rural income distribution, magnitude of 'black' income generated, rate of return on alternate financial assets and the general price level. The relevance of the price of gold and returns to alternative investments is obvious enough. Rural surplus not defined by the authors and income distribution were seen to be a function of irrigation and technological change. As the latter spread, marketed surplus and hence 'rural surplus' increases and generates "a highly skewed income distribution". All of which lead to higher demand for gold. Fertiliser consumption was used as a proxy for these factors in the estimated demand function.

The authors further argued that much of black income, which is an important source of demand for gold, "looks like originating in the services sector rather than in commodity producing sectors". Therefore the income generated in the services sector was used as a proxy for black income. The general price level was expected to reduce the demand for gold by reducing the purchasing power for acquiring jewellery and reducing the real return on gold. These effects were, it was argued, likely to more than offset increased skeweness of income distribution as a result of inflation.

Table 2: Trends in Gold Consumption after Liberalisation

(Tonnes)

	1990	1991	1992	1993	1994	1995	1996	1997	1998
1 Total demand[1]	236	260	454	424	415	477	508	737	770
2 Less:scrap[2]	60	70	70	70	70	71	75	75	76
3 New gold (1)-(2)	176	190	384	354	345	406	433	672	694
4 Official imports[3]	6	40	95	114	178	249	298	526	600
5 Non-official imports[4] (3)-(4)	170	150	289	240	167	157	135	146	94

1 Total demand figures from World Gold Council gleaned from newspaper reports. 1998 figure adjusted to annual basis using data for first three quarters and assuming fourth quarter demand to be slightly above the third quarter figures.

2 Sarma et al (1992) give estimates of scrap for 1981 to 1990. The figure is more or less constant around 50 tonnes during the 1980s The figure for 1990 is 60 tonnes. For other years the difference between the World Gold Council estimate of total demand and total gold imports as given in Table 3 is taken to be met by scrap.

3 Figures of official imports from 1992 based on WGC estimates. 1990 official imports were negligible (6 tonnes); 1991 figures derived as difference between total gold import and unofficial imports.

4 Unofficial imports for 1990 and 1991 as given in Sarma et al (1992) (based on estimates of Consolidated Gold Field and Gold Field Mineral Services Ltd). For other years derived as difference between total imports and official imports

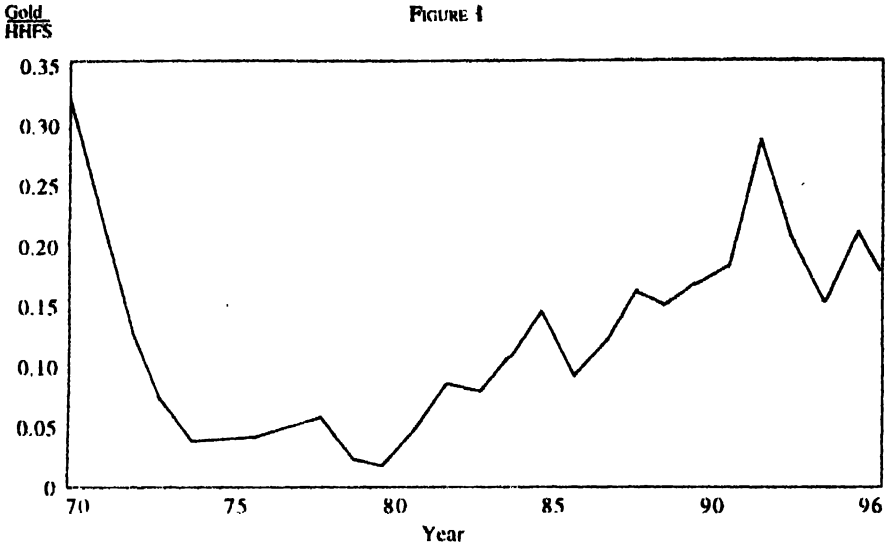
TABLE 3: GOLD IMPORTS AND RELATED MACRO ECONOMIC VARIABLES, INDIA: 1970-71 TO 1997-98

Year	Gold Imports (Tonnes)	GDPR Rs (10^9)	GDPN Rs (10^9)	GDSN Rs (10^9)	HHSN Rs (10^9)	HHFS Rs (10^9)	Price of Gold Mumbai (Rs/10gm)	Price of Gold London (Rs/10gm)	Gold (Value) Rs (10^9)	GDPDF	IDGP	IOSP	Gold Price Rel to GDPDF	Gold Price Rel to IOSP	MARG	HHS/GDPN	HHS/GDS	HHFS/GDPN	HHFS+G/GDPN	RI
70-71	217.00	904.26	431.63	67.83	48.73	12.7	184.96	88.71	4.01	44.10	12.20	62.60	27.66	19.49	1.08	11.30	71.84	2.94	3.87	7.60
71-72	176.00	913.39	462.57	75.08	54.77	15.5	200.16	113.22	3.58	46.50	13.10	59.50	28.17	22.02	0.77	11.80	72.95	3.35	4.12	6.10
72-73	110.30	910.49	510.05	78.33	57.13	21.3	242.14	173.74	2.67	51.30	15.90	60.40	30.99	26.32	0.39	11.20	72.94	4.18	4.70	4.50
73-74	63.60	951.92	620.07	114.32	85.62	36.1	369.23	290.50	2.35	60.00	24.20	71.80	40.33	33.70	0.27	13.80	74.90	5.82	6.20	2.60
74-75	15.70	962.97	732.35	127.26	86.10	23.7	519.10	424.76	0.81	69.60	34.10	70.40	48.99	48.44	0.22	11.80	67.66	3.24	3.35	0.90
75-76	26.20	1049.68	787.61	149.28	105.34	39.2	544.99	416.06	1.43	67.80	35.80	60.90	52.80	58.78	0.31	13.40	70.57	4.98	5.16	1.30
76-77	33.80	1062.80	848.94	180.30	126.98	48.5	549.50	356.37	1.86	72.00	36.10	65.10	50.14	55.45	0.54	15.00	70.43	5.71	5.93	1.50
77-78	40.50	1142.19	960.67	202.30	146.86	58.5	637.92	433.95	2.58	76.50	41.90	67.30	54.77	62.26	0.47	15.30	72.60	6.09	6.36	1.70
78-79	45.20	1205.04	1041.90	241.38	177.47	66.6	791.22	550.21	3.58	77.90	52.00	81.70	66.75	63.65	0.44	17.00	73.52	6.39	6.74	2.00
79-80	10.90	1142.36	1143.56	246.98	173.79	60.8	1158.75	1053.03	1.26	89.70	76.10	89.70	84.84	84.84	0.10	15.10	70.37	5.32	5.43	0.70
80-81	8.30	1224.27	1360.13	287.86	218.48	86.1	1522.44	1485.31	1.26	100.00	100.00	100.00	100.00	100.00	0.03	16.00	75.90	6.33	6.42	0.60
81-82	25.40	1298.89	1597.60	316.00	218.50	98.0	1719.00	1209.71	4.37	110.30	112.90	118.90	102.36	94.95	0.42	13.60	69.15	6.13	6.41	2.00
82-83	60.00	1339.15	1781.32	337.80	230.40	127.9	1723.00	1250.36	10.34	119.10	113.20	110.40	95.05	102.54	0.38	12.90	68.21	7.18	7.76	4.20
83-84	53.00	1448.65	2075.89	392.90	293.40	132.8	1859.00	1342.24	9.85	129.10	122.10	125.30	94.58	97.45	0.38	14.10	74.68	6.40	6.87	3.20
84-85	94.50	1504.33	2313.43	421.80	317.00	181.0	1984.00	1294.19	18.75	138.80	130.40	136.00	93.95	95.88	0.53	13.70	75.15	7.82	8.63	5.60
85-86	123.40	1565.66	2622.43	519.30	381.60	184.6	2126.00	1290.05	26.23	149.60	139.70	221.70	93.38	63.01	0.65	14.60	73.48	7.04	8.04	6.40
86-87	88.40	1632.71	2929.49	548.00	415.60	233.1	2324.00	1577.73	20.54	159.90	152.70	230.60	95.50	66.22	0.47	14.20	75.84	7.96	8.66	4.70
87-88	99.20	1703.22	3332.01	696.30	566.30	267.8	3082.00	1911.91	30.57	173.80	202.50	207.30	116.51	97.68	0.61	17.00	81.33	8.04	8.95	5.10
88-89	135.00	1884.60	3965.93	846.70	682.50	271.1	3175.00	1959.88	42.86	187.90	208.60	247.50	111.02	84.28	0.62	17.20	80.61	6.84	7.92	5.90
89-90	172.50	2014.50	4568.00	1023.70	833.00	380.0	3229.00	2063.26	55.70	203.40	212.20	359.40	104.33	59.04	0.57	18.20	81.37	8.32	9.54	6.30
90-91	170.00	2122.80	5355.00	1300.00	1096.00	497.0	3452.00	2164.26	82.85	225.60	226.80	500.30	100.53	45.33	0.59	20.50	84.31	9.28	10.83	5.10
91-92	190.00	2141.60	6168.00	1412.50	1094.00	627.0	4298.00	2840.71	111.75	258.90	282.40	776.20	109.08	36.38	0.51	17.70	77.45	10.17	11.98	6.90
92-93	384.00	2234.40	7059.00	1555.20	1248.00	657.0	4104.00	3331.20	186.32	280.80	269.60	1142.10	96.01	23.61	0.23	17.70	80.25	9.31	11.95	11.20
93-94	354.00	2330.40	8098.00	1837.00	1407.00	950.0	4532.00	3767.20	192.16	307.80	297.80	1051.30	96.75	28.33	0.20	17.40	76.59	11.73	14.10	10.20
94-95	345.00	2577.00	9537.00	2471.00	1954.00	1095.0	4667.00	3864.00	161.01	338.80	306.80	1537.30	90.50	19.94	0.21	20.50	79.08	11.48	13.17	7.60
95-96	406.00	2761.00	11190.00	2830.00	2104.00	972.0	4958.00	4189.00	201.29	366.40	325.80	1189.60	88.92	27.39	0.18	18.80	74.35	8.69	10.49	8.70
96-97	433.00	2968.00	12770.00	3382.00	2595.00	1334.0	5071.00	4284.00	219.57	389.00	333.20	1146.80	85.66	29.05	0.18	20.30	76.73	10.45	12.17	7.80
97-98	672.00		14150.00	3679.00			4347.00	3776.00			285.60	1061.00			0.15					

Notes and Sources:

Gold Imports	Volume of gold imports up to 1990 as reported in Sarma et al 1992; for subsequent years World Gold Council estimates culled from newspapers The figures relate to calendar years, e g, 1970-71 related to 1970.
GDPR	Gross domestic product at factor cost (80-81) prices as reported in National Income Statistics.
GDPN	Gross domestic product at current market prices.
GDSN	Gross domestic savings at current prices.
HHSN	Gross household savings at current prices.
Gold Price	Average price per 10 gms in Mumbai and London as compiled.
Value of Gold	Value of imported gold in rupees at domestic price.
GDPDF	Implicit GDP deflator 1980-81 = 100
IGDP	Index of domestic gold price 1980-81 = 100
IOSP	RBI index of ordinary share price 1980-81 = 100
Gold Price rel to GDPDF	Ratio of index of gold price to implicit GDP deflator.
REL TO IOSP	Ratio of the index of gold price to ordinary share price index.
MARG	Ratio of difference between domestic and foreign price of gold relative to foreign price.
HHSN/GDPN	Household savings as per cent of gdpn.
HHS/GDS	Household savings as per cent of total domestic savings.
RI	Value of gold/(hhsn+value of gold) 'gold consumption as a per cent of total hh savings (including gold).

Figure 1



Gold Value/HHFS

The econometric estimate of the demand function using the above variables yielded poor results: When fertiliser consumption and service sector income entered separately in the estimated equation, the coefficients were found to be significantly positive. But when both figured in the equation, the coefficients were not significant. Wholesale prices had a significantly negative coefficient in all specifications. The higher the WPI, the lower the gold imports. The coefficient for gold price was significantly positive implying, contrary to expectation, that higher the gold prices, the higher the demand for gold. Returns to other financial assets were reported to have no significant relation to gold demand [Sarma et al, op cit, pp 6-8, 38].

The supply of gold, being almost entirely from smuggling, was seen as a function of the differential between its domestic and international price (reflecting the potential profit from smuggling), the premium in exchange rate prevailing in the hawala market relative to the official rate (reflecting the cost of acquiring the necessary foreign exchange through illegal channels) and the quantum of inflows in the form of FCNRs deposits and remittances (presumed to be inversely related to the supply of foreign exchange in the hawala market) (ibid:12-13,39). The multiple regression of gold imports on the above variables covering the period 1970 to 1990 confirmed the expectation that the higher the differential between domestic and foreign gold prices, and the lower the hawala premium, the larger the gold imports. The coefficient for foreign currency deposits and remittances turned out, contrary to expectations, to be positive.

The above hypotheses regarding the determinants of gold imports as well as the manner in which they were tested leave room for improvement in several respects. In the first place, consumption demand for gold (as ornaments) depends not only on agricultural prosperity and the distribution of agricultural incomes but also on non-agricultural incomes and their distribution. It is possible that the preference of agricultural and non-agricultural population for ornaments differ, but little is known about this. Nor are any reliable time series of income distribution available. Under the circumstances, at the very least, it would be better to use overall real GDP rather than indirect and questionable proxies (like fertiliser consumption) for agricultural incomes alone.

Second, insofar as gold ornaments are viewed as durable consumer goods, the price of gold relative to the general price level would influence demand for (and therefore imports of) gold. One might expect that the higher the price of gold relative to prices of other commodities and services consumed, the smaller will be the demand for gold.

Third, insofar as gold is sought and held as asset, the demand for it might be expected to depend on the volume of savings. For a given level of GDP, the higher the savings rate, the higher is likely to be the demand for gold. Neither government nor public and corporate enterprises invest in gold. Therefore, household saving would be more relevant in determining gold demand than the overall domestic saving rate.

Savings can be used to buy gold, acquire other financial asset or invest in physical assets. The demand for gold for any given level of GDP and saving rate will therefore depend significantly on the allocation between these forms of assets. It seems more likely that investment in gold will depend on the magnitude of saving in the form of financial assets than of total savings. The allocation of financial saving between gold and all other kinds of financial assets depends among other things on the relative returns of these two categories of assets.

Financial assets differ in terms of liquidity, the extent to which they provide a hedge against inflation, the risks involved and the rate of return after adjusting for taxes and changing market price of assets. Gold is almost as liquid as currency, and much easier (and less costly) to dispose of than other financial assets. If gold prices rise faster than the general price level (and the prices of financial investments), investment in gold will be seen as a superior hedge against inflation and preferred for that reason.

Many financial assets (like currency or bank deposits or provident funds) offer little hedge against inflation. Some others (like ordinary shares) do. Where there is a well functioning market (as in the case of shares and securities) and volume of financial investments available in the market is large relative to the savings, the attraction of gold would be significantly influenced by behaviour of its price relative to that of securities.

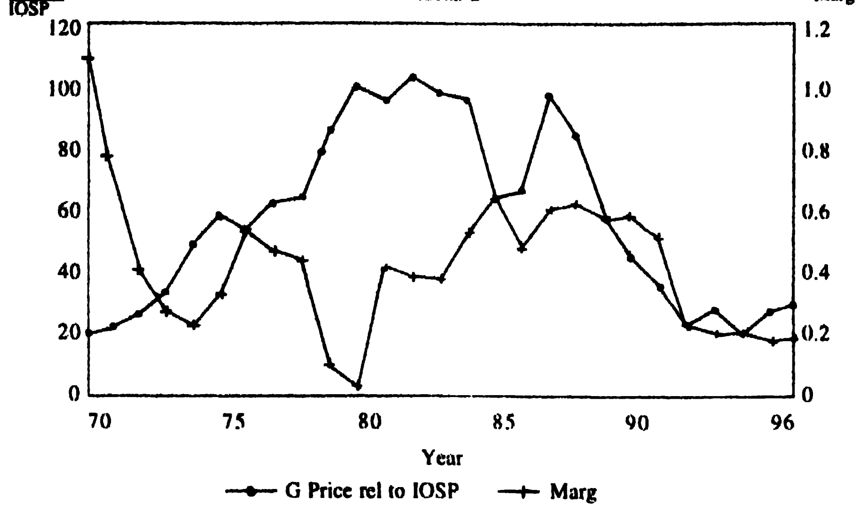
Yet another relevant consideration could be that incomes from financial assets attract tax and are more difficult to hide them than gold. Though gold does not give any current income, it is easier to conceal from tax authorities. Where the incentive to evade taxes is higher (because of high tax rate and/or lax administration), the attraction of gold is likely to be higher. The attraction would be stronger when gold prices move at least as fast as the market price of other financial instru-

Table 4: Estimated Multiple Regressions to Explain Level of Gold Imports in India

Period	Functional form	$\bar{R}^2$	Coefficient for GDPR	HHFS	IOSP	MARG
1970-90	Linear	.775			+0.167	+208.8
					(2 83)	(7.06)
	Log linear	.728			+0.368	+.961
					(2.08)	(6.50)
1970-96	Linear	.890	.075	-28.4	+0.299	1.36
			(1.75)	(2 88)	(3 28)	(3.28)
	Log linear	.783	-1.34	-0.82	+1.47	.753
			(1.03)	(1.30)	(4.07)	(5.17)

Note: Figures in brackets represent 'T' value of the coefficient.

Figure 2



ments. This aspect, however is difficult to quantify.

Financial assets are highly heterogeneous; and their composition as well as market values are variable over time. It is therefore difficult to get a weighted index of returns to financial assets as a whole. Sarma et al computed the rate of return on representative financial assets but the basis is not spelt out. Moreover this specification does not take into account the level of market prices of the asset. For these reasons the present analysis uses the market prices of ordinary shares (reflecting rate of return as well as extent of protection against inflation) as a proxy for the return to financial assets.

Fourth, Sarma et al's estimating equations include domestic gold price, the wholesale price index, and "rate of return on representative financial assets" among the explanatory variables. The impact of gold being a function of gold price relative to 'substitutes', it would seem more appropriate to specify price variables in the estimating equation as prices of gold relative to the general price level and to the ordinary share prices.

Fifth from the supply side view point, the quantum of gold imported would depend (as Sarma et al rightly argue) on the extent to which domestic price exceeds the price in the world gold market and, under a regime of fixed rates, the difference between the open market rate of exchange and the official rate. The former (which reflects the impact of changes in domestic and foreign prices as well as exchange rate changes) indicates the potential margin of smuggler's profit on imported gold. The latter representing the extra cost he has to incur to get the needed exchange in the hawala market was an important factor till 1992 when exchange rates were left more or less free to be determined by the market and gold imports were legalised. Sarma et al's estimated equation for the period 1968-1990 includes the hawala rate, but yearwise data on these rates are not given.[3] After 1992, of course, the difference between the rate on the official foreign exchange market and the rate in the 'hawala market' has been greatly narrowed, though perhaps not entirely eliminated. We have therefore had to omit this variable in the present exercise.

The logic of including accretions to FCNR deposits and remittances to capture the supply of hawala exchange is rather dubious. In any case the open market exchange rate already reflects the net effect of both demand and supply of exchange in that market. There is no need to introduce a variable to capture supply of exchange in the hawala market.

In view of these considerations, gold imports viewed from the supply side is postulated to be a function essentially of the margin between domestic and international prices. And since observed gold imports simultaneously denote the quantum absorbed by, and the quantum supplied in, the market, it is not meaningful to estimate supply and demand functions separately. Therefore we use a reduced form combining elements affecting both side of the picture. Thus

gold imports =

$$f\left(GDPR,\ HHFS,\ \frac{GPRCE}{GDPDF},\ \frac{GPRICE}{IOSP},\ MARG\right)$$

Where

- GDP – total gross domestic product at constant price
- HHFS – ratio of household financial savings to gross national product
- GPRICE – Domestic price of gold
- GDPDF – Implicit GDP deflator
- IOSP – Index of ordinary share prices
- MARG – Difference between domestic and foreign price of gold as per cent of foreign price.

IV
Estimation and Results

The above relation has been estimated in its linear and loglinear forms on the basis of data for the period 1970 to 1996. These data their sources are set out in the Table 3. A clarification regarding gold import figures is in order. The figures up to 1990 are estimates of the Consolidated Gold Field and Gold Field Mineral Services reproduced in Sarma op cit (p 29). Thereafter the estimates are taken from the World Gold Council which is said to have started functioning in 1990. These are the best informed estimates of experts on the world gold trade. However it must be noted that the basis for these estimates and the comparability of the pre-1990 estimates and those for subsequent years could not be ascertained.[4].

Since the policy regime affecting gold imports changed radically in the 1990s, the above relation has been estimated separately for the period 1970 to 1990 as well as for 1970 to 1996. The number of observations available for the post-liberalisation phase is too small to permit a satisfactory testing of difference in the underlying relations before and after

Table 5: Estimated and Actual Gold Imports, and the Contribution of Significant Explanatory Factors in Recent Decades, India

(Tonnes)

Period	Predicted Values Based on Multiple Regressions* for Different Periods													
	Actual	Predicted Total	Mean Deviation (Per Cent)	1970-71 to 1996-97 Estimated Contribution of					Predicted Total	Mean Deviation (Per Cent)	1970-71 to 1990-91 Estimated Contribution of		
				Constant	GDPR	IOSP	MARG	HHFS			Constant	IOSP	MARG
1970-80	750	703	82.4	252	860	236	689	−1274	681	67.7	−283	132	965
1981-90	1021	1095	32.8	229	1239	675	711	−1758	1090	25.3	−377	377	1090
1991-96	2112	2066	17.8	137	1126	2046	206	−1449	1232	35.7	−226	1143	315
1970-96	3883	3864	49.6	618	3225	2957	1606	−4481	3003	45.5	−886	1652	2370

* the linear form. Mean deviation = mean of deviations between predicted and actual values during each period as per cent of actuals.

liberalisation. Instead comparison of the predicted values for 1991 to 1996 based on the regressions for the two periods with actual values is used to find out whether liberalisation made a significant difference.

The regressions were initially run using all the five explanatory variables included in specification in the equation on p 475. The coefficient for the ratio of the gold price index to the index of GDP deflator turned out to be statistically non-significant in practically all cases. This variable was therefore dropped and the regressions re-estimated. The coefficients for GDPR and also HHPS were non-significant in both the regressions for the period 1970-90; but significant in the linear regression for 1970-96. Therefore regressions for 1970-90 were re-estimated with only IOSP and MARG. All four variables were retained in regressions for 1979-96. The results (summarised in Table 4) indicate the following.

The bulk of the variations in gold imports (upwards of 75 per cent and in one case as much as 89 per cent) are accounted by the explanatory variables. The regression for the entire series (1970-96) explains a higher proportion of variance in gold imports during this period than the regression for the period prior to liberalisation.

The coefficients for GDPR and HHFS are not statistically significant during 1970-90. This implies that in this period gold imports were not influenced by the level of real output or household financial savings. They were therefore dropped and regression re-estimated using only IOSP and MARG. Both coefficients are strongly positive corroborating the expectation that higher the difference between domestic and foreign gold prices, and higher the ratio of gold to share prices, the larger will be the gold imports.

Estimates for the entire period show the coefficients for all four explanatory variables to be significant. The signs of the coefficients for GDPR, IOSP and MARG are positive as expected. But the negative coefficient for HHFS implies that higher financial saving by households goes with smaller gold imports. (The results are similar if we specify household financial savings to include gold acquisitions or use the total household saving rate instead of the financial savings rate.) This is against expectation

The positive and highly significant coefficient for IOSP and MARG establish convincingly that gold imports tend to be higher when domestic gold prices rise relative to those of (a) ordinary shares and (b) international gold price. The estimates further suggest that the effect of both these variables on gold imports was considerably less during 1970-90 than the period taken as a whole.

The fact that the value (and in some cases the significance) of the coefficients estimated from the two series are markedly different suggest that the underlying relations may have undergone substantial changes between 1970-90 and 1991-96. This is illustrated by comparing the closeness of the predicted values estimated from the linear regressions for the two periods to the actuals. The results are presented in Table 5.

They show that the mean percentage deviation between predicted and actual values of gold imports during the period 1970-96 is only slightly more when predictions are based on the regressions for the entire period compared to predictions based on regression using 1970 to 1990 data. However, the picture is very different when we consider different sub-periods. The percentage differences between predicted and actual values during 1970-80 and 1981-90 are considerably less when predictions are based on the 1970-90 series compared to those based on the 1970-96 series; the opposite being the case in respect of the 1990s.

Another way of looking at it is to compare the total of predicted and actual gold imports derived from regressions for the two periods. By this criterion, the predicted imports of gold during 1970-80 and 1980-90 are roughly the same in both cases. But during 1991-96, the prediction based on 1970-90 regressions are 40 per cent below the actual; while those based on the 1970-96 regressions are close to the actual.

The table futher shows that while variations in IOSP and MARG are major factors affecting gold imports in all cases, the influence of GDP and HHFS (which was weak during 1970-90) become significant when we consider the period as a whole. Another significant point emerging from both projections is the increasing importance of IOSP, and the decline in that of MARG, in accounting for the changes in gold imports. Thus the regressions based on 1970-96 show that IOSP accounted for 33 per cent of the predicted gold imports during the 1970s, 62 per cent in 1980s and nearly 100 per cent in the 1990s. The corresponding figures for MARG being 98 per cent, 65 per cent and 10 per cent respectively.

The relative roles of these two factors need closer study. The 1970s were marked by an increase in IOSP, and a decline in the margins. Though the former would have meant higher demand for gold, imports fell probably because the black market exchange rates were too high to make gold smuggling profitable. The 1980s witnessed a reversal with IOSP showing a falling trend even as MARG rose steeply (Figure 2). The margin of profit after allowing for cost of dollar in the hawala market might have been sufficient to attract gold imports. But during the 1990s both have been falling, with gold imports legalised, the principal determinant is the IOSP whose decline seems to be the principal stimulant for a steep rise in gold imports.

V
Conclusion

In sum, it is clear that the price of gold relative to share prices and international gold prices are important determinants of gold imports. IOSP is emerging as an increasingly important factor, even as the margin between domestic and foreign of gold has dwindled largely as a result of changes in exchange rate and gold import policies. So long exchange rate and gold imports are allowed to be determined by the market, IOSP seems likely to emerge as the crucial determinant of gold imports. However the results need to be confirmed by incorporating the hawala premium in the estimating equation. The role of aggregate income is not clearly established: it seems to be unimportant in the pre-liberalisation period, but emerges as significant when we consider the period as a whole. Whether, and how far this may be due to non-comparability of estimates for the pre-1990 and post-1990 period needs to be more closely examined. The strong large and unexpectedly negative impact of household financial savings on gold imports is difficult to explain. The nature of the underlying relations, and their specification in the estimating equation, deserve deeper probing.

Notes

1 There is room for further refinement in these estimates by (a) disaggregating total consumption by end use between exports ornaments, and gold held as bars, (b) more reliable estimates of scrap availability. Given the extreme sensitivity of the matter, it is difficult to get reliable direct data on these aspects. But efforts to disaggregate, even if roughly, by end use is important for analysis.

2 'Scrap' availability depends in part on the stock of ornaments. In the case of rural population gold stocks seems likely to be affected by fluctuations in output and terms of trade. But little is known about these aspects.

3 The omission of the hawala premium from the estimated relation would give biased estimates of the coefficients. This could be connected if the relevant data used by Sarma et al were available.

4 According to Sarma et al, op cit (p 10), as against the Gold Fields Mineral Services estimate of 170 tonnes of imports during 1989-1991 the World Gold Council estimated the 1990 imports at 240 tonnes. This suggests that the assumptions and basis of the two estimates differ. To this extent the series for 1991-97 is not strictly comparable to that for earlier years.

Politics of Culturalisms in an Age of Globalisation

Discrimination, Discontent and Dialogue

Rustom Bharucha

The intercultural, the multicultural and the global inhabit different yet overlapping narratives that should not be arbitrarily conflated. There is a crisis of practice in much philosophical and social scientist thinking on multiculturalism and an insufficient engagement of philosophers with emergent cultural practices. This article attempts to intersect political philosophy and cultural practice. While multiculturalism works within the cultural logic of multinational capital, interculturalism has the potential to work against this logic

INTERCULTURALISM has many unresolved contradictions, among them the globalising tendencies (and resistances to globalisation) embedded within intercultural practices, as well as the blurred areas in which the agendas of inter- and multiculturalism converge, if only to separate. In this article, I will be risking somewhat more theoretical reflections on the political and economic inequities of north-south cultural transactions. I will also attempt to expose some of the philosophical discontents of multiculturalism in its continental manifestations, which have very different frames of reference from the relatively unformulated state of multiculturalism in India today. It is my hope that by questioning the continental hegemony on culturalism from a subcontinental perspective that a reversal of priorities can ignite new readings of intercultural theory. In a spirit of critical inquiry, one also hopes that our search for cultural collaborations within and across national boundaries will be deepened through a renewed respect for the intercontextuality that underlies any process of exchange. It is the philosophy of cultural exchange that concerns me here rather than its undeniably restrictive moorings in the practice of intercultural theatre. I have elaborated on this practice in my critique of the eurocentric and orientalist premises underlying the uses and adaptations of non-western performance traditions in Euro-American intercultural practices [Bharucha 1993].[1]

Working through a network of discriminations, discontents, and the possibilities of dialogue, I have attempted to clarify in an argumentative mode that the intercultural, the multicultural, and the global inhabit different, yet overlapping narratives that should not be arbitrarily conflated. I am concerned with both the political dynamics of these phenomena and their implications in the actual making of specific cultural practices. While I will not be focusing on Indian cultural practices *per se*, as I have in my earlier writings, I will be theorising how the politics of my location in India unavoidably shapes, how I see the larger world of cultural interactions and its increasingly global imperatives. How we situate our inherited and emergent conceptions of culture within the larger map of the world; how we can resist the increasingly sophisticated appropriations of non-western resources through new technologies and treaties; how we read first world interpretations not merely of 'our' cultures but of migrant/immigrant cultures within 'their' frameworks of citizenship; how we can activise a critical and responsible exchange of cultures against the demands of marketing forces and the insularities of pseudo-swadeshi nationalists – these are some of the underlying conceptual drives of this article.

To begin, therefore, with the image that catalysed my thinking of interculturalism as the exchange of cultures across nations. I recall a performance of one of our very many 'folk' dance-theatre traditions in India called Chhau from the eastern state of Orissa, which I was seeing for the first time in Calcutta in 1977. Chhau, however, was merely the backdrop for another 'performance' that was going on simultaneously in front of the stage. This real-life improvisation was being enacted rather unconsciously by a group of interculturalists from the first world, who were totally absorbed in clicking their cameras throughout the Chhau dance. I remember seeing the backs of these interculturalists, and a very glittering array of cameras, zoom lenses, videos, and projectors, which at that point in time signified for me, at a very visceral level, an image of western technology and power: the power of capital. Today, when I look back on this image, I realise that my first exposure to interculturalism was already refracted insofar as I was seeing at least two things at the same time: the Chhau dance on a makeshift stage, cut by the bodies and technology of the interculturalists.

Among the many questions provoked by this image, which has become a visual trope in my intercultural imaginary, I remember asking myself: Who are these people? What are they seeing? And why are they so oblivious to the hundreds and thousands of people sitting behind them? These questions suggest a context of exclusion on my part, implying a relatively uninterrogated sense of cultural belongingness and territoriality that is being assumed, even as it is in the process of being disturbed.

In a more reflexive mode, therefore, I would turn the critical gaze on to myself: Was I overreacting to what I saw? Were we being made into voyeurs of our own culture as we saw Chhau through the screen of alien bodies? To what extent can Chhau be regarded exclusively as 'our' culture? What goes into the construction of this possessive adjective 'our' – our culture, our language, our nation? After all, one knows that the regional hegemony of 'Indian culture' ultimately succeeds in subsuming indigenous, folk, and tribal cultures within its ostensibly homogenised linguistic and cultural frames, even though the practitioners of these cultures can be marginalised and demeaned by upper-caste patriarchies in everyday life.

At a more global level, I would interrogate a different set of details: the photographs, images, and recordings that were taken during the performance. Where have they been circulated over the years? To whom have they been circulated? And with whose permission? Does access to technology ensure the rights of ownership, representation, and distribution? It is with these questions that I would like to focus now on some contentious issues relating to 'intellectual property rights' which have yet to be adequately addressed within the emergent debates on the globalisation of cultures in our times.

I
The Rights of Culture

Along with the growing policing of human rights by which first world nations legitimise their control of third world economies on humanitarian grounds, there is now, increasingly, a bombardment of threats around the alleged violation of intellectual property rights. Third world countries like India, for instance, are often accused of abusing these rights by multinational corporations and pharmaceutical companies, the consciences of the first world. But is it possible to reverse the charges, as indeed environmentalists [Shiva and Holla-Bhar 1996] have succeeded in doing, by exposing the hypocrisies of those industries that have presumed to patent indigenous plants like 'neem', which is used by millions of Indians as a toothbrush and for medicinal purposes? How do we counter similar instances of 'cultural piracy' that have yet to be acknowledged?

It is heartening in this regard to acknowledge the growing sensitivity among many western artists, theorists, lawyers, environmentalists, and anthropologists to the global transactions and appropriations of non-western cultural resources and practices. Increasingly, there is a critical consensus that intellectual property laws are 'selectively blind to the scientific and artistic contributions of many of the world's cultures'; ironically, when these cultures are recognised, they are denied the rights of authorship [quoted in Boyle 1996:193]. There is also an increasing cognisance of the imbalance between the 'traditional knowledge, folklore, genetic material and native medical knowledge' that are flowing *out* of third world countries 'unprotected by intellectual property', in contrast to the surfeit of works from developed countries that are flowing *in*, 'well protected by international intellectual property agreements, backed by the threat of trade sanctions' (ibid).

It could be argued that this increased vigilance around intellectual property violations is an exaggerated form of political correctness that plays more on the fears of cultural piracy rather than on empirical evidence. Critics of intellectual property could also be accused of speaking falsely on behalf of oppressed communities, who may not be aware of their exploitation and who could even be philosophically opposed to the idea of patenting their traditional wisdoms. These arguments, I would emphasise, are made in bad faith; they underestimate both the casual complicities of a wide range of professionals in acts of cultural piracy, as well as the increased alertness on the part of indigenous communities to the economic value of their traditional skills and resources.

Besides, in an age of globalisation, when the future in a sense is already in the process of being patented, a pre-emptive attitude to the exploitative potential of intellectual property cannot be sufficiently emphasised. Within the very real risks posed by the tradable intellectual properties (TRIPs) that have now been sanctioned within the General Agreement on Tariffs and Trade (GATT), it is possible to speculate with some conviction that 'transnational cultural corporations may obtain all rights to exploit for profit any piece of music, any image, any text they believe to have commercial potential. The consequence will be that those corporations may become the exclusive owners of substantial pieces of artistic cultures wherever in the world and thereby influence, perhaps even determine, the direction in which those cultures may develop' [Smiers 1997:3].

While it could be argued that these fears apply more readily to highly marketable cultural products, artefacts, and skills relating to the mass media, graphics design, and the fine arts, it would be disingenuous to exempt less commercially viable activities like the performing arts from the control of the global market. Even if non-western theatrical productions and performances as such are not likely to interest the transnational corporate sector, the raw materials, techniques, and resources from non-western countries can easily be transported, channelised, and converted into 'original' products (performance pieces, video demonstrations, research programmes), which can then become eminently marketable through the funding available to festivals, universities, and a select body of avant-garde work.

The question that needs to be addressed is unavoidably polemical: What do the home countries and communities, from where these resources emanated, receive for their contribution to the creative process? Are they even acknowledged? The difficulties posed by these questions are invariably elided within the hype of global cultural enterprise, which for all its transcendence of specific national and cultural boundaries, remains doggedly loyal to the most conservative assumptions of what constitutes a work of art in the first place. If this 'art' belongs to anyone, it is indisputably the 'property' of an inspired 'author'. ('Genius' is the word that is still used to describe the most celebrated of global cultural impresarios.)

In this regard, the cult of the author has rightly been exposed by critics of intellectual property like James Boyle (1996), who traces the tenacious hold of an 18th century romantic notion of authorship on the most blatant distortions of environmental loot. 'The romantic author', as Boyle points out, 'was defined not by the mastery of a prior set of rules, but instead by the transformation of genre, the revision of form' (1996:54). Ultimately, it is this stamp of originality and invention that is upheld in claims around intellectual property rights, at the expense of taking into account collaborative and communitarian modes of production, inherited legacies of oral and folk wisdom. In this context, the cultural resources of indigenous peoples and tribal communities are particularly vulnerable to misuse because they are not owned by any defined party; they belong to the entire community. Unfortunately, 'individual' ownership is more accountable at legal levels than 'community' belonging and sharing, just as 'innovation' is more assessable than 'tradition', 'transformation' more precise in the specificity of its altered form than the vagaries of 'evolution' [Frow 1996:98].

Within the framework of these biases, the double standards of the upholders of intellectual property rights become only too evident, as the border lines between 'ideas' and 'expressions', 'inventions' and 'discoveries' are proving to be more blurred than globalists are prepared to acknowledge [ibid:93]. Admittedly, these blurrings are harder to specify within cultural practices than in the more scientific terrain of gene technology, for instance, where 'seed as seed' and 'seed as grain' are discriminated for commercial purposes, the 'use-value' of the seed being supplanted by the 'exchange-value' of the grain [Kloppenburg 1988:3]. In contrast, artistic endeavours are not so easily discriminated; if a contemporary visual artist, for instance, incorporates the skills of an indigenous craftsman into his/her art work, there is no obligation as such to acknowledge this contribution.[2] The skill of the indigenous craftsman is, at best, a facilitating agency for which payment is due. Recognition, however, goes to the artist who has the 'idea' in the first place to use the skill of the craftsman in order to realise a particular 'expression.' Likewise, there are many number of complexities in determining the authorship of collaborative and interdisciplinary works of art like installations, which can be further complicated through new tech-

niques of quotation, *bricolage*, and remixing.[3]

One could argue that these new modes of authorship have evolved in response to the availability of new technologies in the metropolis, but they should not be valorised at the expense of acknowledging communitarian systems of knowledge in which authorship is often anonymous. The ultimate perversity in exploiting this anonymity lies in the ruthless appropriation of the principle of 'universality', whereby the 'common heritage of mankind' which is embodied and celebrated in so many holistic disciplines, rituals, and ceremonies, can with a few strategic adjustments, become the 'properties' of particular individuals and agencies. How, in such demeaning and exploitative circumstances, can the 'cultural commons' of indigenous cultures be democratically recognised and shared in the 'public domain' without being ripped off by the speculators of the culture industry?

There is a loaded political context in such questions relating to different cultural practices and art forms, which has yet to be adequately extrapolated from the more rigorous readings of bioimperialism and biodiversity in environmental agendas. In contrast, the concern for the ecology of cultures would seem to be, at this point in time, more rhetorical than real. Even in the most scrupulously liberal of cultural exchanges, ostensibly tuned to the demands of political correctness, there can be any number of blind spots and slippages in the ethics of cross-cultural representation and borrowing. When does the 'fair use' of resources from other cultures, even in the least commercial of endeavours like academic research in the non-western performing arts, for instance, become an alibi for the production of a new expertise at the expense of acknowledging local knowledge? What are the perks of this expertise that remain unaccounted for through the promotion of individual careers and the empowerment of new categories of cultural representation? If we have not begun to answer these questions, it is because they are in the process of being articulated from the oblivion of their assumed privilege: the privilege of silence that academics have within the apolitical aura of their seemingly unadulterated search for knowledge.

II
The Intercultural and the Global

Shifting the discussion away from the globalisation of intellectual property rights, one needs to discriminate between those intercultural endeavours that are in the process of being globalised (if they are not already globalised), and those which work against the grain of dominant global narratives. This is not an easy discrimination to sustain, but let me attempt some clarifications on the subject. Not every cultural exchange, I would acknowledge, needs to subscribe to the global agenda determined by the market economy, the satellite media culture, the McDonaldisation of commodities, among other phenomena of global capitalism. There are artists in the world who seek each other out at personal and creative levels, through the harshest of economic circumstances, with no particular hope of recognition even within the framework of their respective national cultures. The work of these relatively unknown artists is not likely to be commodified by the agencies of corporate culture. On the other hand, there can be established artists whose narratives can work against the demands of the market that they are in a position to negotiate. Still others can opt out of the market altogether, pursuing a different set of cultural interventions that bring together a wide spectrum of activists, drop-outs and dissidents, representing the non-conformist, if not subversive, elements of any society.

Interculturalism, I would affirm, embraces all these possibilities of dissent, and therefore, it is ironic that its most ardent advocates should so naively equate the 'intercultural' and the 'global' – terms which are often used synonymously, and even harmoniously, particularly in first world cultural contexts, where globalisation is not just taken for granted but actively promoted. In India, however, there is a tremendous resistance at ground levels to the homogenising, commoditising, and anti-democratic tendencies of globalisation, as exemplified in people's movements directed against mega enterprises like the Sardar Sarovar Dam Project in Narmada or Cogentrix in Dakshina Kannada. The resistance to globalisation has also extended more arbitrarily to its cultural ancillaries, which would include corporate media spectacles like the Miss World Beauty Pageant in Bangalore, which was attacked by sections of feminists, on the grounds that the commodification of beauty is inseparable from the consumerist propaganda of the global market. In this opposition, they received the unprecedented support of the farmer's movement as well, which had earlier opposed the introduction of Kentucky Fried Chicken into the Indian market. It is worth keeping in mind that while KFC is a thoroughly domesticated global icon in developed societies, so much so that it would be regarded as 'indigenous', if not disparagingly associated with the kind of junk food that the poorer sections of society eat, this very KFC becomes a status symbol in countries like India. In other words, the cultural signs of this commodity are totally different in third world economies, thereby challenging one of the most illusory norms of globalisation that it is capable of levelling differences across borders.

Without exposing the economic hegemony of globalisation, it becomes disingenuous to accept its 'emancipatory results' in the cultural sphere. As posited tentatively by Geeta Kapur, these 'results' can be related to the 'freedom' from 'the national/collective/communitarian straitjacket', along with the 'paternalistic patronage system of the state' and the rigidities of 'anti-imperialism' [Kapur 1997:30]. There is no reason to my mind why artists should be inhibited from exploring 'other discourses of opposition' relating to gender and minority issues, which Kapur associates with yet another liberatory aspect of global culture. I would contend that the right to criticise the official agendas of the state is eminently possible within the seeming constraints of a national imagery, along with new articulations of cultural representation relating to women dalits, tribal communities, and other minorities. The 'emancipatory results' by which Kapur attempts to inflect her critique of globalisation are illusions of freedom; they are the phantoms of the market which reduce possibilities of dissent to a pastiche of their co-optation.

I am more in agreement with Kapu when she claims the privilege as a residen in the third world to resist globalisatio within the framework of a contestec national culture – a privilege that may no be available, as she correctly points out to our colleagues from more globalisec economies. This privilege, I believe, need: to be extended to the practice of inter culturalism, in order to subvert its affili ations to global capitalism from within it more established ranks. In other words, a opposition to globalisation cannot b restricted to the national boundaries o third world contexts, even if such a opposition would appear to make mor sense in such contexts than in first worl locations, where globalisation has bee normalised both in the financial and cul tural sectors. To oppose globalisation i one political context, and to conform t its agenda in another, is the surest way c subscribing to cultural schizophrenia.

The interculturalist, I would like t believe, is not a schizoid opportunist wh shifts his/her position out of convenienc

Nor is the interculturalist a free-floating signifier oscillating in a seemingly permanent state of liminality and in-betweenness. The interculturalist is more of an infiltrator in specific domains of cultural capital, which could exist in first and third world contexts as well. The ubiquity of global capitalism compels the interculturalist to negotiate different systems of power in order to sustain the exchange of cultures at democratic and equitable levels.

III
The Intercultural and the National

To shift the timeframe of this essay back to 1977, when I first saw the Chhau performance that provoked me into thinking about interculturalism, I should acknowledge that I was not thinking about globalisation at that time. The new economic policies of the Indian government had not yet been articulated. Nor could one have predicted the imminence of the satellite media invasion, for the simple reason that television had yet to enter our homes. In 1977, I found myself implicated within an increasingly uncomfortable awareness of what Frantz Fanon has described so memorably as 'the pitfalls of national consciousness' Within the transposition of these 'pitfalls' in the Indian context, where the process of decolonisation continues to elude us at so many levels, one was a witness to the post-Emergency euphoria of a nation attempting to re-establish its authenticity, through a retrieval of a pre-Nehruvian past.

At an idealised political level (which, unfortunately, failed to materialise in a sustained secular political alternative to the Congress Party), there was an advocacy of decentralisation through an upsurge of alternative activist initiatives, at times inspired by the panchayati raj of people's democracy. In the more institutionalised sectors of cultural practice as well, there was a more vacuous retrieval of the past through an 'invention of tradition', whereby a 'back to the roots' anti-modern/anti-realist/anti-western policy was crudely, yet tenaciously propagated by the state and its accomplices [Bharucha 1993:205-08]. These proponents of an authentic 'Indianness' were neither nativist visionaries nor ideologues for the most part, but cultural bureaucrats who exemplified the 'intellectual laziness' that marks the defunct state of the national bourgeoisie: 'Not engaged in production, nor building, nor labour...the innermost vocation of [the national bourgeoisie] seems to be to keep in the running and to be part of the racket' [Fanon 1967:120]. It was in this nationalist framework of 'being part of the racket' that my first exposure to interculturalism needs to be contextualised.

I remember thinking to myself at that time: if the interculturalists at the Chhau performance were there, it is because they had been invited to be there. They were not intruders, but the honoured guests of the local impresarios of the organisation and state cultural officials, who sought some kind of foreign endorsement for their display of indigenous culture at home. Such endorsements in the intercultural scenario are invariably made possible through a series of complicities not just at economic, political, and professional levels, but more acutely, through the ideological bases and biases of different cultural institutions and modes of expertise across systems of power that would like to believe in the autonomy of their interactions. This autonomy is, perhaps, most emphatically asserted in the seeming transcendence of intercultural practice over all national boundaries and considerations. Indeed, if there is one premise that would bring together the widest spectrum of Euro-American interculturalists, it would be a rejection, if not denial of their own national identities and affiliations.

In the world of intercultural theatre, for instance, there is much evidence to support the resistance to nationalism in the 'transcultural' search for a universal theatre language across cultures in the work of Peter Brook and his 'ultracultural' quest for the origins of theatre in the spectacle of *Orghast*.[4] Different variations of this anti-national resistance can also be traced in the paratheatrical experiments of Jerzy Grotowski and his Theatre of the Sources, as well as the theatre anthropology of Eugenio Barba, which privileges the 'pre-expressivity' of cultures that underlies their acculturation in specific contexts. These seeming discriminations between the 'transcultural', the 'ultracultural', the 'pre cultural' [Pavis 1996:6-7] share a common ground in their distance from, if not resistance to, the realities of history, political struggle, and above all, nationalism. There is no point in reiterating here my intense discomfort with the apolitical/asocial and universalist premises underlying these established examples of Euro-American intercultural theatre practice [Bharucha 1993:13-87]. Rather, what concerns me is where I stand in relation to the 'national', a category which was not theorised sufficiently in my earlier critiques of interculturalism.

As suggested somewhat euphorically in liberal manifestos of interculturalism [Schechner 1982], 'The world...is in the process of moving from its nationalistic phase to its cultural phase, and it is preferable to distinguish cultural areas rather than nations' [quoted in Pavis 1996:5]. Not only is this statement a profound wish-fulfilment that is not actually substantiated by the events in the *realpolitik*, where we have witnessed since 1989 an upsurge of nationalism, secessionism, insurgency, and fascism in almost all parts of the world, it is debatable whether 'nationalistic' and 'cultural' phases can be separated quite so easily in any discussion of culture, particularly in post-colonial contexts. One obvious paradox that liberal supporters of interculturalism fail to confront is that in countering one nationalism, other nationalisms are invariably in the making. But perhaps, a more politically engaged reading of culture would indicate, as Frantz Fanon has emphasised, that 'national consciousness' could be 'the most elaborate form of culture' itself [Fanon 1967:199].

There is an obvious provocation in this statement that challenges not just the anathema to nationalism represented by interculturalists, but by a wider range of post-colonial theorists, who have contributed to the 'disparaging of nationalist discourses of resistance' [Parry 1987], which have been marked as 'coercive, totalising, elitist, authoritarian, essentialist and reactionary' [Lazarus 1993:70-71]. The nationalist underpinnings of my own critique of interculturalism have not spared me from being described as 'demagogic' and even 'ridiculous' [Pavis 1992:179]. Turning to Fanon for ideological support, therefore, one is aware that though the historical moment of the Algerian struggle for independence cannot be replicated in the Indian context, the contradictions of that moment and the foresight with which Fanon was able to anticipate the degeneration of nationalism in post-independence societies, are among the most chastening reminders in my cultural context of how history can repeat itself in disturbingly familiar ways. I turn, therefore, to Fanon not for answers, but to find a ground in which the 'national' can be re-positioned against nativist celebrations of community, communal affirmations of a monolithic nationalism, and the glib advocacy of post-nationalism. This re-positioning of the 'national' cannot be separated in the Indian context from the emergent cultures of struggle in search of a more participatory people's democracy.

Fanon's provocation lies precisely in not clarifying the enigmas that he sets forth in his militant, yet contradictory –

I will not say equivocal – statements. For example:

> National consciousness, which is not nationalism, is the only thing that will give us an international dimension...It is at the heart of national consciousness that international consciousness lives and grows. And this twofold emerging is ultimately the source of all culture [Fanon 1967:199].

Neil Lazarus probably comes as close as we are likely to in identifying 'national consciousness' as 'a liberationist, anti-imperialist, nationalist internationalism' [Lazarus 1993:72], which has been named 'nationalitarian' by Anwar Abdel-Malek in order to discriminate its agenda from the more negative associations of 'nationalism.' Fanon himself emphasises more than once that nationalism – the 'magnificent song' which fuels the struggle for independence – has a great capacity to degenerate into 'ultra-nationalism', 'chauvinism', and eventually 'racism' [ibid:125].

This degeneration is part of a narrative that most post-colonial/intercultural thinkers would endorse because it plays into the demonisation of what is assumed to be an intrinsically tainted phenomenon. Thus, we find in Fanon's critique of nationalism, the familiar charges of the tyranny associated with blaming other communities for the predicament of the post-independence nation. This process of othering minorities, which would be described as 'communalism' in the Indian political context today, invariably thrives on the resuscitation of 'old tribal attitudes', 'spiritual [inter-religious] rivalries', 'drivelling paternalism', and 'regionalism': 'African unity takes off the mask, and crumbles into regionalism inside the hollow shell of nationality itself' [ibid:128]. Fuelling this degeneration of nationalism into a 'racism of contempt' is the steady decline of 'the party' (ostensibly the party that provided the leadership in the independence struggle, for example, the Congress Party in India). The bankruptcy of such parties is not spared by Fanon in the choicest of epithets: 'trade union of individual interests', 'skeleton of its former self', 'a means of private advancement', 'accomplice of the merchant bourgeoisie', 'a screen between the masses and the leaders' [ibid:136-37].

Clearly, there is no ambivalence in this critique of the party, which represents the most hollow manifestation of nationalism itself. But – Fanon does not stop here. In countering a degenerate nationalism, he does not posit any utopian post-nationalism, nor does he lapse into pre-modern communitarianism, or into a nativist valorisation of the authentic past. 'A national culture', as he emphasises, 'is not a folklore, nor an abstract populism that believes it can discover the people's true nature' [ibid:188]. On the contrary, Fanon returns to an intensification of national struggle at ground levels with somewhat different priorities: "If you really wish your country to avoid regression, or at best halts and uncertainties, a rapid step must be taken from national consciousness to political and social consciousness...[I]f nationalism is not enriched and deepened by a very rapid transformation into a consciousness of social and political needs, in other word into humanism, it leads up a blind alley" [ibid:163-65].[5]

Not only is it necessary to "break down the equivalences between 'national' and 'nationalism' ", as Stuart Hall has suggested in his own inflected reading of Fanon [Hall 1996:42], one also needs to work against moribund notions of an 'empty international humanism' (ibid) and seek out a new critical internationalism, which would include a profound respect for intercultural exchange through the mediation of different histories in post-colonial struggles. There is a lot of work that lies ahead in actualising these discriminations within cultural practices, but perhaps, one can begin by addressing the nullity of those prejudices that equate the 'national' with the regimentation of nation states, the policing of borders, and the construction of 'good citizens'. This demonisation of the 'national' can only homogenise nationalisms, apart from undermining the very real struggles and sacrifices that have gone into the activisation of social and political movements in different parts of the world.

On a more personal note, I would suggest to the neo-liberal, anti-nationalist seekers of interculturalism from first world cultural contexts that they should first begin to account for their own implicit nationalisms, and their very real privileges which are so often taken for granted in their ownership of passports from first world nations – the ultimate sign of global privilege – which enables them to travel to almost any part of the world without difficulty. This is not a privilege that many of us from third world countries can assume. As I have often emphasised in my critical interventions, in international fora, our interculturalism begins with the trauma of having to obtain a visa on our much maligned, if not degraded passports, in order to travel not merely to 'the west', but to almost any country in Asia or Africa. I confront the injustices of competing and disparate nationalisms every time I am invited to an intercultural forum. For all my 'expertise' as a seasoned traveller, I am marked along with my fellow-citizens as a potential illegal immigrant, if not a terrorist, so much so that my negotiation to cross the border in face-to-face encounters with visa officers has now become a performative act in its own right. It is not surprising, therefore, that my closest compatriots in intercultural performance should be border artists, who unlike their liberal counterparts who assume the crossing of borders as their birthright, never to take the border for granted.[6]

IV
The Intercultural and the Multicultural

Intercultural decision-makers would like to believe that they function with a certain map of the world that counters the official maps and borders. But one finds that even on these seemingly altruistic, humanitarian, border-free/border-less maps, the routes of cultural exchange have already been charted, the zones of interaction have already been fixed. And some zones may not exist at all, which means that one could be reduced to an absence. If one wanted to shift these zones – break the dichotomies of the north and south, east and west – or if one desired to re-route the map – bring the cultures of the south closer together – the possibilities of doing so are extremely remote in the absence of alternative routes, structures of representation, and infrastructures of support. Indeed, the 'crossroads' of cultural exchange are often substituted by the 'inroads' of institutionalised interculturalism, whereby the south-south cultural exchange is unavoidably mediated by the north.[7] While it could be argued that these mediations are not necessarily undemocratic, I would acknowledge that they are extremely constraining because they work against the basic premises of voluntarism on which interculturalism is based as a theory and practice.

Voluntarism as a critical principle is unavoidably linked to the larger framework of liberalism that assumes a freedom of choice, which may not, in reality, exist for all its assumed beneficiaries. At an ideational level, however, it is a useful term insofar as it enables us to discriminate interculturalism from the larger, more emphatic, if not overdetermined narratives of multiculturalism, which have been hegemonised by the state. While the governments of western democracies like Britain, Canada, and Australia have for-

mulated official policies of multiculturalism, none of them can presume to have an intercultural policy: the 'inter' will invariably lie outside of the direct control of the state. Unlike the 'multi', which is concerned with the cohabitation of different cultural and ethnic groups negotiating an ostensibly common framework of citizenship, intercultural practitioners have a greater flexibility in exploring – and subverting – different modes of citizenship across different national contexts, through subjectivities that are less mediated by the agencies of the state.

Unlike interculturalism, which has yet to be cogently theorised – it is at once too scattered in its multiple locations and modes of expression to be subsumed under any one theoretical framework – multiculturalism has been over-theorised in western contexts through a surfeit of conflicting narratives that suffer from an overkill of ideology. This is in distinct contrast to the relatively untheorised state of multiculturalism in India, which continues to draw implicitly on the diversities of 'Indian culture' sanctified by the statist mantra of 'unity in diversity'. While there may seem to be some advantage in not having an official multicultural policy – a cynical view could be that it is this very absence of policy that enables us to speak about so many cultural diversities in the first place – one cannot ignore the deeply entrenched injustices and differences underlying the 'politics of diversity' upheld by the Indian state, which need to be linked to specific histories of social disparity and religious patriarchy. Only by disrupting the primordialities of unchanging diversities, which merely legitimise fixed notions of 'community', as Kumkum Sangari has argued so forcefully, can we develop a more democratic cognisance of and respect for cultural differences.

It could also be argued that a 'defence of multiculturalist politics' [Vanaik 1998] in the Indian context may not be adequate to confront the advocacy of 'one nation, one language, one culture' by the forces of hindutva, whose onslaught has extended not merely to debates around the university curriculum and affirmative action (as in western contexts of multiculturalism), but to the systematic undermining of the secular and democratic foundations of the Indian state. Nothing less than a 'holistic project of opposition' [ibid:642] is needed to confront the fiercely monocultural and racist premises of hindutva. I would regard the mobilisation of multiculturalism in India across caste and communitarian differences as one element in the shaping of this 'holistic' project. Certainly, our multiculturalism in India will have to develop on significantly different lines from the emergent (and perhaps, flawed) models in western societies, but there are lessons to be learned from the very differences and failures of multicultural policies and cultural practices in the west. It is in this context of 'learning through difference' that the commentary that follows on different readings of multiculturalism in western democratic societies can be most meaningfully translated (or rejected) in the Indian context.

The most significant point of departure that would need to be acknowledged is that 'multiculturalism' might never have entered the western vocabulary had it not been for the realities of immigration. In Britain, for instance, the politics of multiculturalism is inextricably linked to the influx of labour from the ex-colonial countries in the late 1950s; its process of making immigrants into compliant citizens has been engineered by the most established agencies of the state and civil society monitoring the systems of law, education, employment, language, and social welfare. Significantly, it was the propagation of a liberal 'integrationist' mode of multiculturalism in Britain from the mid-1970s onwards (in opposition to the 'nationalist' assimilationist policies of immigration upheld earlier) that precipitated a crisis that still continues.

Many activist writers on the Left in Britain have reflected forcefully on how the state propagation of multiculturalism has resulted in a breakdown of a consensus built around a 'black' political identity and class solidarity that had unified a wide spectrum of Asian and Afro-Carribean workers against the discriminatory practices of the state. Within the rhetoric of respecting cultural differences, the liberalisation of multicultural policies has merely succeeded in 'depoliticising race and substituting (a narrowly defined) 'culture' for anti-racist consciousness' [Mohanty 1998:17]. Furthermore, at a grass roots level of community organisation, 'the government funding of self-help groups undermined the self-reliance, the self-created social and economic base of these groups; they were no longer responsive to or responsible for the people they served – and service itself became a profitable concern' [Sivanandan 1985:6]. In the name of freeing communities from the 'objectivist delusion' and 'essentialist nostalgia' of race, to use Satya Mohanty's ironic categories, multiculturalism divided communities – against each other, within themselves. It became another mode of promoting sectarianism, thereby perpetuating the policy of 'divide and rule' in former colonies, but camouflaged within the multicultural aura of respecting a plurality of cultural identities and ethnicities.

Satya Mohanty has argued that this reading of multiculturalism has echoes in other political contexts as well – for instance, in the US, where as Michael Omi and Howard Winant (1986) have pointed out, 'an objective analysis of racist domination was obscured by an intellectual [postmodern/post-colonial] agenda that emphasised the cultural multiplicity of 'ethnic' identities' [quoted in Mohanty 1998:18]. Whether or not one subscribes to the socialist register and reassertion of 'race' as a political category in these readings of multiculturalism, one cannot deny that the multicultural narrative is beginning to implode from within the unresolved tensions of its inner contradictions, even within neo-liberal endorsements of its framework.

V
Perspectives on Multiculturalism

Having acknowledged these discontents, however, one is also obliged to defend more historically inflected readings of multiculturalism against the recent backlash of conservative opinion that would like to reduce its agenda to a caricature of affirmative action for essentially undeserving minorities. It is out of this compulsion that I would like to focus now on a spectrum of radical, liberal, and communitarian perspectives on Euro-American multiculturalism. This is not intended to be a comprehensive or even a selective overview, but rather a series of schematic positions (and provocations) on multiculturalism that I would like to interrogate both at the levels of political theory and cultural practice. At a methodological level, I will be intersecting different languages that are rarely brought into collision because they incorporate radically different grammars, vocabularies, and epistemologies of thought. In this collision of languages, there is the risk of a certain awkwardness, but perhaps this is unavoidable in any attempt to heighten the intercontextuality of a layered and polyphonic phenomenon like multiculturalism. In addition, I will be interrupting the political agenda of multiculturalism with some emergent lessons drawn from intercultural practices. Having prepared the reader, I hope sufficiently, for my 'theoretical incorrectness', I invite you to engage critically in the disjunctions of this discourse.

I begin with Slavoj Zizek's incomparably subversive reading of multiculturalism as much for its capacity to exhume the spectres of earlier liberationist modes of thinking, as for its lethal demolition of contemporary myths of coexistence:

> [M]ulticulturalism is a disavowed, inverted, self-referential form of racism, a 'racism with a distance' – it respects the Other's identity, conceiving the Other as a self-enclosed 'authentic' community towards which he, the multiculturalist, maintains a distance rendered possible by his privileged universal position...[T]he multiculturalist respect for the Other's specificity is the very form of asserting one's own superiority [Zizek 1997:44].

In this exposure of multiculturalism, there are some immediate provocations of the universalist assumptions underlying intercultural practices, which tend to be critiqued (if at all) within the context of ethnocentricity rather than racism. Unlike the multiculturalist who, in Zizek's formulation, 'distances' himself from the Other through a privileged universality, the interculturalist, at least in his/her most idealised manifestations, erases all distinctions through an assumption of a shared universality. In the empty space of the intercultural meeting ground, which assumes the 'point zero' of an authentic 'first contact' between 'essential human beings', there is a total erasure of the participants' ethnicities in favour of their universal human identities, creativities, and potentialities. The interculturalist is above ethnicity; s/he is always already human. And therefore, s/he can afford to propose a universality for all, cast in an invariably white, patriarchal, heterosexist image.

This naive acceptance of an innately human 'universality' in intercultural practices is quite different in its implications from the kind of 'moral' and 'radical' universalism that is affirmed by cultural theorists like Satya Mohanty, whose reading of 'universality' is opposed in its own right to Zizek's more shifty and strategic use of the term. In Mohanty's anti-foundationalist, 'realist' defence of multiculturalism, a 'minimal rationality' is posited as the base for any inter/multicultural communication: "No matter how different cultural Others are, they are never so different that they are... incapable of acting purposefully, or evaluating their actions in the light of their ideas and previous experiences, and of being 'rational' in this minimal way" [Mohanty 1998:198]. It is this inherent capacity for critical and collective reflexivity that defines 'human agency', thereby providing the 'universal' foundations for all kinds of progressive movements in the cultural and political sectors. While Mohanty's 'objectivist' rebuttal of the 'relativist' readings of cultural pluralism works refreshingly against the grain of post-modern theoretical fashion, it also risks seeming reductive, if not formulaic, in its axiomatic endorsement of an unproblematised 'rationality'.

In contrast, Zizek's endorsement of 'the true Universality to come' is almost excessively inflected in its opposition to the 'neutral universality' of existing systems and the 'anti-universality' of Rightist groups steeped in their own particularistic agendas [Zizek 1997:50]. The Left, as Zizek presents the problem of universality, has no other option but to confront the 'paradox' of its allegiance to an ideal of 'universal emancipation', along with its acceptance of 'the antagonistic character of society' (ibid). In other words, it is only by accepting 'the radically antagonistic – that is, *political* – character of social life' that one can be 'effectively ***universal***' (ibid, emphases in original). This is quite different in effect from assuming, as Mohanty does, that the 'universal' (of 'minimal rationality') already exists, thereby precipitating the possibilities of radical action.

Working on the premise that 'antagonism is inherent to universality itself', Zizek splits the unitary concept of universality into 'the 'false' concrete universality' of existing systems of knowledge, and 'the impossible/real demand of 'abstract' universality' (ibid, emphases in original). It would seem that the 'true Universality to come' cannot be posited within what already exists in the name of the universal, by which systems like multiculturalism legitimise their racist practice. However – and this is the point of a closer rapprochement between Zizek's and Mohanty's seemingly incommensurable positions – the 'assertion of the universality of antagonism' (which coexists with the 'antagonism inherent to universality itself') does not foreclose the possibilities of a dialogue with one's antagonists. Without spelling out how this is actually implemented, Zizek believes that culture can continue to serve as an 'efficient answer to the gun', and that its struggle is embodied in and through *reflective knowledge* [ibid:51, emphasis in original).

At this very fundamental level of the human capacity to discriminate and reflect on its choices it would seem that there is a meeting, though not necessarily a fusion, between two different readings of 'universality' as offered by Mohanty and Zizek. But – the routes by which these cultural strangers on the Left arrive at the critical inflection of 'reflective knowledge' in 'our' world, are fundamentally different. While Mohanty would seem to retrieve a notion of the 'universal' from earlier political struggles, which he then attempts to catalyse in the creation of 'the shared epistemic and social space' of multicultural discourse and practice, Zizek introjects the 'universality to come' into his subversion of the existing multicultural frames that have been hegemonised by the state and the global order. While multiculturalism for Mohanty continues to offer the possibilities of a 'democratic project' within a moral and realist framework of values, Zizek is more sceptical of 'morality' in his 'ethical suspension of the law', by which he consciously thrusts the narrative of multiculturalism into 'the cultural logic of multinational capitalism', which is coterminous with the upsurge of ethnic cleansings and other forms of fascism in our world. If Mohanty is still capable of seeing 'the world' as the common site of inter/multicultural endeavours, Zizek's vision is far less unmediated, as he chooses to see the world not through a glass darkly, but through a consciously distorted lens, not unlike the upturned eyelids of a contemporary Butoh dancer surveying the relics of a post-Hiroshima present.

Through the interplay of these collisive readings on universality, it becomes more viable to accept that while the human desire for creative interaction can serve as the minimal 'universal' base for intercultural encounters, this desire is fraught with tensions, compulsions, hidden agendas, and funding realities, as I have indicated earlier in the context of the existing inequities of intercultural exchange. Let us accept that there is no 'pure' universal base for intercultural practice in any art form, and that the 'universal minimum' that can be said to initiate any intercultural exchange is extremely fragile, based more on intuition, desire, and good faith than on any real cognisance of the other. It is only through the process of exchanging differences, not only through specific cultural languages but the contexts supporting them, that another, more reflexive realisation of 'universality' can be produced and shared through creative consensus and dialogue. There is no reason to believe, however, that this evolved 'universality' will remain intact; indeed, in the field of theatre, for instance, the phenomenology of per-

formance (and its inherent condition of 'dying' within the concretisation of its practice), would resist the illusion of any permanent state of universality, which is always in the process of being made, unmade, and remade. Ironically, the artists who flaunt their 'universal' credentials are invariably the most insular practitioners of their art.

Through Zizek, it also becomes possible to unread the somewhat naive assumption that the interculturalist's universality is a kind of mask that disguises his/her 'real' ethnocentricity. Perhaps, it is this ethnocentricity that is the 'phantasmatic screen' in Zizek's words, which 'conceals the fact that the subject is already thoroughly 'rootless', that his true position is the void of universality' [Zizek 1997:44]. However, there is a less startling reversal as well that may need to be addressed here, insofar as the 'void of universality' can be filled with a thoroughly 'rooted' eurocentricity, if not racism, that does not attempt to screen its arrogance. Racism does not always work with screens; it can be most respectably enunciated through the most cultivated opinions.

EUROCENTRICITY, RACISM, MULTICULTURALISM

At this point, it would be expedient to inflect the relationships between eurocentricity, racism, and multiculturalism. While Zizek has no difficulty in describing multiculturalism as racism, the film theorists Ella Shohat and Robert Stam would not merely oppose such an equation, they would even insist that eurocentrism and racism are in no way 'equatable', even though they may be 'historically intertwined' [Shohat and Stam 1994:4]. Regarding Eurocentrism as an 'implicit positioning rather than a conscious political stance' (ibid), Shohat and Stam would stress that it is possible to be anti-racist and eurocentric at the same time. While this is undeniably true, the possibility that racism can be nurtured in and through eurocentrist values should not be summarily denied. Unfortunately, this is precisely the elision that underlies Stam and Shohat's otherwise persuasive reading of 'critical and polycentric multiculturalism' that is related at 'reciprocal' and 'dialogic' levels to a critique of eurocentricity. This critique results in what I would describe as a wish-list of multicultural virtues – 'no pseudo-equality of viewpoints', 'no established hierarchy

of cultures', 'no essentialist concept of identities', even an acknowledgement of the 'pain, anger, resentment' that inevitably surface in the meeting of historically differentiated and colliding cultures [ibid:48,358].

Despite their disclaimers that a radical multiculturalism cannot be 'nice' or 'politically correct', Shohat and Stam's prescriptions of multiculturalism succumb to these very traps in their overly modulated master text that ultimately rises above all controversies, even as it claims the right to represent them. In a consciously non-subalternist mode of representation – 'Can the non-subaltern speak?' is their plaintive reversal of Gayatri Spivak's radical question – Shohat and Stam's discourse on 'unthinking eurocentrism' is, perhaps, unthinkingly exclusivist in its refusal to submit the liberal premises of their text to subalternist scrutiny. An emphatic tolerance pervades their reading of intolerance, so much so that while racism is acknowledged at implicit and xenophobic levels in other writers, it has no place within their ontologies of either eurocentrism or multiculturalism.

This erasure of racism in multicultural agendas is particularly problematic in those contexts where the blurred relationships between eurocentricity and racism need to be highlighted. Consider, for example, the following notorious statement allegedly made by the American novelist Saul Bellow "When the Zulus produce a Tolstoy, we will read him [the Zulu Tolstoy]". The explicit cultural superiority of this statement can be read as racist not least by the Zulus themselves, who continue to be metaphorised as the nadir of primitivism, which totally denies them their historicity and dignity of being. As Charles Taylor, one of the most reflective interlocutors in the debate around multiculturalism, has pointed out:

(1) The Zulus have to produce a Tolstoy in order to prove themselves [Taylor 1994:71]. Nothing within their own cultural heritage can serve as an appropriate point of reference. The standards of excellence have already been determined in Europe, and the Zulus have to live up to them.

(2) The Zulus have yet to produce a Tolstoy ('When the Zulus...'). This indicates some kind of feigned familiarity with the existing oeuvre of Zulu literature, with which Bellow might be quite unfamiliar. In this regard, he would not be essentially different from our very own Salman Rushdie (and here I am consciously shifting the context in order to emphasise that cultural superiority is not the prerogative of European authors alone). In response to 'fifty years of independence', Rushdie has had the audacity to affirm a pantheon of Indian literature in a volume of select writings [Rushdie and West 1997] that has the dubious distinction of excluding all contemporary Indian writers writing in Indian languages, apart from English – languages which Rushdie might not have read, even in translation. This 'privileged voice of the diaspora', to appropriate a phrase used by Geeta Kapur in another context, is legitimised not through the invocation of a legacy (as in Bellow's invocation of Tolstoy), but through the sanction of the market and the liberal endorsement of the *New Yorker*.

(3) Back to the Zulus and Tolstoy, I would add a third reservation: Perhaps, the Zulus are not interested in producing a Tolstoy. He would, in all probability, bore them to death. Not reading Tolstoy could be a 'cultural choice' that should not be denied to them. Rejecting Tolstoy, however, without having read him, could pose a liberal dilemma.

(4) Taylor, however, adds a more provocative complication into the argument: "The possibility that the Zulus, while having the same potential for culture formation as anyone else, might nevertheless have come up with a culture that is less valuable than others is ruled out from the start. Even to entertain this possibility is to deny human equality" [Taylor 1994:42]. In the articulation of this 'possibility', a critical dialogue on the contesting criteria of assessing and evaluating other cultures becomes imperative.

Contesting Criteria

Let us focus now on Taylor's demand for an adequate set of criteria in order to evaluate the relative worth of other cultures. To assume the equality of cultures without knowing anything about them, amounts, in his view, to another kind of patronisation While this reasoning is eminently sound, it can be read as another 'screen' (in Zizek's sense of the word) insofar as it barely conceals a vehement rejection of those 'subjectivist, half-baked, neo-Nietzschean' positions [ibid:70], which assume that all judgments of worth are based on standards that are intrinsically hegemonistic and power-ridden.

At one level, it could be argued in Taylor's favour that while multicultural artists, for instance, have every right to question the standards of the decision-makers, who determine what is 'good' and 'bad' in multicultural practice (and consequently, what should be funded and what shouldn't), these artists cannot fetishise their condition to such an extent so as to believe: "Because we are so marginal, and no one understands us anyway, we alone have the right to determine our own standards and critical criteria". This attitude can easily lead to another kind of intolerance, if not self-mystification, which Taylor would castigate for its undermining of the human capacity to discriminate and to make reasoned choices.

On the other hand, to argue against Taylor's position, one could say that it is so entrenched within the rigour of a continental philosophical system (Rousseau, Herder, Hegel) that it theorises multiculturalism from above without taking into account the humiliation and rejection of a wide spectrum of immigrant communities, who may have no other option but to create their own 'neo-Nietzschean' criteria for their own self-respect, if not survival. At no point in Taylor's scrupulously argued theory is there an awareness of how the spectre of 'worth' can hegemonise the norms of 'quality' in essentially monocultural contexts. Not only is this elusive 'quality' denied *ipso facto* to multicultural artists, for instance, without of course being defined in any coherent way, it is also protected within privileged frameworks to which immigrant and foreign cultural workers are denied access. The outsiders who dare to cross the threshold of 'quality' could be rejected for being:

(a) too different ('Your work is interesting but we don't know where you're coming from. Of course, we wouldn't want to misrepresent you, therefore...').

(b) not different enough ('Your work is not sufficiently authentic. We're looking for something typically Indian').

(c) just like us ('Why is your work so modern?').

In Taylor's defence, of course, one should emphasise that he is not dealing with cultural practice as such but with the criteria by which other cultures need to be perceived and evaluated. Nonetheless, there are many valuable philosophical insights to be imbibed from the subversive ways in which multicultural artists have dealt with the strictures of 'ethnic insiderism', by which 'black artists are never allowed to be ordinary but have to visibly embody a prescribed difference' [Mercer 1997:37]. The problem is that even within Taylor's philosophical framework of multiculturalist politics, there is no space for subversion. Immigrant communities deserve 'our' respect, but the fact that they could disrespect the frames in

which their differences are being accommodated is not confronted as a viable choice. Drawing on Hans-Georg Gadamer's 'fusion of horizons', Taylor would seem to circumvent, if not postpone the actual struggle of interacting with cultural differences. Besides, do we need a 'fusion' in order to meet through differences? Surely an intersection or collision or ellipsis of horizons is more likely to resist the risks of cultural homogenisation.

Moreover, while critical criteria are necessary for the exchange of cultures on an inter/multicultural basis, one needs to acknowledge that they could be indeterminate, if not fuzzy in their contours and orientations. Indeed, as Susan Wolf has argued perceptively in a related context, indeterminacy could be one of the primary constituents of a pluralist sensibility which works against the premises of absolutism, relativism, and subjectivism [Wolf 1992:786-90]. While an absolutist position assumes that there is only one right answer overruling the relativist claim that 'what is right for you is different from what is right for me' [ibid:789], a subjectivist position, on the other hand, would claim that 'anything goes' [ibid:790], countering the more reflexive pluralist position which acknowledges that 'if there is no right answer...this does not imply that there are no wrong answers' (ibid). The seeming equivocality of the pluralist position does not mean that it is without commitment; nor does it fear the finality of answers. However, it is aware that in certain inter/multicultural contexts, the 'question of what is right...lacks a unique and determinate answer' [ibid:789].

While it could be argued that Wolf's comments relate primarily to the search for pluralism in ethics, it does not come as a surprise that she should find Taylor's preoccupation with 'worth' in the multicultural context to be an 'oddly disturbing' prioritisation over the larger issue of justice [Wolf 1994:78, 85]. While she shares Taylor's rejection of the subjectivist position that would insist on affirming the equality of all cultural contributions 'prior to inspection and appreciation' – such subjectivism merely results in 'contempt for the very practice of justification' and the possibility of 'authentic respect' [ibid:78] – Wolf is more resistant to the fundamental continuum that Taylor seems to uphold in assessing the worth of cultures and developing a politics of recognition and respect that is due to them. Wolf would argue that one needs to respect other cultures regardless of their 'relative worth' or whether they have anything 'particularly important to teach the world', or even at a more pragmatic level, if an acquaintance with them is likely to 'pay off' in terms of a more 'enlarged understanding of the world and a heightened sense of beauty' [ibid:81, 85]. One respects other cultures, and more specifically, peoples from other cultures because they are part of 'our community' [ibid:81]. To pretend that our 'foreign' neighbours and colleagues are 'just like us', or that they are worthy of respect only after we have studied their cultures adequately on a comparative basis, can only play into the existing prejudices of the 'Saul Bellows' of this world, who would prefer to retain their liberal aura of omniscient tolerance in the absence of a 'conscientious recognition of cultural diversity' [ibid:85].

VI
Philosophy and Practice

There is much for intercultural workers – and decision-makers, in particular – to learn from these philosophical investigations, particularly when the task of negotiating different cultural frames (as opposed to a singular one) poses additional challenges of perceiving, and indeed of preparing the ground to interact with other cultures. We may need to develop in this regard a respect for imperfection in our shaping and viewing of inter/multicultural collaborations, which should not be equated with a valorisation of half-knowledge that so often passes as 'expertise' by the *afficionados* of 'other' cultures.[8] Without engaging sufficiently with the difficulties involved in perceiving inter/multicultural practices – from whose eyes, and from which perspective do we observe the 'inter'? on what frames of reference can we draw to encompass the 'multi'? through which criteria? whose criteria? – it becomes somewhat premature to settle for a 'fusion of horizons' as Taylor does, instead of exploring the actual cultural dynamics of indeterminacy in a democratisation of cultural differences.

At this juncture, one is compelled to acknowledge the crisis of practice in much philosophical and social scientist thinking on multiculturalism, and more specifically, the insufficient engagement of philosophers with emergent cultural practices. On the one hand, earlier methodologies and disciplines of conceptualising 'culture' (including its practices) are incorporated within larger social and political theories of multiculturalism, but they are proving to be inadequate to deal with the influx of new social forces and circumstances that have resulted in unprecedented interactions with cultural strangers ('aliens') in the public sphere. While it may not be the responsibility of political philosophers to figure out how new cultural languages can be created – and perhaps there is a certain theoretical rigour in not intersecting political philosophy and cultural practice as I am attempting to do in this essay – the point is that without a cognisance of these new cultural languages there can be no real breakthroughs in conceptualising the matrices and paradigms of multicultural theory.[9] Thus, we find Charles Taylor acknowledging the necessity of being 'open to comparative cultural study of the kind that must displace our [*sic*] horizons in the resulting fusions' [Taylor 1994:73]. As he puts it, 'To approach a raga with the presumptions of value implicit in the well-tempered clavier would be forever to miss the point' [ibid:67]. But perhaps, it is Taylor who is missing the point in restricting multiculturalism to an evaluation of what already exists (and tellingly, in the uncontested realm of 'high culture'), instead of figuring out the 'multicultures' in the making through popular and mass mediations (to which immigrant communities have greater access).

In this context, while one can agree in principle with Taylor that human identities are created dialogically through an encounter with 'significant others' (George Herbert Mead), one is nonetheless compelled to recognise the existing cultures of 'insignificant others'. Why does the narrative of multiculturalism need to perpetuate a post-enlightenment notion of 'enrichment' through the 'significance' derived from the 'rich human languages' of other cultures? Besides, multiculturalism is enriched not through accretion and absorption alone, but through a dismantling of predetermined legacies and genealogies. In order to gain something, we may have to give something up. Taylor does not begin to grasp the pertinence of this axiom, which assumes, in my view, the multicultural necessity of betraying

one's culture of origins. This betrayal is not merely the burden of the immigrant who is displaced from his or her homeland: those who assume a citizenship that is being granted to others need to re-think their own norms. The challenge is not merely, as Taylor puts it, 'to deal with their sense of marginalisation without compromising our basic political principles' [ibid:63]. Taylor, I would suggest, needs to accept the dialogic possibility of his marginalisation as well. Why should minorities always be 'othered' for the enrichment of their assumed benefactors?

If Taylor suffers from an excess of caution, which almost legitimises the absence of an exploratory, potentially messy relationship with other cultures, most inter/multicultural artists whom I have encountered, would seem to function with an excess of desire for the Other. Clearly, their preoccupation is not with the worth of other cultures, but with the mystique of their difference ('I'd love to work with the Zulus' would be their enthusiastic response) And yet, it is worth pointing out that the desire for the Other in actual practice need not always be reciprocated for very strong social, historical, and political reasons. This resistance to an assumed reciprocity in cultural exchanges needs to be inscribed in our search for collaborations.

Keeping this in mind, I would emphasise the euphoria underlying the neo-liberal pursuit of 'cultures of choice' [Schechner 1996:49] from within the comforts of a metropolis, where cultures can be readily consumed along with their cuisines. It would be necessary to question whether these cultures want to be consumed in the first place. Secondly, one needs to resist the fatuous belief that ethnicities are so fluid that they can be 'bartered' and 'swapped'; they can 'hybridise' and enter into all kinds of 'promiscuous' relationships (ibid). The individuals who can afford to barter and swap their ethnicities have obviously no difficulty in affirming their multiple selves. But if one considers the predicament of underprivileged communities like the dalits in India, for instance, whose ethnicities have been stamped on, demeaned, and inferiorised for centuries, surely the task of upholding a dalit identity is part of a long and hard struggle, which has involved a disidentification from earlier, hallowed, patronising descriptions of untouchables as 'harijans'. In this struggle, where identity is politicised in a consciously affirmative mode, a dalit cultural worker or activist is not likely to let go of his or her ethnicity because this could be the only lever for self-respect through social and political mobilisation.

At this point, the counter-argument could be that interculturalism is not dealing with the dalits of this world, the wretched of the earth. Who then are the appropriate candidates for intercultural exchange? Are we – and I include myself here – part of an exclusive club of frequent flyers, the privileged diaspora, the global intelligentsia, the enlightened exiles? If that, indeed, is the case, could we then account for our exclusions? Or can we perhaps extend the privilege of interculturalism not merely to 'one of us', but to non-metropolitan community workers and activists as well, who have as much right as we do to crossing borders? This extension of privilege, however, is only possible through an implosion of its values by its most self-confident beneficiaries. A crisis of faith is needed – yet another betrayal, if not infiltration of global capitalism from within its cultural enclaves – before the resources that make interculturalism possible can be redistributed at more subversive, yet democratic levels.[10]

While multiculturalism works within the 'cultural logic of multinational capitalism' [Zizek 1997], I would like to believe – and perhaps this is the utopic thrust in my own discourse – that interculturalism has the potential to work against this logic. But for this to happen, its practitioners will have to dispense with many proliferating myths of globalisation, namely, its invincibility, inevitability, non-negotiability, accompanied by the hoax of a liberalised world economy that has emerged through the apparent dissolution of national sovereignties and borders. Along with 'the myth of the powerless state' [Weiss 1997], we need to undermine the bogey of the essentially demonic, anachronistic state that has been reinforced through recent theories of post-nationalism, which have attempted to displace conventional (yet tenacious) notions of place, community, and belonging in favour of emergent identities in 'diasporic public spheres' [Appadurai 1997].

Emergent cultural identities, as I have emphasised elsewhere [Bharucha 1998], are not the prerogatives of the diaspora alone. Indeed, they are very much in the making along with new subject-formations within the fractious and contradictory processes of people's movements in India, wherein the 'national' is in the process of being re-articulated against the hegemony of the nation-state and its global affiliations. Within this democratisation of 'political society', as Partha Chatterjee (1997) has conceptualised the process, it becomes imperative for artists and cultural workers to realign their own increasingly atomised constituencies to cultures of struggle, wherever they may exist in the world. It is within these contexts of struggle that the most critical debates on intellectual property rights and the destruction of the ecological bases of world cultures can be meaningfully contextualised and shared across different locations. It is also around these struggles that intercultural dialogue can deepen beyond an exchange of techniques and resources to a recognition of the increased poverty and unemployment of artists almost anywhere in the world; the increased apathy of governments to the arts (which seems to be increasing in direct proportion to the rhetoric of multiculturalism); and finally, the glib (and violent) displacement of the human in favour of what can be commodified, marketed, and patented. It is out of a recognition of these realities that we can restore our faith in what Slavoj Zizek describes as 'the true universality to come', which should not be assumed to exist in our existing inequitous practices, but which needs to be worked on, struggled for, and strategised through a more sustainable, reflexive, and dialogic intercultural praxis.

Notes

[Shorter and somewhat different versions of this article have been presented at the conference on 'Frameworks for Art' organised by the Mohile Parikh Centre for the Visual Arts in Mumbai, February 1998, and at the First Dom Tower Lecture organised by Passepartout in Utrecht, October 1997. I am particularly grateful to Joost Smiers for sharing his research on 'intellectual property' with a spirit of generosity that makes intercultural exchange both possible and meaningful.]

1 It should be noted that the word 'interculturalism' began to be used in the early 1970s by theorists of 'intercultural theatre' like Richard Schechner, who acknowledges that he used the word as "a contrast to 'internationalism' " [Schechner 1996:42]. Associating the 'international' with 'official exchanges and artificial kinds of boundaries', Schechner posited a different kind of 'exchange among cultures, something which could be done by individuals or by non-official groupings, and which doesn't obey national boundaries' (ibid). While there is undeniably a blurring of national and cultural boundaries, not just in post-colonial societies but in so-called developed countries as well, as Schechner correctly emphasises, the 'national' cannot be erased in any exchange of cultures, either across national boundaries (as in intercultural exchanges), or within national boundaries (as in multicultural or intracultural exchanges attempting to work across different communities, ethnic groups and regional constituencies). The erasure of the 'national', as I will discuss later in the

article, could be one of the most deceptive illusions of intercultural theory.

2 I am reminded in this context of an intercultural art workshop conducted at Sanskriti Sagar in New Delhi, where one of the foreign participants wanted to incorporate embroidery into his art work Unskilled in this specific art, he nonetheless drew a sketch of the image he had in mind: this image was taken by an intermediary to a group of local women artisans doing traditional embroidery for a living Without entering into any dialogue with these women, the artist had no difficulty in accepting their embroidery which he promptly framed, and then claimed as 'his' work of art (for which he obviously got a price when it was sold) Is this illegitimate art practice, or a legitimate rip-off?

3 Emergent debates around 'authorship' have extended both to the avant-garde and popular sectors of contemporary cultural practice in India For instance, in the 're-mixing' phenomenon of Hindi pop music, old hit songs from early Hindi movies are receiving electronically transformed renditions, with no acknowledgement whatsoever to their original sources [see Jha (1998) for a sharp journalistic account of these commercially legitimised modes of plagiarism]. Significantly, while the re-mixing maestro Bally Sagoo is obviously savvy enough to distinguish between a 'lift' and a 'cover version' of the same song, whether he is re-mixing Nusrat Fateh Ali Khan or the veteran Hindi film composer R D Burman, the idea of 'quotation' has yet to enter the vocabulary of pop music in India, following the more ironic and reflexive experiments in international pop

About the only self-conscious mode of quotation in contemporary Indian art practice is to be found in the relatively recent development of 'installations' Vivan Sundaram's Memorial (1993), for instance, draws heavily on an anonymous press photograph (by Hoshi Jal) of a victim in the Mumbai riots – an image that is defaced/framed/ concealed/ cut/erased in a variety of ways This installation provoked a debate on the need to acknowledge all the sources and credits in multi-media work notably photography as used in the 'art form' of the installation [see Satish Sharma's acerbic 'Still a fodder for the "finer" arts' (1993), for a critical perspective on the issue of acknowledgement] Similar debates have yet to emerge in discussing the 'classical' Indian performing arts, where the routine appropriations of 'folk', 'traditional' and tribal' resources are systematically legitimised, if not honoured under the pretence of 'reviving' traditions, or of 'innovating' new ones

4 It is necessary to point out that Brook's 'ultraculturalism' was made possible through the patronage of the Empress Farah and the Shah of Iran, the official benefactors of the Shiraz Festival in which *Orghast* (1970) had been prominently featured Such seeming oblivionsness to the cultural facade of a political dictatorship reveals the depths at which interculturalists can seek refuge in the platitude that 'art has nothing to do with politics'

5 There are two caveats that need to be included in the discussion here One would concern the possible tensions that could emerge in any developing society where 'social and political consciousness' supersedes, if not functions independently of 'national consciousness'. In this regard, Fanon disturbs any complacency relating to the genealogy of consciousness. While affirming the necessity for a rapid transformation of national consciousness into social and political consciousness, he also acknowledges "The African people and indeed all underdeveloped peoples, contrary to common belief, very quickly build up a social and political consciousness. What can be dangerous is when they reach the stage of social consciousness before the stage of nationalism" [ibid.164] The prescience of this observation relates provocatively to the Indian context of people's struggles, where with all the multiple oppositions to the Sardar Sarovar project in Narmada, the Cogentrix plant in Dakshina Kannada, the patenting of biodiversity, the numerous struggles of dalits, adivasis, ryots, there is still no adequate organising framework that brings these movements together through sustained interaction. Tellingly, through the valiant efforts being made in this direction by the National Alliance of People's Movements led by the environmentalist-activist Medha Patkar, one is alerted to the continuing resonance of the 'national' as providing the site for consolidating the larger struggle for people's democracy and social justice.

There is yet another caveat that needs to be included in the re-articulation of the 'national' I have in mind Homi Bhabha's somewhat disingenuous attempt to acknowledge that "the national in the Fanonian 'good' sense can be found in those kinds of minority fronts, which are articulating a transnational connection outside of the usual currency of national discourse" [Bhabha 1996:43]. This is yet another reiteration of what Benita Parry has justifiably criticised as Bhabha's penchant to 'annex' ideas of resistance that are decontextualised from specific histories of struggle. While I would not deny the transnational linkages of the environmental struggles in India with similar movements in the Amazon and elsewhere, I would foreground the specifically national context of these movements, which are not 'minority fronts' in some larger nebulous map of diasporic connections But people's movements intrinsic to the struggle for democracy in a post-independence/post-Ayodhya India.

6 'Border Art' refers to an interdisciplinary, multicultural movement of activist performances and installations initiated in 1984 by an eclectic group of American, Mexican, and Chicano writers and artists located in the neighbouring cities of San Diego and Tijuana Now afflicted by its own internecine clashes of conflicting egos and different readings of 'the border', this movement is nonetheless memorable for its audacious and transgressive representations of exile, migration, xenophobia, and racism. Some of its site-specific performances have literally been played across the border of different states

7 'Inroads' refers to an ambitious intercultural project funded by the Ford Foundation, where the basic premise is to open the possibilities of interdisciplinary, cross-cultural collaborative work with artists based in the US. As the unidirectionality of the word suggests, 'inroads' is restricted by its specific ordering of routes, and the implicit bias in favour of cultures from the south feeding the multicultural agenda of the north (in this case, specifically the US).

8 I was alerted to the intercultural dynamics of the 'respect for imperfection' in a presentation made by Adrian Piper in a conference on 'Frameworks for Art' at the Mohile Parikh Centre for the Visual Arts in Mumbai, February 1998 Piper began her presentation by acknowledging that she was opening herself

in an Indian forum to a great deal of risk, if not derision, by speaking on yoga, one of the disciplines that has inspired her own analytic philosophy and performance practice. Admittedly, Piper's 'imperfections' were real, not least her mispronunciations of basic Sanskrit words (which she herself constantly highlighted), apart from a very literal paraphrase of Patanjali. But this was just the prologue, if not preparation for her own philosophical journey into an exposure of racism and the politics of appearing to be 'white' when one is, in actuality, 'black'.

This transition from the philosophical context of yoga into the political realities of racism was a mind-blowing experience for the audience. What impressed and moved me deeply was not Piper's conceptual translations of the terms moksha and dharma within the junctures of her own autobiographical narrative, but the quality of stillness and concentrated energy in her presence. This, for me, was yoga in action. It was also an illumination of the subversive possibilities of yoga as a 'political' discipline. In retrospect, I would emphasise how much there is to learn from Piper's interculturality, where there is no attempt to demonstrate yoga as a set of skills which has become the norm in the fetishisation of oriental techniques by intercultural performance 'experts'. Piper demonstrates through her practice how the principles of one context can catalyse the formation of narratives in other contexts, without losing their inner resilience and vibrancy. To her colleagues in philosophy as well, Piper offers an altogether unprecedented provocation in her ability to concretise thought through performance.

9 In Bhikhu Parekh's reflections on 'being British' in the multicultural context of Britain today, there is an interesting focus on what constitutes 'the cultural language' of the nation. While this language is posited as an entity, it is also undergoing changes and incorporating a wide spectrum of 'different though mutually intelligible accents and idioms' [Parekh 1990:75]. 'Being British' is not about generalities like sharing '*values*' or a '*common view of British history*', still less about '*obeying laws*' and '*loving*' British society; it is specifically related to a 'conceptual competence' in being able 'to understand and handle the prevailing variety of accents' (ibid, emphases in original). Unfortunately, Parekh does not even begin to suggest how one goes about developing a cognisance of these 'pluralised' accents. Instead, he falls back on liberal urbanity by invoking 'a new spirit of partnership, a spirit of what the Romans called civic friendship' (ibid). This prelapsarian mode of utopianising the multiculturalism of our times is yet another implicit regression, reminiscent of Taylor's endorsement of a 'fusion of horizons'.

10 In economic terms, the privilege of interculturalism can only be deconstructed by those who control the capital that makes its practice possible. This involves much more than a liberalisation of existing funding policies, which continue to be based on moribund humanitarian and philanthropic premises that were formulated during the cold war to promote the privatisation of cultural capital. Today, a radical shift in the paradigms of funding is urgently needed, but this is not possible without an infiltration of new ideologies like the 'new abolitionist project' in white studies, which is based on the repudiation of the 'lie of whiteness' and the privileges attached to it [Winant 1997].

This 'new abolitionism' is considered by its proponents as 'the precondition for the establishment of substantive racial equality and social justice' [ibid:85]. Following the motto 'Treason to whiteness is loyalty to humanity', it exhorts whites to become 'race traitors' (ibid). While this position is not without its blind spots – not least, as Howard Winant points out, the inscription of 'non-white elements' within existing notions of whiteness – the 'new abolitionist project' is an appropriate challenge, in my view, to the tacit liberal support of prevailing racial and social injustices. Significantly, as the new funding policies around 'cultural diversity' programmes in the US indicate, there can be no meaningful mobilisation of cultural diversity without an acknowledgement of continuing racial discrimination. Finally, one is compelled to add that the implicit privileges of whiteness continue to underlie the very formulation of the funding policies themselves, which refuse to acknowledge their own racial underpinnings.

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in Tamil Nadu than in Andhra Pradesh and in Kerala. The difference in the TFR between Andhra Pradesh and Tamil Nadu was nearly 0.7 births in 1971-73. There was a slow rate of decline in fertility both in Tamil Nadu and in Andhra Pradesh in the 1970s. However, the performance of Andhra Pradesh was superior to that of Tamil Nadu in the same period. This reduced the gap in the TFR between these two states to 0.4 births by 1979-81. Tamil Nadu has begun a course of rapid decline in fertility from the early 1980s. On the other hand, a stagnancy in the fertility rate is observed in Andhra Pradesh in the same period. This has again widened the gap in the TFR between these two states, roughly by one birth. The intensification of fertility decline in Andhra Pradesh started in the second half of the 1980s. Starting from the mid-1980s, the percentage decline in fertility has been sharper in Andhra Pradesh than in Tamil Nadu. On account of this, the expected number of births per woman has narrowed down to 0.6 by 1993-95. We must note, however, that Kerala recorded the higher rate of decline even in the 1970s.

An interesting aspect of fertility decline in Andhra Pradesh is the uniform rate of decline noted both in rural and urban areas. The decline in TFR between 1971-73 and 1993-95 was nearly 39 per cent in rural areas and 40 per cent in urban areas. The pace of decline in fertility in urban areas was higher in the 1970s and it widened the gap in TFR between rural and urban areas during 1974-76 to 1981-83. In all the other periods the difference in the number of children between rural and urban areas was less than one.

Fertility differentials are commonly observed not only with regard to the place of residence (rural or urban) but also for different sociocultural groups. Educational level, religion and caste group are the common variables with respect to which significant differences in fertility rate are noticed in India. The total fertility rate for groups classified by these selected characteristics is presented in Table 3.

Differential fertility is commonly noted for all the background characteristics in Andhra Pradesh. Across the different educational groups, the total fertility rate is lower among the literate with some educational background than among illiterate women. It may be noted in this context that around 69 per cent of the ever married women were illiterate in the state according to NFHS survey. Therefore, the considerable decline in fertility noted in the state would be the result of decline among the illiterate groups also, although the level of fertility among them is higher than among the literate group. The difference in fertility between Hindus and Muslims is narrow in the state. Christian, constituting 3.4 per cent of the eligible women in NFHS survey, however, record very low levels of fertility. The highest level of fertility is observed among the scheduled tribe population. Scheduled castes, on the contrary, records a TFR almost in line with the entire state. Nearly 5 per cent of the ever-married women in NFHS survey belonged to the scheduled tribe communities.

There is a strong correlation between total fertility rate noted from background characteristics and the percentage of family planning acceptors in the state. Illiterate women have substantially lower levels of acceptance rate than women with some educational level. The rate of acceptance is almost similar between Muslims and Hindus. Interestingly, the acceptance rate of family planning between scheduled castes and scheduled tribe population is also similar although the fertility rate among them varied substantially.

On the whole, it may be concluded that although the fertility rate differs with various characteristics, the level of fertility is low among all these groups, except scheduled tribes. Hence, perfect homogenisation in fertility is still to take place in the state. However, the interesting observation is that the fertility rate among the Muslims is in line with the state level and close to that of the Hindus.

Districtwise Fertility Decline

Andhra Pradesh is divided into three regions primarily based on historical factors. There are significant differences among the three regions, coastal Andhra, Telengana and Rayalaseema in the levels of socio-economic development. Andhra Pradesh was formed by amalgamating the Telugu-speaking areas of the Madras province under British India and the princely state of Hyderabad, which comprises the region of Telengana, one of the least developed regions at the time of independence. It is not that all the districts in one particular region are homogeneous in the levels of development. In the Andhra region of Madras province, there are less developed regions like Rayalaseema and north coastal Andhra compared to other coastal districts. Nonetheless, in most of the socio-economic characteristics, coastal Andhra fares better than the other two regions.

The estimates of district level total fertility rates are available from 1981 Census. However, the corresponding rates based on 1991 Census are not yet published. Bhat (1996) has undertaken an indirect estimation of district level TFR from the available information on the population of age below seven years from 1991 and 1981 Censuses. Hence district level estimates of TFR is available for 1974-80 and 1984-90 period. For the latest years, Balasubramanian and Satyasekhar (1998) have estimated TFR from the available couple protection rate at the district level. The different district level estimates along with female literacy rate and infant mortality rate (IMR) are presented in Table 4.

Table 4 clearly brings out the fact that the state is characterised by, possibly, one of the highest levels of regional heterogeneity among Indian states. The TFR estimates vary between 1.9 in West Godavari district and 3.4 in Adilabad district in 1995. Fertility rates are generally higher in the Telengana region. Moreover, the rate of decline in fertility in few districts in this region is also comparatively poor. Districts like Medak and Adilabad recorded higher levels of fertility and also a low rate of decline in the 1980s. Incidentally, Adilabad and Medak are two of the poorest districts in the state.

In a nutshell, all these data indicate that while there are significant variations in the

Table 2 Total Fertility Rate of Three Southern States and All-India
(Three year moving averages)

Years	AP	Ker	TN	All Ind
1971-73	4.5	4.0	3.8	5.1
1972-74	4.5	3.7	3.7	5.0
1973-75	4.5	3.5	3.7	4.9
1974-76	4.5	3.4	3.7	4.8
1975-77	4.4	3.3	3.8	4.7
1976-78	4.3	3.1	3.7	4.6
1977-79	4.2	3.0	3.7	4.5
1978-80	4.1	3.0	3.5	4.4
1979-81	3.9	2.9	3.5	4.4
1980-82	3.9	2.9	3.4	4.5
1981-83	3.9	2.8	3.3	4.5
1982-84	3.9	2.6	3.3	4.5
1983-85	3.9	2.5	3.1	4.4
1984-86	3.8	2.4	2.9	4.3
1985-87	3.7	2.3	2.7	4.2
1986-88	3.6	2.2	2.6	4.1
1987-89	3.3	2.1	2.5	4.0
1988-90	3.2	2.0	2.4	3.9
1989-91	3.1	1.9	2.3	3.8
1990-92	3.0	1.8	2.2	3.7
1991-93	2.8	1.7	2.2	3.6
1992-94	2.7	1.7	2.1	3.5
1993-95	2.7	1.7	2.1	3.5
Rate of Decline (in Percentages)				
1971-73 to 1979-81	1.73	3.86	0.83	1.98
1980-82 to 1984-86	0.52	4.92	3.81	1.13
1985-87 to 1989-91	4.94	4.79	3.58	2.68
1990-92 to 1993-95	3.31	1.91	2.16	1.58

Note: Same as in Table 1
Source: Sample Registration System, various years.

fertility rate among the regions in the state, a considerable amount of homogeneity is noted with regard to different sociocultural backgrounds. The difference in the fertility level for different sociocultural groups has been much lower than that noted among the regions. There has been a decline in all the districts, although the pace of decline is slow in a few districts in the Telengana region. In the coastal Andhra region, which is comparatively prosperous, fertility levels are lower. This is true even in the case of Srikakulam and Vizianagaram, the two poor districts in the case of north coastal Andhra. On the whole the poorest districts in Telengana region recorded a slower rate of decline and higher levels of fertility than in the other districts.

II
Factors Influencing Fertility Decline in Andhra Pradesh

The decline in fertility in any population, both historical and contemporary, has been attracting wide attention from researchers. Arguably, the decline in fertility is one of the important social and historical developments taking place.[2]

Studies on the European countries have clearly brought out the fact that fertility decline could take place under a wide variety of social, economic and demographic conditions [Coale and Watkins 1986]. The onset of fertility decline had occurred with infant mortality as high as 221 in Germany in 1890 and the percentage of literate as low as 40 per cent in Bulgaria in 1912 [Knodel and Walle 1979]. One of the crucial findings from the European fertility studies which has implications for developing countries is that decline in fertility can even occur in places with low levels of female literacy and high rates of infant mortality.

The discourse on fertility decline in India is mainly confined to two southern states in the country. The dramatic decline in fertility in Kerala in 1960s and more recently in Tamil Nadu has attracted the attention of scholars, both national and international. The experience of Kerala, on the whole, led to the understanding that even without significant improvement in the levels of industrialisation, urbanisation and material improvement in the standard of living of the people, fertility reduction could take place with social development.[3] Female literacy came out as one of the strongest variables explaining fertility decline in Kerala [Krishanan 1976; Bhat and Rajan 1990]. Along with female literacy, the health status of the people reflected in the low levels of infant mortality rate was also considered as a further possible explanation for fertility decline in the state in the above studies. Kerala's quick fertility decline has also led to several other explanations like those referring to socio-economic improvement [Zachariah 1984; Zachariah et al 1994], social justice in political and economic policies and development strategies reflected through land reforms and increased wages to agricultural labourers [Ratcliffe 1978], poverty induced factors [Mencher 1980;

TABLE 3. TOTAL FERTILITY RATE AND PERCENTAGE OF CURRENTLY MARRIED WOMEN ACCEPTING ANY MODERN METHOD OF FAMILY PLANNING BY DIFFERENT BACKGROUND CHARACTERISTICS IN ANDHRA PRADESH, 1989-91

Characteristics	TFR	Per Cent of Acceptors	Per Cent of Women
Residence			
Urban	2.35	55.6	26.1
Rural	2.67	43.3	73.9
Education			
Illiterate	2.97	43.2	68.7
Literate, < middle complete	2.23	55.8	13.4
Middle school complete	2.23	54.6	7.6
High school and above	1.84	50.1	10.4
Religion			
Hindu	2.59	46.5	88.0
Muslims	2.89	44.1	8.3
Christian	1.71	51.5	3.4
Caste/tribe			
Scheduled caste	2.61	35.8	15.0
Scheduled tribe	3.74	36.0	5.2
Other	2.52	49.8	79.8
Total	2.59	46.5	4276*

Note * Total number of eligible women in NFHS
Source National Family Health Survey (1995).

TABLE 4. DISTRICTWISE TOTAL FERTILITY RATE, FEMALE LITERACY RATE AND IMR FOR DIFFERENT PERIODS

	1981	1974-80	1984-90	1995	Female Literacy Rate (7+) 1991	IMR 1991	Per Cent Decline in TFR 1981-95
Coastal Andhra							
Srikakulam	4.1	4.6	3.5	2.1	23.5	65	48.78
Vizianagaram	4.0	4.5	3.2	2.4	22.5	77	40.00
Visakhapatnam	4.0	4.1	2.9	2.3	34.6	54	42.50
East Godavari	3.8	4.2	3.2	2.1	42.3	48	44.74
West Godavari	3.9	3.9	2.9	1.9	47.0	43	51.28
Krishna	4.3	3.7	2.9	2.0	45.5	27	53.49
Guntur	4.1	3.7	2.7	2.1	35.9	30	48.78
Prakasam	4.6	4.4	3.0	2.2	27.1	41	52.17
Nellore	3.9	3.8	2.6	2.4	37.0	40	38.46
Rayalaseema							
Kurnool	5.0	5.0	4.1	2.7	26.0	65	46.00
Anantapur	4.9	5.1	3.6	2.9	27.6	63	40.82
Cuddapah	4.5	4.2	2.8	2.9	32.4	42	35.56
Chitoor	4.0	4.0	2.7	2.6	36.4	42	35.00
Telengana							
Rangareddy	4.8	5.1	4.0	2.6	36.9	44	45.83
Hyderabad	4.2	3.6	2.9	2.6	63.6	21	38.10
Nizamabad	4.1	4.2	3.2	2.9	21.4	35	29.27
Medak	4.6	4.8	3.9	3.3	19.3	43	28.26
Mahabubnagar	4.9	5.5	4.2	3.3	18.0	74	32.65
Nalgonda	4.5	4.9	3.6	2.5	24.9	50	44.44
Warangal	4.6	4.9	3.4	2.7	26.1	48	41.30
Khammam	4.7	4.9	3.5	2.4	30.5	41	48.94
Karimnagar	4.1	4.2	3.2	2.9	23.4	30	29.27
Adilabad	4.6	4.9	4.0	3.4	20.6	45	26.09
Andhra Pradesh	4.3	4.3	3.2	2.6	32.7	45	39.53

Note: Estimates of TFR for 1995 are based on the observed couple protection rate (CPR) in 1994 (one year lag) using the equation TFR=4.94-0.0487*CPR.
Source: 1981 TFR are taken from Census of India (1981). 1974-80 and 1984-90 TFR are from Bhat (1996); and 1995 TFR from Balasubramanian and Satyasekhar (1998). Literacy rate is from Census of India (1991) and IMR estimated from 1991 Census by Rajan and Mohanachandran (1998).

Basu 1986] and so on. In general, however, female literacy and improved health facilities in the state are considered to be the most powerful among explanations.

The experience of Tamil Nadu, however, suggested that the decline in fertility could take place even with a much lower rate of female literacy and a higher rate of infant mortality than observed in Kerala. Although the female literacy rate in Tamil Nadu was much lower than Kerala, it was well above the national average. This comparison was true even in the case of infant mortality rate. A similar pattern was observed in some districts of Gujarat where the fertility rate has declined considerably even with lower level of female literacy than in Tamil Nadu and higher infant mortality rate [Visaria et al 1995]. All these confirm that it is nearly impossible to specify a threshold level of female literacy that would usher in a sharp decline in fertility [Visaria and Visaria 1994]. An analysis of the 1981 data by Krishnaji and Krishan (1994) showed that in the rural areas of Andhra Pradesh, female literacy, under five male mortality and ratio of male-female under five mortality did not have any relationship with children ever born or total marital fertility rate.

In the case of Tamil Nadu the explanatory factors varied from the implementation of vigorous family planning programme [Anthony 1992; Srinivasan 1995] to the success of backward class movements in the state [Anandhi 1996; Srinivasan et al 1991]. Further, Kishore (1994) argued that the exclusionary process – one that leaves the poor out – of development in the state is the leading cause of decline in fertility in Tamil Nadu.[4] Nagaraj (1997) attributed the fertility decline in Tamil Nadu to the phenomenon of 'social capillarity' where a large section of the population adopt family planning as a means for bridging the gap between increasing aspirations and expectations on the one hand, and the resources to meet these aspirations, on the other. The facilitators for the social capillarity phenomena are held to be: agrarian modernisation, strong rural-urban linkages, changing pattern of mobility, spread and reach of mass media and films, dilution of the progressive sociocultural content within the Dravidian movement in the state and so on.

The onset of the electronic era has also persuaded the researchers to emphasise the importance of the media. It is argued that while in Kerala the print media played a crucial role, in Tamil Nadu, and to some extent in Andhra Pradesh, the access to electronic media was crucial in explaining fertility decline [Bhat 1996]. A similar explanation has been offered from the experience of several developing countries; 'social interaction' has been suggested as one of the powerful forces that accelerate the pace of fertility change in a society [Bongaarts and Watkins 1996]. There can be different channels of social interaction such as spatial proximity to urban centres, extensive media facility and so on.

From the above studies[5] and also from the experience of Andhra Pradesh it may be concluded that it is difficult to prescribe a threshold level of female literacy for fertility transition. However, replacing female literacy with mass media, it is thought, does not reveal much about the mechanism of fertility decline particularly in the rural context. This is not to ignore the fact that the exposure to mass media has considerably gone up even in the rural areas. For example, the NFHS data revealed that among ever-married women in the age group of 13-49 years, nearly 26 per cent watch television and 56 per cent listen to radio once a week, while 41 per cent visit the cinema at least once in a month in rural areas of Andhra Pradesh. Only 32 per cent were not exposed to any mass media in the rural areas of the state. An anthropological study carried out in a panchayat at the East Godavari district also indicated frequent visits to cinema (nearly once in a week) by the poor agricultural labour families in the area [Saavala 1997]. However, the important question is: how is it that poor agricultural labourers in rural areas who are at the bottom of the economic ladder and presumably struggle to meet both ends, could afford to go to the cinema and spend time in watching television? Does this indirectly indicate that the standard of living of the people in the rural areas of the state has gone up at least to some extent so that they can now afford to have some leisure and enjoy life? Without going into the process of change as such, considering mass media as the sole explanation for the fertility decline is unlikely to be useful.

This section, therefore, attempts to bring out the likely forces in the dramatic fertility decline in Andhra Pradesh. The emphasis here is not to test each of the above hypotheses in the case of Andhra Pradesh. However, the first part will state briefly the importance of female literacy and health status in determining the fertility transition in the state. The changes that are occurring in the rural economy of the state are analysed in the second part. Thirdly, a statistical analysis is carried out to understand the factors responsible for fertility change in the state.

Importance of Female Literacy and Health Status

Table 4 clearly indicate that there is a poor correspondence between female literacy rate with total fertility rate among districts in Andhra Pradesh. In no district in the state except Hyderabad which is a fully urbanised district has the female literacy rate crossed 50 per cent. In nearly half the districts the female literacy rate is even below 30 per cent. Very low levels of literacy are recorded particularly in the Telengana region. The female literacy in two districts in this region is below 20 per cent. Even in north coastal districts like Srikakulam and Vizianagram where the fertility rate is comparatively low the female literacy rate is only slightly more than 20 per cent.

This is also true in the case of infant mortality rate (Table 4). The north coastal districts and the districts in the Telengana region generally recorded a higher infant mortality rate than other districts. Some of the districts in the Telengana region like Adilabad, Medak and Rangareddy which recorded highest rates of TFR do not have corresponding high levels of infant mortality rate. This again indicates that the fertility decline in the state is not in line with the decline in infant mortality rate.

Infant mortality rate, however, need not be the only indicator of the health status of the population. The probability of child survival will also depend on the proportion of children getting immunisation. This will, in fact, instill confidence among mothers about the child's survival chances. Further, this also indicates the availability of health facilities in the state. There are also other indicators like the antenatal care received by the pregnant women prior to delivery which would enhance the chances of survival of the child, particularly in the neonatal stages. Women who have received antenatal care would probably be more aware of family planning and the chances of their accepting family planning will also be higher.

The NFHS has collected information on antenatal care received by pregnant women in the four years prior to the survey. The information was collected from those women who had a live birth during the four years preceding the survey. The per cent distributions of live births during four years preceding the survey by source of antenatal care during pregnancy by background characteristics are given in Table 5.

An overwhelming percentage of mothers (86 per cent) have accepted antenatal

care and 62 per cent have received it from a medical doctor in Andhra Pradesh. This is, in fact, a remarkable achievement. Even in the rural areas the percentage of women accepting antenatal care is fairly high. Differences are observed in the acceptance of antenatal services based on the level of education. Interestingly, however, nearly 80 per cent of mothers even among the illiterate groups have received antenatal care. The highest percentage of non-utilisation of antenatal service is observed among the scheduled tribe population (35.5 per cent).

The percentage of children accepting all the vaccinations within 12 months is relatively low (36.5 per cent). However, the percentage of children not receiving any vaccination is also not very high (21 per cent). This implies that health facilities are available to most of the children in the state. However, many of them did not avail of the vaccination in time; nor have they undergone the full course of vaccinations. The availability of health facilities can instill confidence among the mothers on the survival chances of children.

The high incidence of antenatal care observed in the state definitely would have implications for the acceptance of the small family norm and family planning methods. More than half of the antenatal care even in the rural areas is provided by doctors outside home. In the hospital, women may be encountering a number of family planning acceptors and this would encourage them also to accept the same. Proper information on the method of family planning could also be obtained from health professionals during the antenatal check up time

In a nutshell, the role of female literacy and health status on fertility transition in Andhra Pradesh may not be as crucial as in the case of Kerala. However, significant changes are observed in the antenatal care of pregnant women in recent years. This would have played some role in the fertility decline in the state.

Role of Economic Factors

Although studies on fertility in India as a whole did not give much emphasis to the role of economic factors, it would be improper to ignore them altogether. Mainly two important changes are taking place in Andhra Pradesh, which have had an impact on the standard of living of the people. Firstly, there has been a considerable reduction in the population below the poverty line in the state over a period of time particularly in the 1980s. The second change, namely, the changes occurring in the labour market in the state, may be complementary to the first one. For the poor in the rural areas, the standard of living mainly depends upon the labour market conditions [Radhakrishana et al 1988].

The reduction in poverty in the state has been substantial over the last two decades and particularly from the 1980s.[6] The percentage of population below poverty line in Andhra Pradesh is the second lowest among major states in India after Punjab. This arguably has been attained not by a substantial increase in the per capita income of the people but through generous subsidies provided by the government in raising the standard of living of the people. Table 6 gives the population below poverty line in the state for different periods.

Rural poverty has declined dramatically and is now close to the Punjab figure of 11.95 per cent which is the lowest in India. The reduction in poverty in Andhra Pradesh has been attributed mainly to various poverty alleviation measures undertaken by the government. One of the important measures in tackling poverty has been the vigorous public distribution system (PDS) for foodgrains. The subsidised rice scheme at Rs 2 per kilo has been in existence in the state since 1983 [Indrakant 1996]. The price was increased to Rs 3.50 in August 1996. This scheme is covering nearly 70 per cent of the population in the state [Radhakrishana et al 1997]. In the rural areas, the coverage is as high as 80 per cent of the total population. Another programme which integrates supplementary nutrition with primary health care and informal education is the Integrated Child Development Services (ICDS). It tries to help the pre-school children and pregnant mothers with supplementary nutrition through a network of anganwadi.

Andhra Pradesh is also spending a substantial amount of money on several other poverty alleviation programmes. The data on money spent on PDS and ICDS and also on all the poverty alleviation programmes (PAP) are presented in Table 7.

Significant difference can be noted in the public spending on poverty alleviation programme between Andhra Pradesh and two other states. On a per capita basis, Andhra Pradesh spent almost double the money spent by Karnataka and Uttar Pradesh. The total money spent on food subsidy and ICDS are significantly higher in Andhra Pradesh. The state contribution in PAPs in the state is nearly 41 per cent, while it has been 21 per cent in Karnataka and 28 per cent in Uttar Pradesh.

All these indicate that the state was able to enhance the standard of living of the people by generous schemes. Studies conducted on the ICDS schemes report that the beneficiaries of the scheme in the state mainly belong to the economically

Table 6: Percentage of Population below Poverty Line, Andhra Pradesh

Year	Percentage below Poverty Line		
	Rural	Urban	Total
1973-74	48.41	50.61	48.86
1977-78	38.11	43 55	39.31
1983	26.53	36 30	28.91
1987-88	20.92	40.11	25 86
1993-94	15 92	38.33	22 19

Source: Government of India (1997)

Table 5: Per Cent Distribution of Live Births Four Years Preceding the Survey by Sources of Antenatal Care during Pregnancy by Selected Characteristics, Andhra Pradesh, 1992

	ANC at Home from Health Worker	Doctor	Other Health Professional	No ANC
Residence				
Rural	24.8	55 3	4.3	14 1
Urban	5.3	81.6	3.1	6.6
Education				
Illiterate	25.0	53.0	4.0	16 4
Literate, < middle complete	14.2	77.5	2.9	3 9
Middle school complete	9.4	82.0	5 8	2 2
High school and above	3.5	90.5	1 0	1.0
Religion				
Hindu	20 5	60.6	4.3	12.4
Muslims	13.3	74.0	2 2	7.2
Christian	28.6	55.1	2 0	14.3
Caste/tribe				
Scheduled caste	24 1	56.1	5.4	11.5
Scheduled tribe	29.8	29.8	2.4	35.5
Other	18.3	65.7	3.9	10.4
Total	20.0	61.9	4.0	12.2

Note: ANC = antenatal care. ANC accepted from traditional health attendant and missing cases are omitted. Hence, the percentages will not add up to 100.

Source: National Family Health Survey, Andhra Pradesh, 1992.

and socially weaker sections of the rural society like scheduled caste and scheduled tribe population [Radhakrishna et al 1997].

The standard of living of the people in rural areas is also determined by the employment opportunities and the wage rate. As a majority of the poor in the rural areas have only their labour power to sell, the number of days of employment and the wage rate ultimately determine their standard of living. Hence, the changes that are taking place in the labour market are crucial for the rural population. The nexus between poverty and unemployment was explicit in Andhra Pradesh, as shown by the data from the earlier rounds of the National Sample Survey Organisation (NSSO) [Parthasarathy and Jayashree 1995]. However, this relationship has weakened in the 1980s probably because of the public intervention programme in employment [Parthasarathy and Jayashree 1995]. The percentage of unemployed in the rural areas of the state for various years is presented in Table 8.

There is no doubt that there has been a significant reduction in the rural unemployment in the state particularly among females.[7] The female unemployment rate has declined consistently since 1972-73. The male rate has also come down to a low level by 1987-88, has registered a slight increase by 1993-94. However, this unemployment rate is higher than that recorded for all-India, although the rate is declining at a faster rate in the state than in all-India. It may be recalled in this context that the state also has one of the highest female work participation rates among the major states in India in 1991. The male participation rate is also high in the state.

Not only has the unemployment rate come down, but the wage rate of agricultural labourers has also shown a considerable increase in the 1980s.[8] The wage rate of agricultural labourers was Rs 5.9 and Rs 4.6 for males and females respectively in the state in 1980. This has gone up to Rs 23.9 Rs 17.8 for males and females by 1992. The real wage rate also indicated an increase from 0.9 to 1.4 among males and 0.6 to 1.1 among females between 1974-85 and 1987-88 at 1960-61 prices [Unni 1997]. However, Parthasarathy (1996) observed that during the 1990s the rising trend in real agricultural wages is not sustained. The wage rate of agricultural labourers varied considerably between the coastal districts and the dryland areas of Telengana districts in the first half of the 1980s. Thereafter, the gap has slowly narrowed to a considerable extent. The wage rate in coastal districts is Rs 25.6 and Rs 18.2 for male and females respectively while in Telengana it was Rs 23.5 and Rs 17.6 for males and females in 1992. This indicates a homogenisation of agricultural wages in these two regions.

Another interesting development in the labour market is the migration of labour to high growth areas and urban centres particularly in the 1980s. It is also argued that the living conditions of the rural labour households has gone up due to the remittances from these destinations [Krishnaiah 1997]. The homogenisation of the wage rate would also be the result of this migration of labourers.

All these suggest that substantial changes were occurring in the economic life of the rural people in the state in the 1980s. This would have been facilitated by several factors like the subsidised rice scheme for the poor, a large amount of money set apart for poverty alleviation programmes by the state, increasing rate of work participation, particularly of females and higher wage rates. All these developments could have increased the real income of the rural households.

The important question, nevertheless, would be how far the rising living standards have influenced the familial decision making especially on the choice of the number of children. Could these factors have generated an environment of livelihood security, so that the role of children as a source of income security become less important?

Statistical Analysis

Finally, to test the validity of some of the above arguments a logit analysis is carried out using household level data from the NFHS. The dependent variable selected for the logit analysis is ever use of any modern contraception. The analysis is also done for coastal Andhra and other regions (Telengana and Rayalaseema) separately.

Several independent variables are considered for the analysis. Age of the mother is included in the model as a squared term to account for any non-linear relationship between age and family planning acceptance. As family planning acceptance is also a function of number of male and female children ever born and dead, these are also entered into the equation. A square term is also introduced for all these variables. The number of children lost by the mother is the only health indicator in the model. Sociocultural variables like literacy of mother, literacy of father, caste and community are included as dummy variables. The effects of mass media are also sought to be captured by a dummy variable giving the exposure to any mass media, radio or television, in the past two weeks preceding the survey or visits to cinema in the past one month preceding the survey. Asset holding of the household would signify the economic standard of living of the household. Further, the work participation of women is included to know the effects of women's outside work on contraceptive use. Type of residence will show the impact of rural or urban residence on fertility. Table 9 gives the results of logit analysis on ever use of modern contraception in different regions of Andhra Pradesh.

The variables such as age, male children born and died, female children born and

Table 8: Percentage of Unemployed by Sex for Various Years, Andhra Pradesh, Rural (Current Daily Status)

Year	Male	Female	Total
1972-73	8.1	16.4	11.2
1983	7.9	10.5	10.0
1987-88	4.9	9.4	6.7
1993-94	5.9	7.0	6.3

Source: National Sample Survey Organisation, various years.

Table 7: Public Spending on Major Poverty Alleviation Programme in Three States, 1993-94 (*Rupees in million*)

	Andhra Pradesh	Karnataka	Uttar Pradesh
Food Subsidy	8273	2445	2153
Centre	4193	1995	1653
State	4080	450	500
ICDS	625	393	336
Centre	464	352	-
State	161	41	336
Major PAPs	13317	5235	12549
Centre	7930 (59.5)	4144 (79.2)	9095 (72.5)
State	5387 (40.5)	1091 (20.8)	3454 (27.5)
Major PAPs (per capita spending)	200.2	116.4	90.2
Centre	119.2	92.1	65.4
State	81.0	24.3	24.8

Notes: PAP = Poverty Alleviation Programme. Percentage in parentheses.
Source: Radhakrishna et al (1997).

died show a significant relationship with ever use of modern contraception. Surprisingly, neither literacy of mother or father show any significant relationship with family planning acceptance in the coastal Andhra region. Instead mass media exposure and asset holdings become two important variable that determine family planning acceptance in this region. Mass media, however, is insignificant in the case of Telengana-Rayalaseema region. In this region, work participation of women comes out as a strong variable that explains the use of contraception. Scheduled caste and scheduled tribe population seem to have lesser contraceptive use. Community (represented by the dummy 'Muslim') have significant impact on the contraceptive use only in the Telengana and Rayalaseema region.

On the whole, the logit carried out have indicated some very interesting patterns and also a certain inherent puzzle. Coastal Andhra region invariably shows that fertility decline is taking place even among the illiterate sections of the society. Whether mass media exposure is a substitute for literacy in this region is something which may need further probing. Another possible explanation for the fertility decline in the coastal Andhra may be in terms of the geographical diffusion which is observed in the entire coastal belt. However, without explaining how exactly diffusion has been taking place, citing it as a possible explanation for something which has already happened (the fertility decline), is not very useful.

In the Telengana-Rayalaseema region, on the other hand, mass media do not play any crucial role. In this region, variables like work participation of women in outside work have a strong correlation with both children ever born and family planning acceptance. The inherent paradox cannot be resolved easily. However, it is thought that the outside work of women not only provides additional income to the poor household but also exposes them, to some extent, to the outside world. Especially in a place like Telengana where the organisation of labour has a long and rich history of struggle and bringing about some changes, outside work of women possibly gives them better awareness than what mass media may provide. So work participation of women should not be taken as such but needs to be given emphasis in the context of a higher level of organisation of labour. James (1997) observed a similar experience in the case of agricultural labourers of Kerala. However, the reasons as to why work participation is not important in coastal Andhra region while being important in Telengana-Rayalaseema region in explaining the fertility variation needs further probing.

Conclusion

The southern states in India, on the whole, are undergoing a fertility transition. Of these Kerala and Tamil Nadu have already attained a replacement level fertility. The dramatic fertility decline in Andhra Pradesh shows that the state will follow the other two soon. This study has mainly attempted to depict the fertility decline in Andhra Pradesh and to bring out certain plausible explanations.

Fertility has been declining at a slow pace in Andhra Pradesh for at least two decades. However, a considerable decline in TFR is noted from the mid-1980s, after a stagnancy in the early 1980s. The neighbouring state Tamil Nadu, however, had a significant decline in fertility from the early 1980s onwards. The rate of decline as between Tamil Nadu and Andhra Pradesh was not widely different over the last two or three decades. However, the initial level of fertility in Tamil Nadu was much lower than in Andhra Pradesh and hence the magnitude of difference in total fertility rate still persists between these two states.

Another important aspect of fertility in Andhra Pradesh has been the similar pace of decline observed between rural and urban areas. The current fertility levels among different educational categories, religious groups and caste groups clearly indicate that fertility has substantially declined in all these groups. The difference in fertility between two prominent religious groups, Hindus and Muslims is negligible in the state. This is also observed in the case of family planning acceptance.

Spatial difference in fertility, however, still persist in the state, and the coastal districts and the Rayalaseema region have lower levels of fertility than the Telengana region. It may also be noted that the Telengana region, which was part of the old princely state of Hyderabad, was one of the least developed regions in the country. However, a fertility decline has occurred even in the Telengana region.

This study has also attempted to identify the factors responsible for the dramatic fertility decline in Andhra Pradesh. The discussion on the causes of fertility decline

TABLE 9: RESULTS OF LOGIT ANALYSIS ON EVER USE OF MODERN METHOD OF CONTRACEPTION IN DIFFERENT REGIONS OF ANDHRA PRADESH, 1992

	Coastal Andhra		Telengana and Rayalaseema		Total	
Variables	B	SE	B	SE	B	SE
Age	415**	055	.418**	.049	424**	036
Age squared	- 006**	.001	- 006**	001	006**	001
Male child ever born	1 620**	132	1 518**	117	1 493**	085
Male child squared	-.188**	.031	- 200**	024	- 194**	018
Female child ever born	1 734**	130	1 109**	108	1 317**	082
Female child squared	-.268**	028	- 164**	022	201**	017
Male child dead	- 767**	139	- 616**	113	- 598**	.085
Female child dead	- 669**	149	- 288*	117	- 442**	.090
Literate women	316	175	716**	155	613**	113
Literate Husband	.315	152	.594**	129	.452**	.096
Caste	526**	.163	642**	137	583**	102
Muslim	-- 536	231	- 677**	202	- 561**	.148
Media exposure	.434*	.147	.141	127	327**	094
Working mother	159	143	294*	122	184	091
Asset holding	141**	.040	.087*	033	073*	025
Type of residence	007	.160	061	145	057	104
(Constant)	-10 783**	.902	-11 242**	.803	10.979**	.585
Goodness of Fit:	1949 837		2433.652		4230 945	
Number of selected cases:	1899		2377		4276	
2 Log Likelihood	2618.2184		2244 900		5912 2183	

Notes ** significant at less than .001 level.
* significant at less than .01 level
Literate women 1=literate; 0=illiterate.
Literate Husband 1=literate; 0=illiterate.
Muslim 1=Muslims 0=others.
Working Women 1=working 0-not working
Caste 0=SC and ST 1=others.
Type of residence 1=urban 0=rural
Media exposure: 1 if exposed to radio or television two weeks prior to the survey or watch cinema one month preceding the survey, 0 if not exposed
Asset holding: Number of assets owned by the household out of the total number enquired in the list of durable in the NFHS.

in India are mainly confined to the experience of Kerala and Tamil Nadu. Based on the experience of Kerala, female literacy and health status of the people are considered as two influential variables in reducing fertility. However, the impact of female literacy appears to be rather weak in Andhra Pradesh. On the other hand, a significant progress is noted in the antenatal care of pregnant women.

The decline in fertility in Andhra Pradesh would have intensified due to the striking changes that are taking place in the rural economy, particularly in the 1980s. The state government introduced a vigorous public distribution for food by which nearly 80 per cent of the people in rural areas are given rice at a very cheap rate. There are also other schemes like ICDS, in which government was pumping sufficiently large amounts of money to enhance the standard of living of the people. With all these developments the population below poverty line has declined dramatically in the state since the 1980s.

Along with the poverty reduction, significant changes are also taking place in the labour market in the rural areas. The unemployment rate has come down substantially and the agricultural labour wage rate has gone up even in dryland regions like Telengana. Further, there is also large-scale migration of labour to urban centres and wetland regions where employment opportunities are higher.

All these changes, it is thought, would have helped to increase the standard of living of the rural people to some extent. However, whether the generous government intervention and increase in wage rate could create an environment of economic security whereby the role of children as economic security declined is a question which may need further probing. It is thought that some of these measures would have acted as a disincentive for having more children even in the rural context. To test the above argument a few regressions have been carried out at the district and the household level using NFHS data.

The household level analysis is carried out for coastal Andhra and Telengana-Rayalaseema region separately. This brought out a few interesting findings coupled with some paradoxes. In the coastal Andhra region, variables like literacy of mother or father do not seem to explain contraceptive use. The significant variables are: media exposure and asset holdings of the household. On the other hand, in the Telengana-Rayalaseema region, mass media exposure and asset holdings were insignificant but literacy of women, work participation outside home have emerged as significant variables in explaining family planning use.

Whether in the coastal Andhra region mass media and some of economic prosperity could have replaced literacy levels of women in promoting fertility reduction cannot be conclusively shown. However, it seems that mass media have played a role in the fertility reduction in these region. Why only in the Telengana-Rayalaseema region, does work participation of women come out as a significant fertility reducing variable? Although it is difficult to give a final answer to this question, it is thought that a region which has rich history of labour organisation and struggle, outside work of women not only provides additional income to the poor household but also expose them, to some extent, to the outside world and gives them a better awareness than possibly a medium like mass media.

Hence, in a nutshell, it is possible that the generous welfare measures undertaken by the government of Andhra Pradesh in poverty alleviation particularly in the 1980s have not only reduced poverty but also have had some impact on the fertility decisions of the people. This, along with the changes in the rural labour market, labour organisation, and other related factors could have created a favourable climate for a decline in fertility, even with a low level of social development.

Notes

[A more detailed version of this paper was presented at a Workshop on 'South Indian Fertility Transition in Comparative Perspective' at Centre for Development Studies (CDS), Trivandrum during April 6-8, 1998. This paper owes a great deal to N Krishnaji's inspiration and extensive comments. I have greatly benefited from the comments during the Workshops at CDS, Trivandrum and also from a seminar at Centre for Economic and Social studies, Hyderabad. I also gratefully acknowledge the critical comments and suggestions made by C H Hanumantha Rao, P Venkatramaiah and Kanakalatha Mukund in an earlier version of this paper.]

1 David Levine considered transition from a regime of high fertility to another in which

human reproduction is controlled as a family revolution. David Levine (1987) *Reproducing Families: The Political Economy of English Population History*, Cambridge University Press, Cambridge, p 1.

2 This argument is put forward by Levine (1987) based on the experience of England in the past century

3 The demographic transition theory is that fertility decline basically occurred in places that moved from a traditional agrarian based economic system to a largely industrial, urban based one. See Notestien (1945).

4 This argument goes in line with Mencher's observation of poverty induced fertility transition among agricultural labourers of Kerala [Mencher 1980].

5 There also other explanations on the fertility decline in India which are not considered here. See Murthi et al (1995), Dharmalingam and Morgan (1996).

6 The percentage of population below poverty line varies considering using different sources. The trend, however, is one of considerable decline irrespective of the source

7 Current daily status is the most comprehensive measure as it combines chronic, seasonal and intermittent unemployment.

8 The increase in the agricultural real wage rate in the 1980s is observed even in other states in India [Unni 1997]

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Theory of Convergence and Real Income Divergence 1950-92

Prabirjit Sarkar

This article examines the issue of convergence of the standards of living of the North and the South at the aggregative average and the disaggregative country levels on the basis of internationally and inter-temporally comparable real income data available in Penn World Tables over the period 1950-92. It finds significant evidence of widening gap in the standards of living of the two groups of countries. Only countries such as Korea, Taiwan and Thailand experienced a converging trend. There is some evidence of convergence between less rich North and richer North and between poorer South and less poor South.

THIS article examines whether the poor South is coming closer to the rich North in the process of evolution of the world economy since 1950 – whether the Veblen (1915)-Gerschenkron (1952) convergence/catching up hypothesis holds good along with the convergence implication of the neoclassical growth theory.[1] The issue of convergence of the standards of living of the North and the South is examined at the aggregative average and the disaggregative country levels. To make an inter-temporal international comparison of standards of living, the Penn World Tables (PWT) available through the World Wide Web [see Summers and Heston 1984, 1991 for details of the data source and methodology of construction of the series] are generally used. The PWT displays a set of national accounts time series data covering a large number of countries. 'Its unique feature is that its expenditure entries are denominated in a common set of prices in a common currency so that *real* international quantity comparison can be made both between countries and over time' [Summers and Heston 1991:327].

For measuring the standard of living, a number of PWT series are available on real GDP per capita at constant dollar. We have used the series called RGDPT, real GDP per capita in constant dollar adjusted for changes in the terms of trade. The series uses 1985 international prices for aggregating domestic absorption and current prices for exports and imports to allow for changes in the terms of trade to influence real income.

The PWT data are available over the period. 1950-92. Hence this is our period of study. But the real income data are not available for many countries for all the years. Hence a sample of 64 countries is chosen on the criterion that the relevant data are available at least for the period 1955-86. But data beyond this period are available for most of the 64 countries.

North-South Divergence

Out of the 64 countries, 26 countries belong to the UN category, 'developed market economy' (we shall call it 'Rich' or 'North') and the other 38 countries belong to the category, 'developing market economy' (we shall call it 'Poor' or 'South') – the categories often used in the presentation of UN data.[2]

To examine the question of convergence between poor and rich countries, a cross-country regression, named 'Barro regression', is often fitted:

$$RGPCI_{ti} = a + b.\log(PCI_{0i}) \qquad ...(1)$$

where $RGPCI_{ti}$ is the rate of growth in real income per capita of the i-th country in period t and PCI_{0i} is the level of real income per capita of the i-th country in the initial year.

A positive (and statistically significant) estimate of the regression coefficient, b, found in many studies [Baumol and Wolff 1988; Barro 1991; Mankiw et al 1992; Barro and Sala-i-Martin 1995], is taken as evidence of divergence, called beta-divergence [Sala-i-Martin 1996]: the richer a country is in the initial year (as measured by the initial level of per capita real income), the higher is its rate of growth and vice versa.

An alternative procedure of measuring divergence (called sigma-divergence) is to calculate the coefficient of variation of real income per capita of the whole sample in each year and examine its trend behaviour. There is some evidence of divergence in this measure too [Sala-i-Martin 1996].

In the context of a study of convergence between the poor countries as a group ('South') and the rich countries as a group ('North'), the two procedures may give misleading result. Beta- and/or sigma-divergence found in a study may well be due to divergence across the individual countries belonging to the group. Poor

Table 1: North–South Convergence of Real Income Per Capita, 1950-92

	Regression Coefficients[1]				
	1950s	1960s	1970s	1980s	1950-92
North[2] vs All South[3]	0.02	0.02	–0.01	0.01	0.01
	(9.04)	(18.33)	(–2.26)	(2.07)	(2.45)
Egypt	0.03	0.01	–0.01	0.01	0.01
	(5.70)	(2.16)	(–1.75)	(0.64)	(1.66)
Ethiopia	0.03	0.03	0.02	0.02	0.02
1950–86	(7.11)	(9.89)	(5.86)	(3.40)	(12.20)
Kenya	0.03	0.03	–0.005	0.02	0.02
	(5.10)	(6.81)	(–0.69)	(6 .07)	(9.87)
Morocco	0.04	0.01	–0.02	0.006	0.005
	(9.81)	(1.05)	(–3.84)	(2.13)	(1.92)
Nigeria	0.01	0.06	–0.06	0.10	0.01
	(3.06)	(5.36)	(–5.40)	(11.24)	(0.83)
Uganda	0.04	0.04	0.05	–0.01	0.04
	(7.97)	(15.26)	(6.24)	(–0.53)	(15.97)
Zaire	0.03	0.02	0.06	0.03	0.03
1950–89	(5.95)	(2.40)	(7.92)	(8.06)	(5.99)
Costa Rica	–0.002	0.02	–0.01	0.02	0.01
	(–0.28)	(6.94)	(–3.44)	(4.25)	(8.60)
Dominican Republic	0.02	0.03	–0.01	0.01	0.01
	(3.10)	(3.10)	(–1.17)	(1.98)	(3.91)
El Salvador	0.02	0.02	–0.01	·0.03	0.02
	(3.68)	(3.44)	(–2.44)	(7.44)	(15.56)

(Contd)

TABLE 1: NORTH-SOUTH CONVERGENCE OF REAL INCOME PER CAPITA, 1950-1992 (Contd)

	Regression Coefficients[1]				
	1950s	1960s	1970s	1980s	1950-92
Guatemala	0.03	0.03	–0.007	0.04	0.02
	(8.34)	(20.58)	(–1.88)	(8.83)	(10.61)
Honduras	0.03	0.03	–0.004	0.03	0.02
	(9.73)	(15.46)	(–0.61)	(7.96)	(10.02)
Mexico	0.01	0.01	–0.01	0.04	0.005
	(3.51)	(5.34)	(–4.37)	(8.65)	(2.50)
Nicaragua	0.006	0.01	0.03	0.06	0.03
1950–91	(0.75)	(0.82)	(1.80)	(3.05)	(4.58)
Panama	0.02	–0.001	0.02	0.04	0.01
	(4.87)	(–0.36)	(4.14)	(3.85)	(3.10)
Trinidad	–0.03	–0.04	–0.05	0.08	0.01
	(–6.44)	(6.47)	(–10.19)	(9.12)	(1.01)
Argentina	0.03	0.03	0.01	0.04	0.02
	(5.16)	(6.46)	(4.39)	(9.24)	(13.38)
Bolivia	0.06	0.01	–0.002	0.05	0.02
	(9.49)	(3.61)	(–0.85)	(20.01)	(6.35)
Brazil	0.003	0.03	–0.04	0.02	0.003
	(1.05)	(8.45)	(–7.20)	(3.71)	(0.84)
Chile	0.02	0.02	0.04	0.01	0.02
	(6.38)	(9.32)	(3.84)	(1.34)	(5.22)
Colombia	0.03	0.03	–0.01	0.01	0.01
	(5.75)	(17.64)	(–15.45)	(8.60)	(3.53)
Ecuador	0.02	0.02	–0.05	0.05	0.01
	(5.36)	(4.70)	(–7.78)	(18.58)	(2.46)
Guyana	0.04	0.03	0.001	0.07	0.04
1950–90	(10.66)	(4.29)	(0.03)	(4.96)	(8.12)
Paraguay	0.04	0.03	–0.03	0.06	0.02
	(7.84)	(36.20)	(–4.46)	(11.22)	(3.30)
Peru	0.02	0.01	0.01	0.04	0.02
	(5.56)	(1.85)	(1.98)	(5.93)	(7.19)
Uruguay	0.03	0.06	0.01	0.02	0.02
	(3.46)	(52.54)	(2.33)	(2.31)	(5.81)
Venezuela	–0.003	0.04	–0.03	0.05	0.02
	(–0.70)	(12.41)	(–4.66)	(15.44)	(5.72)
India	0.01	0.06	0.01	–0.02	0.01
	(7.18)	(7.27)	(2.27)	(–7.76)	(2.67)
Jordan	–0.07	0.01	–0.05	0.03	–0.01
1954–90	(–39.88)	(1.21)	(–4.79)	(3.10)	(–2.06)
Korea	0.01	–0.01	–0.06	–0.06	–0.03
1953–91	(2.67)	(–1.35)	(–16.97)	(–41.66)	(–3.46)
Malaysia	0.03	0.03	–0.03	0.02	–0.01
	(2.26)	(10.81)	(–9.16)	(2.60)	(–2.18)
Myanmar	0.02	0.03	0.01	0.02	0.01
	(2.89)	(2.51)	(0.82)	(1.70)	(2.90)
Pakistan	0.05	–0.001	0.02	–0.005	0.01
	(14.42)	(–0.20)	(1.89)	(–2.69)	(3.17)
Philippines	0.00	0.03	–0.01	0.04	0.01
	(0.14)	(15.18)	(–8.86)	(7.77)	(9.59)
Sri Lanka	0.03	0.05	–0.01	–0.002	0.01
	(8.06)	(17.29)	(–1.03)	(–0.17)	(2.52)
Taiwan	–0.006	–0.01	–0.05	–0.05	–0.03
1951–90	(–0.14)	(–3.51)	(–22.22)	(–17.40)	(–5.57)
Thailand	0.04	0.001	–0.02	–0.02	–0.01
	(4.51)	(0.42)	(–4.38)	(–4.69)	(–1.05)
Turkey	–0.01	0.02	–0.02	–0.005	0.004
	(–0.73)	(14.24)	(–2.92)	(2.27)	(–1.77)

Notes: 1 Regression coefficients are obtained by fitting the following equation: dlns = c + d.t where t is the time variable, dlns = log(average RGDPT of the North) – log (average RGDPT of the South or the RGDPTs of individual countries of the South). To cure the problem of autocorrelation, an appropriate AR process is chosen in each case. To save space, estimates of only 'd' and the t-ratios (given in parentheses) are reported.

2 Following 26 countries are considered in the sample, 'North': Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, the UK, Australia, New Zeeland, South Africa, Canada, the US, Japan, Israel.

3 Following 38 countries are considered in the sample, 'South': Egypt, Ethiopia, Kenya, Morocco, Nigeria, Uganda, Zaire, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Trinidad and Tobago, Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Uruguay, Venezuela, India, Jordan, Korea, Malaysia, Myanmar, Pakistan, Philippines, Sri Lanka, Taiwan, Thailand and Turkey.

(South)[3] and/or across the countries belonging to the group, Rich (North).

To address the question of Rich-Poor or North-South divergence, intra-group divergence is netted out by aggregation and average real income per capita is calculated: the RGDPT figure of each country belonging to a group is multiplied by its population figure (also available in PWT) to get its total real income, TRGDPT in a particular year. The group total of TRGDPT is divided by the group total population figure to arrive at the figure of average RGDPT of each group. A time trend is fitted to the log-difference between the average RGDPTs of the North and the South over different periods between 1950 and 1992:

$$\text{dlns} = c + d.t \qquad ...(2)$$

where t is the time variable and dlns = log(average RGDPT of the North) – log (average RGDPT of the South).

The estimates are reported in Table 1: In all the decades excepting the 1970s, the estimated time coefficients are positive and statistically significant. This implies that the per capita real income of the South grew at a lower rate than the North and so the initial North-South gap in real income per capita widened over time. Hence the overall picture for the period, 1950-92, is one of significant divergence.

Adding intercept and slope dummies for the 1970s to the regression equation (2), and fitting the equation over the whole period, 1950-92, it is observed that the decade of the 1970s is no exception (none of the dummies is statistically significant):

$$\begin{aligned}\text{dlns} &= \underset{(15.30)}{1.24} + \underset{(2.43)}{0.0067t} - \underset{(-0.44)}{0.05D70} \\ &\quad + \underset{(0.56)}{0.0025SD70} \qquad ...(3)\end{aligned}$$

where D70 and SD70 are the intercept and slope dummies for the 1970s, R-bar square= 0.92, Durbin-Watson Statistic=1.85 and F = 138.27 (t-ratios in parentheses). Here an AR(1) process is fitted through the maximum likelihood procedure.

In the next stage, a quadratic trend is fitted:

$$\text{dlns} = c + d.t + e.t^2 \qquad ...(4)$$

This is to examine whether there is any acceleration or deceleration in the force of widening North-South gap in real income per capita over time. The estimated equation is

$$\text{dlns} = \underset{(32.71)}{1.14} + \underset{(7.18)}{0.026t} - \underset{(-5.46)}{0.00043t^2} \qquad ...(5)$$

where R-bar square= 0.94, Durbin-Watson Statistic=1.89, and F = 238.35 (t-ratios in parentheses).

Equation (5) indicates a deceleration in the force of divergence: the point of inflexion ($t^* = d/2e$) at which the North-South gap is maximum should be 1979. After this point of inflexion, since 1980, the gap should show a tendency to narrow. But this was not the case; rather it is observed that in the 1980s the gap showed a tendency to widen.

There is not much to choose between the log-linear and quadratic equations since the values of R-bar square for the two regression equations are more or less the same.

To examine the individual country cases the log-difference between the RGDPTs of the North as a group and each of the southern countries is regressed on time. Estimates are also reported in Table 1. These show that out of the 38 countries of the south, only 10 countries did not show any significant evidence of divergence away from the standard of living of the North (as measured by the real income per capita figures, RGDPTs). Out of these 10 countries, Morocco exhibited a weak evidence of divergence (time-coefficient is significant at 6 per cent level); in the cases of other four countries (Egypt, Nigeria, Trinidad and Brazil), the time-coefficients are positive but insignificant. Only five countries (Jordan, Korea, Malaysia, Taiwan and Thailand) showed an evidence of convergence or catching up with the North. Excepting Jordan, all the converging countries belong to the category, 'major exporters of manufactures' (of the South) according to UNCTAD (1994).

The convergence experience of Jordan was interrupted in the 1960s and turned into a divergence experience in the 1980s. The convergence experience of Korea and Thailand become significant only in the last two decades, the 1970s and the 1980s while Taiwan had a similar experience since the 1960s. The convergence experience of Malaysia was limited to the 1970s. This is also the case for Morocco, Nigeria and Brazil. In all other decades, these countries experienced significant divergence. Egypt experienced significant divergence in the 1950s and the 1960s and neither convergence nor divergence in the next two decades while Trinidad experienced significant convergence in the 1950s and the 1970s and divergence in the 1960s and the 1980s.

Out of the 28 countries experiencing divergence over the whole period of study, nine countries experienced some kind of convergence towards the standard of living of the North (as measured by the RGDPTs) in the 1970s: Costa Rica, El Salvador, Mexico, Colombia, Ecuador, Paraguay, Venezuela, Philippines and Turkey. Many other countries experienced neither convergence nor divergence during the 1970s. Hence at an aggregative level, there is some evidence of convergence between the standards of living of the North and the South in the 1970s, although this is not confirmed by the dummy variable analysis, as indicated by the estimated regression equation (3).

The decade of the 1970s is one marked by the rise of OPEC and the call for the new international economic order(NIEO). As noted above, most of the southern countries covered in our study did not face divergence in this decade and many even experienced convergence. Not all of them are petroleum exporters. The high expectation of the 1970s was short-lived and the next decade experienced an unprecedented debt crisis when many southern countries

TABLE 2: CONVERGENCE OF REAL INCOME PER CAPITA WITHIN THE NORTH

Period/Countries	Estimates[1] c (t-ratio)	d (t-ratio)	Adj R Sq	F-Statistic	Durbin-Watson Statistic
Rich North (North-1)[2] vs Poor North (North-2)					
1950s	0.86	−0.03	0.99	643.20	2.05
	(127.88)	(−25.36)			
1960s	0.82	−0.03	0.96	208.41	1.31
	(30.34)	(−14.44)			
1970s	0.33	−0.003	0.61	15.10	2.18
	(18.38)	(−3.89)			
1980s	0.03	−0.007	0.73	25.43	1.62
	(0.59)	(5.04)			
1950-92	0.80	−0.02	0.95	1312.3	2.11
	(8.19)	(−4.84)			
North-1 vs Different Countries of North-2					
Cyprus	1.39	-0.02	0.92	153.45	1.91
	(30.87)	(−10.21)			
Israel	1.00	-0.02	0.95	275.85	2.00
1953-92	(9.98)	(−4 46)			
Japan	1.39	−0.04	0.99	3791.7	2.04
	(8.85)	(−6.74)			
Austria	0.69	-0.02	0.98	882.90	1.76
	(8.58)	(−5.48)			
Belgium	0.34	−0.01	0.94	349.40	1.94
	(9.91)	(−5.08)			
Finland	0.49	-0.01	0.92	171.99	1.82
	(19.49)	(−10.72)			
France	0.38	-0.01	0.98	824.67	1.69
	(6.05)	(−4.40)			
Germany	0.49	−0.01	0.98	585.86	1 92
	(4.43)	(−3.93)			
Greece	1.43	−0.02	0.99	1395.4	1.67
	(13.11)	(−5.07)			
Iceland	0.59	−0.01	0.94	205.76	1.75
	(15.38)	(−8.96)			
Ireland	0.89	−0.009	0.97	393.75	2.00
	(35.70)	(−9.10)			
Italy	0.74	−0.02	0.98	1222.4	1 64
	(10.79)	(−6.76)			
Netherlands	0 27	−0.0043	0.93	183.85	1.78
	(5.65)	(-2.36)			
Norway	0.38	−0.0080	0.96	337.63	1.89
	(9.41)	(−5.10)			
Portugal	1.60	−0.02	0.98	536.26	1.91
1950-90	(25.46)	(−8.76)			
Spain	1.10	−0.02	0.97	590.35	1.92
	(9.84)	(−4.85)			
South Africa	1 09	0.0095	0.51	220.05	1.50
	(12.82)	(3.19)			

Notes: 1 Estimates are obtained by fitting the following regression:

$dln1n2 = c + d.t$

where $dln1n2$ = log(RGDPT of North-1) − log (RGDPT of North-2 or different countries of North-2). To cure the problem of autocorrelation, an appropriate AR process is chosen. The figures in parentheses are t-ratios.

2 Nine countries of the North with 1950-RGDPT > $5000 constitute North-1: the US, Canada, Australia, New Zealand, Denmark, Sweden, Switzerland, the UK and Luxembourg. All other countries of the North belong to North-2 (for a list of countries belong to North, see Table 1, note 2).

suffered an economic setback. Hence the countries were back to the course of divergence *vis-a-vis* the North.

Convergence within North

To examine the issue of convergence within the north, the countries in the North are divided into two sub-groups on the basis of 1950-RGDPT (for Israel 1953 – figure is considered due to lack of data):
North-1: 1950-RGDPT>$5,000 nine countries.
North-2: 1950–RGDPT<$5,000 17 countries.

Following the procedure described earlier (using population figures), average RGDPTs of the two groups are calculated over the whole period of our study. The log-difference of the two series on average RGDPTs (=dln1n2) is regressed on time over different periods between 1950 and 1992. It shows that in all the decades since 1950, the gap in RGDPTs between the two sub-groups showed a strong tendency to decline (Table 2). But the force of convergence seemed to have weakened in the 1970s and the 1980s. This is confirmed by estimating the quadratic trend equation.

$$\mathrm{dln1n2} = 0.88 - 0.04\,t + 0.00040\,t^2 \quad \ldots(6)$$
$$(22.95)\ (-8.99)\quad (5.63)$$

where R-bar square= 0.99, Durbin-Watson Statistic=2.04, and F = 1184.1 (t-ratios in parentheses).

An AR(2) process is fitted through the maximum likelihood procedure.The estimated equation (6) shows that the gap between the RGDPTs of North-1 and North-2 reaches its minimum value around the year 1990 after which the gap is expected to increase.

At a disaggregative level, it is observed that excepting South Africa, all the countries of North-2 experienced convergence. South Africa, on the contrary, experienced divergence (Table 2). The poorest North-2 country is Portugal with 1950-RGDPT figure as low as $1240. This country also experienced convergence with North-1.

Convergence within South

Let us now examine convergence within the South. There are altogether 17 countries in the South with 1950-RGDPT greater than that of the poorest North-2 country, Portugal. Call this group as rich South or South-1 and the rest as poor South or South 2. It is interesting to examine whether these countries shared the convergence experience of Portugal. Excepting Mexico, none of these countries experienced convergence with North-1. Nine countries experienced strong divergence and seven countries faced neither convergence nor divergence (Table 3).

Through a cross-country study, Baumol and Wolff (1988) observed (on the basis of PWT data) that only the countries which were already rich in 1960 had been coming closer during the subsequent period. This pattern has been noted in many other studies [Sheehey 1996]. An explanation of this pattern can be found in Abramovitz (1986); he argued that the potential to realise the 'advantages of relative backwardness' depends on certain 'social capabilities' that vary positively with income. But the North-South divide remains important. Many southern countries of Latin America and Caribbean were richer than Portugal, Greece and Cyprus in 1950; some of them were richer than even Austria, Ireland and Italy. But they could not join the convergence club of rich North.

Lastly, the issue of convergence within the South is examined. Without dealing with individual country cases (to save space), convergence between the average RGDPTs of the two sub-groups of the South -South-1 and South-2 is considered over the whole period, 1950-92. The estimated equation is

$$\mathrm{dls1s2} = 1.23 - 0.0099\,t \quad \ldots(7)$$
$$(16.34)\ (-3.44)$$

where dls1s2 = log (average RGDPT of the South-1) – log (average RGDPT of the South-2), R-bar square= 0.94, Durbin-Watson Statistic = 1.81 and F = 215.52 (t-ratios in parentheses). An AR (2) process is fitted through the maximum likelihood procedure.

Equation (7) gives significant evidence of convergence in the standards of living of the two sub-groups of the South. In the earlier part of this study, strong evidence of convergence has been found between the two sub-groups of north. This supports the contention of Quah (1996) and

Table 3: Convergence of Real Income Per Capita between Rich North and Rich South, 1950-92

Countries	Estimates[1]				
	c (t-ratio)	d (t-ratio)	Adj R Sq	F-Statistic	Durbin-Watson Statistic
Rich North (North-1)[2] vs					
Costa Rica	1.30	0.001	0.84	72.76	1.99
	(16.27)	(0.46)			
El Salvador	1.45	0.01	0.97	429.44	2.01
	(16.65)	(4.49)			
Guatemala	1.32	0.01	0.97	519.66	2.19
	(21.48)	(5.15)			
Mexico	1.04	–0.005	0.84	93.40	1.87
	(18.26)	(-2.11)			
Panama	1.49	-0.001	0 76	67.95	1 57
	(14.17)	(–0.24)			
Trinidad	0.61	–0.004	0.81	86.35	1 76
1950-51	(3.22)	(–0.60)			
Argentina	0.34	0.02	0.91	207.90	1.95
1950-90	(3.72)	(4.65)			
Bolivia	1.62	0.01	0.91	210.61	1.71
	(15.15)	(3.36)			
Brazil	1.52	–0.006	0.93	273.06	1 48
	(13 68)	(–1.64)			
Chile	0.85	0.01	0.88	103.42	1.95
	(13.68)	(4.00)			
Colombia	1.46	0.001	0.79	81.05	1.9[illegible]
	(27.01)	(0.70)			
Ecuador	1.60	0.0003	0.86	88.45	2.10
	(14.99)	(0.07)			
Guyana	1.16	0.03	0.91	207.81	1.72
	(6.60)	(4.45)			
Paraguay	1.68	0.006	0.71	51.49	1.92
	(16.16)	(1.63)			
Peru	1.24	0.01	0.90	130 44	1.79
	(8.38)	(2.13)			
Uruguay	0.50	0.02	0.93	281.90	1.59
	(8.02)	(6.45)			
Venezuela	0.41	0.008	0.91	138.87	2.11
	(4.91)	(2.62)			

Note: 1 Estimates are obtained by fitting the following regression:
dln1s1 = c + d.t
where dln1s1 = log(RGDPT of North-1) – log(RGDPT of different countries of South with RGDPT > $1240). To cure the problem of autocorrelation, an appropriate AR process is chosen. The figures in parentheses are t-ratios.
2 For countries in North-1, see Table 2, note 2.

prediction of some theoretical growth models [Galor 1996]: existence of convergence clubs – one for the poor and the other for the rich.[4] In the process of growth during the post-second world war period, 1950-92, the poorer southern countries had been coming closer to the richer countries of the South in terms of standard of living. Similarly, the less rich northern countries are coming closer to the richer countries of the North. But the gap in the standards of living of the North and South has been widening during the same period.

Summary and Conclusions

The sample of 38 poor countries (called the South) studied here experienced a lower rate of growth in their average real income per capita (RGDPT) than what is experienced by the sample of 26 rich countries (called the North). Hence the gap in the standards of living between the two groups has been widening over the period of our study, 1950-92. Between 1950 and 1992, the RGDPT of the South increased almost threefold – from $1087 in 1950 to $3027. During the same period, the RGDPT of the North increased almost fourfold – from $3548 in 1950, to $13047.

There is some diversity in individual country experiences. But there is one experience shared by most of the southern countries in the decade 1970s which was marked by the rise of OPEC and the optimism of the new international economic order. This was a temporary relief from the trend of divergence from the better standard of living of the North. Some countries even experienced a significant tendency towards convergence/catching up. So the overall picture of the 1970s is one of a catching up trend.

Another notable thing in individual country cases is the steady catching up experience of Korea and Thailand since the 1970s and of Taiwan since the 1960s. These countries belong to the category, 'major exporters of manufactures' (of the South). This experience is not shared by other countries belonging to the same category, such as Brazil, Mexico and Turkey.

Countries of the North experienced convergence among themselves. Bottom 16 countries of the North (RGDPT < $5,000) experienced a catching up of the average standard of living of the top nine countries (RGDPT >$5,000). In 1950 the average RGDPT of the top nine was more than double the RGDPT of the bottom 16. From $2,662 in 1950, the average RGDPT of the bottom 16 increased more than fourfold to reach the figure $12,204 in 1992 while the average RGDPT of top nine grew less than three times from $6,193 in 1950 $14,814 in 1992. Thus the standards of living of the two sub-groups of the North came much closer.

While Portugal, the poorest of the northern countries in 1950, had been coming closer to the average standard of living of the top nine of the North during the period of study, the southern countries richer than Portugal in 1950, did not share this experience. Rather, these southern countries came closer to the poorer South.

While the gap in the standards of living of the North and the South had been widening during the period of our study, there is some evidence of deceleration in the pace of divergence. Hence there is some hope that the gap will not widen indefinitely.

At the same time, the pace of bridging the gap between the top nine and bottom 16 of the north showed some sign of deceleration. If this trend continues, the process of convergence may come to a halt and some gap will remain.

Notes

1 Some authors [see Barro 1991, Mankiw et al 1992, Barro and Sala-i-Martin 1995] argue that neo-classical growth theory does not have an 'absolute' convergence implication; it predicts 'conditional' convergence – the countries that are similar in all respects except for their initial level of output per capita are expected to converge to the same steady-state level of output per capita.

2 'Developed Market Economy' covers western Europe, the US, Canada, Australia, New Zealand, Israel, Japan, South Africa. All other countries excluding socialist and ex-socialist countries belong to 'Developing Market Economy'.

3 Sarkar (1998) found beta divergence among the countries of the South in a study based on UN data.

4 This contradicts my earlier study [Sarkar 1998] based on cross-country regression. A quadratic version of Barro regression was fitted to the North and the South and sub-groups were made on the basis of regression parameters. The linear version of Barro regression was fitted to each sub-group and there was no evidence of beta convergence within these sub-groups.

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Overcoming Barriers

A comparative study of the steel industry in three late industrialising countries, Korea, India and Brazil shows that state intervention does not guarantee technological progress and that the weak institutional basis of the state undermined the development of a technologically dynamic steel industry. M-2 In the context of the drastic change the global textile trading regime will undergo from 2005 with the phasing out of the MFA the nature of competition that Indian primary textile firms face domestically and abroad will change. A study of such firms in India, China and Canada. M-17 Deregulation of the coal sector by itself may not lead to accelerated investment, expansion in production and competitive market conditions resulting in cost and price efficiency. An attempt to outline an ideal regulatory mechanism based on the experiences of other economies affected by the process of liberalisation. M-25 While governments in developing countries are delimiting their roles in economic matters, developed countries are putting in place a number of support measures to encourage private sector to invest in R and D. M-34

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Panchayats and VAs

With the revitalisation of panchayat institutions voluntary organisations can play a crucial role as partners. 529

Remembering the *EW*

I BELIEVE one should not flaunt what one does out of conviction. There is a certain charm in keeping such acts as seductive secrets. I would not have deviated from this time-honoured code, but for the hesitantly raised question "should not one also mention Anand Chandavarkar, Vinoo Bhatt and Deena Khatkhate?" by Ashok Mitra in his article 'Fifty Years Ago' (January 9).

During the period 1956-68, a gang of four – Anand Chandavarkar, Vinoo Bhatt, M Narasimham and myself – regularly but anonymously wrote for the *EW* and its sequel, *EPW*, disregarding the risks involved. One of the four subsequently occupied all the important policy-making positions in the government and the Reserve Bank. There were weeks when two or three editorial notes were authored by us. At times we wrote notes on subjects on which we among ourselves disagreed so that the policies being commented on should generate public debate. Some of the leading controversies of the 1950s and 1960s, on planning, balance of payments, choice of techniques, inflation, etc, could be attributed to the clandestinely written articles by this group. The famous ones on planning by Vinoo Bhatt under the pseudonym Savyasachi and 'Aid and Advice' by Narasimham annoyed the government of India's economic advisers, who themselves were close to Sachin and the *EW* and *EPW*, to such an extent that one of them admonished Sachin for publishing "such trash". Sachin, as was his style, kept objectivity and dedication to truth as he saw it above friendship and simply laughed away these petulant reactions of his friends. Narasimham's piece, critical of the IMF and the World Bank, was taken so seriously that it has figured prominently in the World Bank's latest history written by John P Lewis and Devesh Kapur. Unlike several other anonymous writers for the *EW* and *EPW*, no one among the four RBI economists accepted payment. Once A Fernandes, Sachin's Man Friday, approached Vinoo Bhatt and me with cheques, but he promptly withdrew when he saw the frown on our faces. That was the period that was, with all the intellectual excitement, thrills and fun.

In late 1965 when the *EW* was in the doldrums with a grim future staring it in the face, Sachin was frantically looking for funds to set up a trust. Only about Rs 20,000 or thereabouts were in the kitty. It was at that moment that I raised 20,000-25,000 rupees, the major contributions being from Shapurji Pallonji, Khatau and Russi Karanjia of the *Blitz* and Narasimham, Bhatt and I chipping in with the rest.

My own introduction to Sachin and the *EW* was eventful, with a touch of drama and trauma. I had just joined the RBI. My first assignment was to prepare a research paper on measuring deficit financing in India. Vinoo Bhatt, thinking that the paper was well-suited for the *EW*, passed on a draft to Sachin who then asked me to prepare a version for publication. Being a brash young man and innocent of the ways of the world, I published a shorter version in the *EW*, unmindful of the consequences of my action. I got myself into immediate trouble when the RBI authorities noted the similarity in content between my internal RBI paper and the one published in the *EW*. I would have been fired but for the intervention of a compassionate soul. Sachin always carried a sense of guilt for unwittingly landing me in the soup. I clearly recall telling him that I was an adult and should take full responsibility for my action.

DEENA KHATKHATE

Mumbai

Half-Truths

I REFER to the letter written by Sukla Sen, P G Ram et al titled 'Savarkar Memorial' (December 26, 1998) which is full of many half-truths and is prejudiced and biased against Savarkar. Savarkar never preached fascism, to him anyone who had a 'sense of belonging' to India was a Hindu. But the so-called pseudo-secularists have themselves adopted the Goebbelsian technique of repeating tirelessly lies against anybody who propagated Hindu thought and philosophy.

It is difficult to contradict the statements and non-sequitur generalisations in the letter, as it has become fashionable to dub Hinduism as fascist and fundamentalist and guilty of aggression. Just one or two facts. It was not Savarkar alone who kept aloof from the 'Quit India movement'; eminent thinkers like M N Roy and C Rajagopalachari also did not support the 1942 movement. The Communist Party, for its own policy of supporting the Soviet Union, made a *volte face* and supported the British war effort. Subhash Bose fought for Indian independence according to his own lights.

In his Sardar Patel memorial lecture delivered on Akashwani, Delhi, in October 1998, the eminent scientist A P J Kalam raised the question as to why it is that in its over 2000 years' recorded history, India has never been known to have committed aggression and annexed any territory. It is so, he seemed to suggest, because of the basic Hindu (Indian) stance of non-aggression; this is the Hindu mind, which it has become fashionable to vilify. Hindus cannot be fundamentalist and aggressive in contrast to the Christian and Islamic philosophy of aggression and proselytisation. Will the letter-writers address themselves to the question raised by A P J Kalam and desist from the attempts to vilify Hindus?

The letter pours venom against Savarkar and the RSS, making baseless allegations, using the pejorative term 'fascists' again and again. This reflects small minds and prejudiced, frivolous outpourings, which fly in the face of historical facts and truths.

V S PATWARDHAN

Pune

ECONOMIC AND POLITICAL WEEKLY

A Budget of Small Things

AGAINST the background of the cacophony of noises on economic policy that had been emanating from the parties constituting the BJP-led ruling coalition and from organisations closely associated with the BJP itself, the central government's budget for 1999-2000 may be said to have come as a relief, if not exactly as a pleasant surprise.

The least convincing part of the budget is the finance minister's claim that he has "set in motion a medium-term strategy for restoring the fiscal health of our economy". The budget aims to reduce the revenue deficit by 0.7 per cent of GDP and the fiscal deficit by 0.6 per cent and it is the finance minister's hope that, at this rate, in four years the revenue deficit would have been eliminated and the fiscal deficit brought down below 2 per cent of GDP. However, it has been the staple story of the last many years that each year the actual revenue and fiscal deficits have significantly exceeded the budget's expectations. There is nothing about the quality of this budget's estimates of revenue and expenditure to inspire any particular confidence that the coming year is going to be an exception to this rule. Reduction of the revenue and fiscal deficits hinges critically on the government's ability to control its revenue expenditure which calls for much more than the symbolic abolition of the posts of four secretaries to the government. To carry the process further, the finance minister has promised to set up an Expenditure Reforms Commission. In fact he could have taken another look at that part of the last Pay Commission's report where it had proposed abolishing a significantly larger number of secretaries' positions and several ministries to reduce the total staff strength of the government by almost a third.

It is also difficult to be convinced that there is much in the budget which will set in motion a process of industrial revival. This is not to suggest that the finance minister should have attempted to use the budget to kick-start industry, as he had been so often urged from different quarters to do. In fact it is to be welcomed that he has resisted the temptation to show large increases in Plan expenditure as part of a proclaimed effort to boost economic growth. The simple fact is that year after year the concerned government departments and public sector undertakings have failed to fully spend the Plan allocations provided in the budget, including for the infrastructure sectors the need for larger outlays on which is universally accepted. Thus the shortfall in the centre's Plan outlay was Rs 9,568 crore in 1996-97, Rs 10,806 crore in 1997-98 and as much as Rs 16,705 crore in 1998-99. Clearly, a good part of the explanation lies in the fact that so little has been done to restructure public enterprises to render them better capable of serving as agencies of productive investment and growth.

True, the situation facing Indian industry today is not that of a typical cyclical recession calling for remedial action in terms of stepped-up government expenditure. In that sense it would be best as well not to entertain extravagant expectations of the effort by the Reserve Bank to lower interest rates of which the finance minister has given an advance indication in his budget speech. The state of the economy, of industry and infrastructure in particular, calls for far-reaching organisational and strategic changes by private sector companies and business groups as much as by public sector enterprises. It is hardly surprising that such should be the case, considering that these entities had struck roots mostly during the long years of industrial regulation and licensing and protection against imports. The initial spurt in industrial growth after the initiation of the economic reforms in the early nineties was to a great extent little more than a quick response on the part of industrialists and businessmen to opportunities which were hastily perceived as having been opened up by the new industrial regime. In retrospect it is clear that a good proportion of the projects initiated in that heady period are likely to prove to be of doubtful viability in a more competitive and open economy with progressively lower import tariffs. The finance minister has accepted the importance of corporate and industrial restructuring and the very first item of his direct tax proposals relates to changes in the Income Tax Act to facilitate industrial reorganisation through amalgamations and mergers. This is certainly a positive signal. However, as important as tax policy changes are reforms in other areas, importantly labour laws and regulations. Also important is a willingness on the part of official agencies, especially the financial institutions, to accept the rationale and inevitability of management changes.

The proposals of the budget which have had an immediate and quite spectacular impact have been the ones designed to boost the capital markets. These include exemption from income tax of all income from mutual funds, including the UTI, in the hands of investors, the exemption of all open-ended equity-oriented schemes of the UTI and other mutual funds with more than 50 per cent investment in equity from dividend tax and the option offered to resident investors to

have their capital gains from shares and securities taxed at the rate of 10 per cent but without the benefit of indexation – on par with non-resident investors. However, it is difficult to share fully the markets' euphoria because a booming capital market can only go so far in reviving industrial investment in the absence of, as noted above, essential industrial and business restructuring, including of course of government-owned companies. It is doubtful that there are a significant number of investment proposals which have been waiting upon the revival of the capital market. In a situation such as this there is in fact the danger that another price boom in the markets may be taken advantage of once again by fly-by-night promoters with predictable consequences. We have been through this cycle more than once.

The changes which the finance minister has introduced in indirect taxes are indeed to be welcomed. In fact, in another break from tradition, the finance minister has given precedence in his budget speech to his indirect tax proposals over his direct tax proposals. The rationalisation of the rate structure of excise and customs tariffs, though far from complete, is a long-awaited step which has been an important part of numerous recent reports and recommendations on the subject of tax reform. It is also good that the finance minister has moved away from the practice of making a large number of changes in tariffs for individual industries and products. This no doubt accounts for the disappointment with the budget voiced by a number of industry associations. But the fact is that while these kind of changes in tariffs have been traditionally the object of intense lobbying on the eve of budgets in the past, their rationale from a broader perspective of encouraging investment and production has been clearly suspect. So it is to be hoped that the present finance minister's successors will continue with the practice he has started. The surcharge on corporate tax, on the other hand, defies logic in the context of the current industrial situation. The surcharge on personal income tax is unobjectionable; in fact there is an opinion among economists and tax experts that the reduction in personal income tax rates effected by the present finance minister's predecessor should have been more graduated and in that sense an upward adjustment of the personal income tax rates on a permanent basis instead of through a temporary surcharge could have been justified. On the other hand, given the state of industry, the surcharge on corporate tax was hardly the appropriate signal for the budget to have sent out. And the finance minister has only made matters worse by assuring industry that this is a purely temporary measure. How does it make sense to raise the corporate tax when industry is doing badly and to promise to reduce it when it is, hopefully, doing better?

RAILWAYS

Rhetoric and Reality

THERE is much to commend the intent of the Railway Budget presented by the minister Nitish Kumar. But not all the rhetoric at his command can hide the fact that the prestigious, crucial service and industry that is the railways, is in dire trouble. Not because of any inherent deficiency, nor for that matter because the railways are an aberration in the context of structural change and modernisation; but almost entirely due to the fact that the development of this vital sub-sector has been prompted more by populist pressures than pragmatism and planning. If today Nitish Kumar has presented a 'passenger year' budget for 1999-2000, introducing 14 new routes, allocating a remarkable 59 per cent increase in funds for guage conversions, 'rationalising fares' such that the 'poor' including the highly subsidised urban commuters are left untouched quite ignoring the fact that the railways' earnings have dropped, especially because of poor uptake of freight traffic, he is after all following in the footsteps of illustrious, even radical ministers of earlier governments. Even worse, there appears to be little comprehension of the fact that the deteriorating safety record of the railways has a lot to do with the lack of consistent, adequately staffed and well supervised maintenance of track and rolling stock. Reversing these trends requires the kind of investments which cannot be used as election fodder. For instance, track renewals have been granted a small 19 per cent increase over last year, clearly nowhere near enough to ensure all the necessary replacements requiring a prioritisation of funds. This may not contribute to safety. The minister in his speech pointed out other measures that will be taken this year. Recognising that several accidents occur due to rail fractures and weld failures the ministry has decided to purchase two high speed self-propelled ultrasonic rail testing cars to facilitate track checking; walkie-talkies are being provided to all drivers and guards on all A and B routes; track circuiting is being undertaken and a pilot project of a radio-based automatic train control system is being instituted. There are 24,359 unmanned railway crossings, converting which to manned crossings would require according to the minister an outlay of Rs 2,200 crore. Typically, the minister has decided to create a fund for the task. More interestingly now it is possible for MPs to demand area development funds for converting unmanned crossings in their constituencies. It would be interesting to see how often such requests will be made for such unspectacular 'development' projects.

That the year 1997-98 was not a favourable year for the railways is acknowledged – while the loading of petroleum products and fertilisers and 'other goods' was higher than the previous year, budgetary targets for coal, foodgrains, iron and steel, cement and iron ore have not been met. These are core areas and the railways' poor performance here has affected the budget. While the railways' operating ratio has admittedly improved from the last year's revised estimate of 91 per cent, it has been only marginally to 90.9 per cent and is nowhere near the 82.5 per cent in 1995-96. This means that for all the rhetoric in the minister's speech funds available for maintenance and expansion have been greatly reduced. And given the fact that there has been no curtailment in the expansion of services, it will be maintenance which will bear the brunt of this squeeze.

There also appears to be little thought given to bringing back the freight lost to the railways. Instead there is a move to seek out other areas. For instance, special measures have been suggested to encourage parcel traffic. While this may be a commendable effort, it surely cannot make up for the loss of freight in the core areas. It is of course true that the loss of freight in areas such as cement, iron and steel has also a lot to do with the lack of movement and demand because of stagnation in the economy. Even so, from all points of view, including environmental, it is necessary to ensure that the railways continue to move most of the core goods.

In all this perhaps the only component of the budget which brings cheer is the bold step of banning the sale of tobacco on railway stations and on trains. And even this may be open to change with the kind of pressures that can be brought on the ministry by influential tobacco interests.

PUNJAB

Religion and Politics

IN the Akali Dal where politics and religion are deeply intertwined, any attempt to demarcate their domains runs the risk of creating schisms within the party. The acrimonious struggle which has broken out between the Badal and the Tohra factions over the tercentenary celebrations of the birth of the Khalsa is a case in point.

Former Akal Takht jathedar Bhai Ranjit Singh and Shiromani Gurudwara Prabhandak Committee (SGPC) president Gurcharan Singh Tohra had declared in December that since the tercentennial to be held in April was a religious function, the government should not interfere in it and should channelise the funds for the event through the religious body, the SGPC. Tohra went a step further and against the backdrop of the Akali Dal's defeat in the Adampur by-election advised Punjab chief minister Parkash Singh Badal to step down from the presidentship of the party and concentrate on improving the government's performance. Tohra's advice on party affairs was bound to be interpreted as mischievous by Badal since at the same time, as the SGPC chief, Tohra was taking up cudgels to defend the autonomy of the religious domain on the eve of the Khalsa ceremony. Badal was quick to cut Tohra down to size by slapping a show cause notice on him for breach of party discipline as Tohra is also a Rajya Sabha member representing the Akali Dal.

In the ensuing battle for supremacy, Badal has so far succeeded in systematically decimating the Tohra camp, both within the party and in the SGPC. Tohra lacks the necessary support to engender a split in the party. He does not also enjoy a majority in the 15-member executive council of the SGPC despite his unbroken 25-year run as SGPC president. Badal, on the other hand, by tightening his grip over the party, the SGPC and the three-member Sikh Gurudwara Judicial Commission has forced Tohra into a corner. Assured of support in these three main religio-political bodies, Badal has not hesitated to confront former Akal Takht jathedar Bhai Ranjit Singh as soon as he was perceived to be protecting a beleaguered Tohra through his 'hukumnama'. In fact, the three-month war of attrition in Akali politics has shown that Bhai Ranjit Singh and Tohra clearly lack the wherewithal to dislodge Badal and have instead been reduced to offering their resignations from their respective religious posts if Badal agreed to accept their conditions. The Khalsa tercentenary celebrations may eventually witness parallel mobilisations by the Badal and Tohra camps. But the boundaries between politics and religion remain fuzzy as before. By marginalising Bhai Ranjit Singh and Tohra, Badal has succeeded in bringing the Akal Takht and the SGPC under his political influence.

INDUSTRY

Structural Constraints

A correspondent writes:

THIS is the season for coming forth with suggestions and advice to the finance minister, whose second budget is round the corner. The economy is stagnant and there is no sign of a recovery on the horizon. Exports are slothful and though foreign exchange reserves have risen, they can evaporate as easily as they have accumulated as much of these reserves are due to NRI investment. Though the rate of growth has received a prop from some sleight-of-hand by the CSO, its tenuous base is likely to be exposed sooner or later. In the meantime the fiscal deficit is ballooning and no one knows how to rein it.

The remedies suggested by the experts are many. It is more like looking for a needle in pitch darkness. Control of the fiscal deficit is the obvious panacea, but the political reality is such that it is a virtual non-starter. There may be some gimmicks used to show a lower fiscal deficit but it will not make a whit of difference to the basic problems of the economy. Given this imperative, one may think of jacking up public investment but learning from the past experience such investment will be leaky, bereft of any contribution to production. In such circumstances, growth of public investment would be a sure recipe for inflation and further turmoil in the economy.

Manu Shroff in his presidential address at the Annual Conference of Gujarat Economic Association has made a persuasive case for a low interest rate policy. Even considering that such a policy is not without risk of fuelling inflation, he thinks that it has some potential, though a limited one, to jump-start a recovery, at least in the industrial sector. He has proposed an interesting idea regarding measurement of real interest rates. Since the industrial sector is the principal stagnant sector, the real interest rate relevant for it is the one adjusted on the basis of the price index for manufactures. The current real interest rate so calculated works out to around 7 to 8 per cent which is historically a very high rate. Given the poor profit expectations in the surrounding gloom, it is clear that high real interest rates are a real drag on the economy when capacity utilisation is hardly 30 to 40 per cent.

While the underlying logic of Shroff's suggestion is sound, it is no more than a placebo. It would certainly propel industrial growth for a while but is not likely to resolve the main problem of structural reform of the industrial sector and the economy. Shroff's premise that the present industrial stagnation is cyclical in nature is suspect. The basic constraints are structural, in that production is high cost and therefore uncompetitive. Several industrial units boast of very diversified production, thinly spread without comparative advantages. They could survive in the past but in today's environment they have to take hard decisions to downsize and to divest themselves of activities which cannot be sustained. In fact, available evidence, while episodic, shows that Indian industry is moving slowly to downsize its operations by shedding unviable activities, offering voluntary retirement schemes and focusing on core functions. The results of this movement towards a competitive structure will be apparent in the next few years.

What the government should do, but is shying away from doing, is to take a bold decision to adopt policies directed towards elimination of labour market rigidities to facilitate downsizing and even closure of industrial units. In the meantime a low interest rates policy could help, but only as a stop-gap arrangement to provide interim relief to industry.

Another component of demand that could help moderate the industrial recession is exports. Evidence seems to point to Indian exports having a cost disadvantage, both short-term and long-term. The short-term infirmity can be removed by gradual devaluation of the rupee, to bring the exchange rate in alignment with India's competitors, the east Asian countries in particular. But the long-term disadvantage is deeply rooted in the absence of infrastructural facilities like ports, communication, transport and power. Unfortunately, there is more talk on this than real action. Unless the authorities take the bull by the horns, reduction of interest rates or even reduction of the fiscal deficit by itself will not save the economy from the corrosive impact of structural stagnation.

CURRENT STATISTICS

EPW **Research Foundation**

A feature of the revised national income series and the index of industrial production has been the widening disparity between the growth rates of the registered manufacturing sector and the IIP for manufacturing. While for the second half of the 1980s the IIP growth was higher than the GDP of registered manufacturing (7.5 per cent) which continued for two more years until 1991-92, thereafter the position got reversed. As per the 1980-81 series, the average growth of registered manufacturing was 10 per cent, whereas the IIP growth was 8 per cent. In the revised series the differential got further widened to 11 per cent and 7.5 per cent, respectively

Macroeconomic Indicators

Index Numbers of Wholesale Prices (1981-82 = 100)	Weights	Feb 6, 1999	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
All Commodities	100.00	354.2	0.1	4.7	5.3	5.1	5.7	5.3	6.9	5.0	10.4
Primary Articles	32.30	383.2	neg	8.0	4.9	10.2	7.6	5.5	7.0	5.4	12.7
Food Articles	17.39	442.8	0.3	9.0	3.9	12.6	7.5	4.0	9.6	9.8	11.9
Non-Food Articles	10.08	387.3	–0.5	8.6	6.9	8.7	8.6	8.5	3.5	–1.9	15.5
Fuel, Power, Light and Lubricants	10.66	376.1	0.5	–0.3	10.0	–2.1	9.4	11.4	16.9	3.7	2.4
Manufactured Products	57.04	333.6	0.1	3.6	4.5	3.5	3.8	4.0	4.9	5.0	10.7
Food Products	10.14	343.6	–1.1	5.0	6.9	5.5	5.9	5.5	14.1	–0.7	8.1
Food Index (computed)	27.53	406.3	–0.2	7.8	4.9	10.3	6.9	4.5	11.1	6.3	10.6
All Commodities (Average Basis) (April 4, 1998 - February 6, 1999)	100.00	352.1	–	6.9	5.2	7.2	4.8	4.8	6.4	7.8	10.9

Cost of Living Indices	Latest Month	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
Industrial Workers (1982=100)	429.0[12]	–2.1	15.3	6.3	12.9	6.0	8.3	10.0	8.9	9.7
Urban Non-Man Emp (1984-85=100)	345.0[12]	–1.4	12.4	6.2	10.6	5.5	7.2	10.2	8.2	9.9
Agri Lab (1986-87=100) (Link factor 5.89)	305.0[12]	–1.6	15.1	0.8	12.1	1.1	3.8	10.5	7.2	11.1

Money and Banking (Rs crore)	Jan 29, 1999	Variation: Over Month	Over Year	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96
Money Supply (M_3)	937481	11518(1.2)	155801(19.9)	112091(13.6)	79832(11.4)	123451(17.6)	97841(16.2)	72581(13.7)
Currency with Public	165046	4617(2.9)	21742(15.2)	19864(13.7)	11217(8.5)	13095(9.9)	13829(11.7)	17577(17.5)
Deposit with Banks	769303@	7232(0.9)	134415(21.2)	92701(13.7)	68320(12.1)	110036(19.4)	84162(17.5)	55042(12.9)
Net Bank Credit to Govt	382688	2566(0.7)	64085(20.1)	52068(15.7)	29983(10.4)	42000(14.6)	30840(12.0)	35360(15.9)
Bank Credit to Comml Sector	462443	6467(1.4)	50302(12.2)	30253(7.0)	35834(9.5)	55883(14.9)	31659(9.2)	51925(17.7)
Net Foreign Exchange Assets	139985	1887(1.4)	21158(17.8)	13416(10.6)	13331(12.6)	21072(20.0)	23356(28.4)	3109(3.9)
Reserve Money (Feb 12)	252341	1803(0.7)	42710(20.4)	26107(11.5)	9645(4.8)	26248(13.1)	5527(2.8)	25176(14.9)
Net RBI Credit to Centre	155362	4052(2.7)	28605(22.6)	21745(16.3)	6054(5.0)	12915(10.7)	1934(1.6)	19855(20.1)
RBI Credit to Bks/Comm Sector	22188	–3627(14.0)	7912(55.4)	6906(45.2)	1024(7.7)	2029(15.3)	–15557(–54.0)	8747(43.6)
Scheduled Commercial Banks (Feb 12)								
Deposits	691718	6656(1.1)	120047(21.0)	86308(14.3)	66072(13.1)	99811(19.7)	71780(16.5)	46960(12.1)
Advances	349750	510(1.7)	41764(13.6)	25671(7.9)	29585(10.6)	45677(16.4)	24386(9.6)	42455(20.1)
Non-Food Advances	332637	–3(1.5)	36896(12.5)	21043(6.8)	249371(9.2)	40790(15.1)	26580(10.9)	44938(22.5)
Investments (for SLR purposes)	249668	–175(0.5)	36076(16.9)	30963(14.2)	23079(12.1)	28192(14.8)	25731(15.6)	15529(10.4)
Commercial Investments	46693	1109(2.4)	10738(29.9)	13609(41.1)	16544(131.9)	13673(70.4)	4412(29.4)	925(6.6)

@ Includes Rs 17,945 crore on account of proceeds from RIBs, excluding which the year-on-year growth of money supply would be 17.6 per cent.

Manufacturing Value Added and Output Index	New Series (Base 1993-94=100): 1997-98	1996-97	1995-96	1994-95	1993-94	Old Series (Base 1980-81-100): 1996-97	1995-96	1994-95
GDP of Regd Manufacturing	126133	116836	108200	93840	83077	43157	39884	34940
(Rs crore)	(8.0)	(8.0)	(15.3)	(13.0)		(8.2)	(14.1)	(12.5)
IIP: Manufacturing	140.5	131.8	123.5	108.5	100.0	302.8	278.8	245.4
	(6.7)	(6.7)	(13.8)	(8.5)		(8.6)	(13.6)	(9.8)

Capital Market	Feb 26, 1999	Month Ago	Year Ago	1998-99 So Far: Trough	1998-99 So Far: Peak	1997-98: Trough	1997-98: Peak	End of Fiscal Year: 1997-98	1996-97	1995-96
BSE Sensitive Index (1978-79=100)	3234(–9.5)	3309	3572(4.2)	2783	4281	3210	4548	3893(15.8)	3361(–0.2)	3367(3.3)
BSE-100 (1983-84=100)	1435(–7.1)	1460	1544(3.6)	1242	1890	1401	1980	1697(15.9)	1464(–5.5)	1549(–3.5)
BSE-200 (1989-90=100)	332(–3.1)	338	343(3.3)	289	429	314	440	377(14.9)	328(–5.0)	345(–6.3)
S and P CNX-50 (Nov 3, 1995=1000)	941(–10.0)	950	1046(5.3)	812	1213	941	1140	1117(15.4)	968	na
Skindia GDR Index (Jan 2, 1995=1000)	578(–38.7)	603	943	515	1015	765	1320	940(1.1)	930(–4.4)	973(–0.6)

Foreign Trade	December 1998	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
Exports: Rs crore	11853	101850(10.0)	92599(8.0)	126286(6.3)	118817(11.7)	106353(28.6)	82674(18.5)
US $ mn	2785	24239(–4.5)	25369(4.6)	33980(2.6)	33470(5.3)	31797(20.8)	26330(18.4)
Imports: Rs crore	14464	132447(20.4)	110018(12.5)	151554(9.1)	138920(13.2)	122678(36.3)	89971(23.1)
US $ mn	3399	31521(4.6)	30141(8.9)	40779(5.8)	39132(6.7)	36678(28.0)	28654(22.9)
Non-POL: US $ mn	3004	27102(12.3)	24143(17.0)	32562(11.9)	29096(–0.2)	29152(28.3)	22727(29.5)
Balance of Trade: Rs crore	–2611	–30597	–17419	–25268	–20102	–16325	–7297
US $ mn	–614	–7282	–4772	–6799	–5663	–4881	–2324

Foreign Exchange Reserves (excluding gold)	Feb 19, 1999	Feb 20, 1998	Mar 31, 1998	Variation Over: Month Ago	Year Ago	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95	1993-94
Rs crore	117038	93497	102511	9	23541	14527	13122	22136	21649	–7302	18402	27430
US $ mn	27666	24042	25976	147	3624	1690	1673	3607	5243	–3690	5640	8724

Notes: (i) Superscript numeral denotes month to which figure relates, e g, superscript 12 stands for December; (ii) Figures in brackets are percentage variations over the specified or over the comparable period of the previous year. na: not available.

Index of Industrial Production (Base 1993-94=100)

Major Groups	Weight (Per Cent)	April-December 1998-99	April-December 1997-98	April-December 1996-97	April-December 1995-96	April-December 1994-95	1997-98	1996-97	1995-96	1994-95
General Index	100.000	139.2	134.5	126.0	117.9	104.5	137.6	129.1	122.3	108.4
		(3.5)	(6.7)	(6.9)	(12.8)	(4.5)	(6.6)	(5.5)	(12.8)	(8.4)
Mining and quarrying	10.473	117.3	118.6	112.4	113.8	103.1	122.4	115.6	117.9	107.6
		(-1.1)	(5.5)	(-1.2)	(10.4)	(3.1)	(5.9)	(-2.0)	(9.6)	(7.6)
Manufacturing	79.358	142.6	137.5	128.6	118.8	104.5	140.5	131.8	123.5	108.5
		(3.7)	(6.9)	(8.2)	(13.7)	(4.5)	(6.7)	(6.7)	(13.8)	(8.5)
Electricity	10.169	135.8	127.4	120.2	115.8	106.3	130.0	122.0	117.3	108.5
		(6.6)	(6.0)	(3.8)	(8.9)	(6.3)	(6.7)	(3.9)	(8.1)	(8.5)
Use-based Classification										
Basic Goods	35.512	131.4	129.6	121.4	117.0	105.8	132.4	124.3	120.6	108.9
		(1.4)	(6.8)	(3.8)	(10.6)	(5.8)	(6.5)	(3.1)	(10.7)	(8.9)
Capital Goods	9.687	134.7	122.7	115.0	103.7	97.0	126.4	120.2	110.0	105.6
		(9.8)	(6.7)	(10.9)	(6.9)	(-3.0)	(5.2)	(9.3)	(4.2)	(5.6)
Intermediate Goods	26 439	153.0	146.1	134.0	122.4	103.0	146.5	135.5	125.4	105.3
		(4.7)	(9.0)	(9.5)	(18.8)	(3.0)	(8.1)	(8.1)	(19.1)	(5.3)
Consumer Goods	28.362	137.7	133.9	128.0	119.8	106.9	139.6	132.1	125.6	111.8
		(2.8)	(4.6)	(6.8)	(12.1)	(6.9)	(5.7)	(5.2)	(12.3)	(11.8)
Consumer durables	5.115	163.0	159.4	149.3	140.3	112.5	164.9	153.0	146.2	116.2
		(2.3)	(6.8)	(6.4)	(24.7)	(12.5)	(7.8)	(4.7)	(25.8)	(16.2)
Consumer non-durables	23.237	132.1	128.3	123.4	115.3	105.7	134.1	127.5	121.1	110.8
		(3.0)	(4.0)	(7.0)	(9.1)	(5.7)	(5.1)	(5.3)	(9.3)	(10.8)
Manufacturing Industries: Two-Digit Level (NIC-87)										
20-21 Food products	9.083	123.5	120.1	122.5	115.5	108.7	133.8	134.3	129.8	121.6
		(2.8)	(-2.0)	(6.1)	(6.3)	(8.7)	(-0.4)	(3.4)	(6.8)	(21.6)
22 Beverages, tobacco and	2.382	175.2	153.9	131.1	115.9	102.2	158.1	132.4	116.7	103.0
related products		(13.8)	(17.4)	(13.1)	(13.4)	(2.2)	(19.4)	(13.5)	(13.3)	(3.0)
23 Cotton textiles	5.518	115.3	127.9	121.4	107.6	98.5	125.6	122.7	109.5	99.1
		(-9.9)	(5.4)	(12.8)	(9.2)	(-1.5)	(2.4)	(12.0)	(10.6)	(-0.9)
24 Wool, silk and man-made	2.258	176.1	173.3	142.5	128.7	112.3	172.0	145.1	131.3	114.5
fibre textiles (except cotton)		(1.6)	(21.6)	(10.7)	(14.6)	(12.3)	(18.5)	(10.5)	(14.7)	(14.5)
25 Jute and other vegetable	0.590	107.7	113.8	93.8	100.7	93.8	114.3	98.0	102.4	96.8
fibre textiles		(-5.4)	(21.3)	(-6.9)	(7.4)	(-6.2)	(16.6)	(-4.3)	(5.8)	(-3.2)
26 Textile products	2.537	154.5	159.5	146.9	131.1	97.9	158.7	146.3	133.7	98.5
(incl wearing apparel)		(-3.1)	(8.6)	(12.1)	(33.9)	(-2.1)	(8.5)	(9.5)	(35.7)	(-1.5)
27 Wood and wood products;	2.701	123.0	127.2	131.4	119.0	95.6	128.5	131.9	123.2	99.3
furnitures and fixtures		(-3.3)	(-3.2)	(10.4)	(24.5)	(-4.4)	(-2.6)	(7.0)	(24.0)	(-0.7)
28 Paper and paper products and	2.652	166.8	143.8	136.4	121.6	105.5	146.4	136.9	125.5	108.6
printing and publishing and allied industries		(16.0)	(5.4)	(12.2)	(15.3)	(5.5)	(6.9)	(9.1)	(15.6)	(8.6)
29 Leather and leather and	1.139	116.6	111.1	108.0	97.2	86.8	110.8	108.4	99.1	86.8
fur products		(5.0)	(2.9)	(11.1)	(12.0)	(-13.2)	(2.2)	(9.4)	(14.2)	(-13.2)
30 Basic Chemicals and chemical	14.002	146.7	139.0	121.4	115.0	104.1	140.5	122.8	117.2	105.3
products (except products of petroleum and coal)		(5.5)	(14.5)	(5.6)	(10.5)	(4.1)	(14.4)	(4.7)	(11.3)	(5.3)
31 Rubber, plastic, petroleum	5.728	136.0	123.0	118.3	116.2	108.0	124.6	118.4	116.1	107.7
and coal products		(10.6)	(4.0)	(1.8)	(7.6)	(8.0)	(5.2)	(2.0)	(7.8)	(7.7)
32 Non-metallic mineral	4.397	161.7	159.5	138.5	127.1	104.2	161.4	141.9	131.7	108.0
products		(1.4)	(15.2)	(9.0)	(22.0)	(4.2)	(13.7)	(7.7)	(21.9)	(8.0)
33 Basic metal and alloys	7.453	137.7	142.0	137.3	125.9	110.8	143.5	139.8	131.0	113.1
industries		(-3.0)	(3.4)	(9.1)	(13.6)	(10.8)	(2.6)	(6.7)	(15.8)	(13.1)
34 Metal-products and parts except	2.810	140.5	114.3	110.1	99.1	100.7	120.2	111.0	100.6	104.7
machinery and equipment		(22.9)	(3.8)	(11.1)	(-1.6)	(0.7)	(8.3)	(10.3)	(-3.8)	(4.7)
35-36 Machinery and equipment	9.565	141.9	146.8	137.3	128.3	104.9	149.5	141.7	134.7	112.8
other than transport equipment		(-3.3)	(6.9)	(7.0)	(22.3)	(4.9)	(5.5)	(5.2)	(19.5)	(12.8)
37 Transport equipment and parts	3.984	181.3	150.0	144.4	126.7	106.8	153.8	149.9	132.8	113.2
		(20.9)	(3.9)	(14.0)	(18.6)	(6.8)	(2.6)	(12.9)	(17.4)	(13.2)
38 Other manufacturing	2.559	130.5	118.5	121.4	110.9	99.6	120.4	123.8	117.7	104.0
industries		(10.1)	(-2.4)	(9.5)	(11.3)	(-0.4)	(-2.7)	(5.2)	(13.2)	(4.0)
Manufacturing (Total)	79.358	142.6	137.5	128.6	118.8	104.5	140.5	131.8	123.5	108.5
		(3.7)	(6.9)	(8.2)	(13.7)	(4.5)	(6.7)	(6.7)	(13.8)	(8.5)

Note: Figures within brackets are percentage variations over the corresponding period of the previous year.
Source: Central Statistical Organisation (CSO).

BIRLA VXL

Corporate Restructuring

BIRLA VXL, the flagship company of the S K Birla group, saw a mixed performance during the year ended June 1998. While net sales were lower by 3.4 per cent in 1997-98, the company's operating profit improved significantly by 28.5 per cent over the previous year. (Figures for the years 1997-98, 15-month period, and 1996-97, 12-month period, are not strictly comparable, but all percentages have been annualised for comparison.) However, the absence of a large non-operating income (1996-97: Rs 25.7 crore) and a sharp increase in interest (up 15.7 per cent) and depreciation provision (up 41 per cent) led to a marked decline in net profit during the year under review.

Despite the fall in earnings, the company declared a dividend of 10 per cent and had to dip into reserves to distribute the same. (The fall in earnings per share (EPS) shown in the table is due to the fact that preference dividend has been deducted from the company's net profit while deriving EPS.) Consequently, the company's book value declined from Rs 41.6 per share last year to Rs 39.5 per share. The company's equity share presently quotes below par on the bourses.

Birla VXL is engaged in the production of cloth, blankets and shawls, yarn, garments, soda ash and alkali chemicals. Known for its Digjam brand of woollen and worsted fabrics and OCM brand of carpets and carpet yarn, the company also exports its products to the United States, Canada, West Asia and the Far East.

In order to improve its performance, the company now plans to focus on its core business of textiles and is reportedly weighing the possibility of hiving off its chemicals division into a separate company. The Sauken chemicals division, which makes soda at Porbandar in Gujarat, contributed almost half of the company's earnings in 1997-98. However, the costs incurred by the division have been higher than the industry average. As compared to a cost of Rs 151 per tonne of salt incurred the market leader Tata Chemicals, the division pays Rs 348 per tonne of salt. The division's cost of power is also much higher as it has an old power plant. However, it is also true that Birla VXL occupies the third spot among soda ash makers with a market share of 18 per cent. The proposed strategy involves transferring the chemicals division to a new company at a book value of Rs 61.13 crore, which is the difference between the division's assets and liabilities. Birla VXL shareholders will be issued shares of the new company at par.

The company has also sought restructuring of loans worth Rs 165.6 crore to tide over financial difficulties. The proposal forwarded by the company envisages, among other things, pushing back interest payments to a later date and swapping foreign debt with rupee loans.

The beleaguered company is trebling the manufacturing capacity of its garment unit from three million pieces per year to nine million pieces annually. The company's state-of-the-art garment unit near Delhi manufactures high quality formal trousers.

DR REDDY'S LABS

Rapid Growth

Dr Reddy's Laboratories (DRL), a Hyderabad-based pharmaceutical company, performed well in 1997-98. While net profit improved by 31.9 per cent over 1996-97, operating profit was higher by 52.5 per cent. Net profit too jumped by 45.7 per cent. Though earnings per share rose from Rs 12.7 to Rs 18.4, the company decided to maintain dividend at 30 per cent. Book value, meanwhile, moved up from Rs 113.5 per share to Rs 128.7 per share. The company's equity share presently quotes at around Rs 699 on the bourses, discounting its earnings per share by a comfortable 37.9 times.

The company's formulations, which achieved a growth rate of 57 per cent to Rs 207 crore, were major contributors to turnover. Domestic formulations accounted for Rs 136 crore, 39 per cent higher than that in 1996-97. The company's bulk drug division registered sales of Rs 115 crore while the diagnostics division notched up sales of Rs 10 crore, up from Rs 5 crore in the previous year. The company reportedly achieved a major breakthrough with the discovery of the potential insulin sensitiser by Dr Reddy's Foundation. The same has been licensed to Novo Nordisk of Denmark. The company's critical care unit will also market (in India) molecules which were discovered and patented by Debiopharm, including a new platinum analogue oxaliplatin for cancer.

The company's exports increased by more than 50 per cent during the year under review and it has a presence in the CIS countries, Myanmar, Vietnam and Sri Lanka. The company is also trying to establish its foothold in Kenya, Malaysia, Yemen, Venezuela, Trinidad, China and Brazil.

The company has acquired five brands from Calcutta-based pharma company, Dolphin Laboratories, at a cost of Rs 20 crore. Out of the five brands acquired, Styptovit, Styptomet and Styptochrome are haemostatics, Doxt is an antibiotic and Trichodol is a hepato-stimulant protective indicated in the treatment of acute and chronic liver diseases. DRL has also acquired the manufacturing and marketing rights for a sixth brand, Dicynene, which is also a haemostatic. These additions to the company's portfolio are expected to add Rs 25 crore to its turnover in the first full year of marketing. The company's brand equity with gynaecologists, surgeons, ENT and chest physicians, dentists and gastroenterologists is also expected to be strengthened.

Meanwhile, in the first half of 1998-99 the company has achieved a growth of 43 per cent in net profit over the corresponding period last year. However, if one takes into account a provision for export receivables, the growth amounts to 5 per cent. Total income was higher by 30 per cent during the same period.

DRL has managed to collect receivables of over three million dollars from the Commonwealth of Independent States (CIS) in the third quarter of the current year. However, despite this, the company intends to stick to its provisioning for write-offs as resolved in the first half of the current year. While sales during this period improved by 18 per cent over the same period last year, the domestic formulations division posted a growth of 69 per cent to Rs 40 crore. The company's local bulk business clocked sales of Rs 22.6 crore, an increase of 36 per cent over the same period. The company expects lower exports to CIS and softening of bulk drug prices to result in a more moderate 24 per cent turnover growth in the full year ending March 1999.

UNITED PHOSPHORUS

Lower Sales and Profits

A major player in the pesticides business, United Phosphorus has set up 13 companies internationally to become a global player. Over the years, the company has seen a transition from a totally technology driven entity in the seventies to a manufacturing entity in the eighties. In the late eighties, the company got into distribution and marketing and invested

(Rs lakh)

Financial Indicators	Birla VXL June 1998	Birla VXL March 1997	Dr Reddy's Labs March 1998	Dr Reddy's Labs March 1997	United Phosphorus March 1998	United Phosphorus March 1997
Income/appropriations						
1 Net sales	58526	48470	29854	22643	45293	49879
2 Value of production	63734	49060	29378	23582	44235	49087
3 Other Income	1007	331	357	239	2012	1655
4 *Total income*	64741	49391	29735	23821	46247	50742
5 Raw materials/stores and spares consumed	20433	18127	11154	10931	22222	26141
6 Other manufacturing expenses	11267	9910	1450	870	8206	8543
7 Remuneration to employees	6866	5274	2036	1597	2205	1522
8 Other expenses	11525	6960	6978	5099	6252	5608
9 *Operating profit*	14650	9120	8117	5324	7362	8928
10 Interest	9477	6553	888	848	2960	4615
11 *Gross profit*	5142	5138	5988	4083	3799	4435
12 Depreciation	5056	2868	654	580	1522	1383
13 *Profit before tax*	86	2270	5334	3503	2277	3052
14 Tax provision		210	450	150	250	415
15 *Profit after tax*	86	2060	4884	3353	2027	2637
16 Dividends	1200	1169	874	874	975	965
17 Retained profit	-1114	891	4010	2479	1052	1672
Liabilities/assets						
18 Paid-up capital	8509	9059	2649	2649	4647	3557
19 Reserves and surplus	38790	28117	31438	27428	35979	34297
20 Long-term loans	68748	58135	1232	1113	14266	17353
21 Short-term loans	NA	NA	4855	5146	14356	8339
22 Of which bank borrowings	NA	NA	2855	4646	7984	5849
23 Gross fixed assets	100703	80985	14448	12190	30428	29469
24 Accumulated depreciation	26433	24033	2799	2146	6188	4681
25 Inventories	23548	17603	5570	6151	9206	11353
26 Total assets/liabilities	130055	107178	45499	40704	76560	71422
Miscellaneous items						
27 Excise duty	9349	8089	3308	2351	2989	3815
28 Gross value added	21477	19438	7851	6137	7072	9602
29 Total foreign exchange income	8296	9039	11170	7007	19036	19084
30 Total foreign exchange outgo	10679	7167	5835	5109	7574	6628
Key financial and performance ratios						
31 Turnover ratio (sales to total assets) (%)	45.00	45.22	65.61	55.63	59.16	69.84
32 Sales to total net assets (%)	50.43	50.85	74.31	62.32	65.41	78.49
33 Gross value added to gross fixed assets (%)	21.33	24.00	54.34	50.34	23.24	32.58
34 Return on investment (gross profit to total assets) (%)	3.95	4.79	13.16	10.03	4.96	6.21
35 Gross profit to sales (gross margin) (%)	8.79	10.60	20.06	18.03	8.39	8.89
36 Operating profit to sales (%)	25.03	18.82	27.19	23.51	16.25	17.90
37 Profit before tax to sales (%)	0.15	4.68	17.87	15.47	5.03	6.12
38 Tax provision to profit before tax (%)	N A	9.25	8.44	4.28	10.98	13.60
39 Profit after tax to net worth (return on equity) (%)	0.18	5.54	14.33	11.15	4.99	6.97
40 Dividend (%)	10.00	10.00	30.00	30.00	30.00	30.00
41 Earning per share (Rs)	-0.61	2.47	18.44	12.66	7.32	10.11
42 Book value per share (Rs)	39.46	41.58	128.68	113.54	150.78	149.09
43 P/E ratio	-14.68	NA	37.91	NA	16.67	NA
44 Debt-equity ratio (adjusted for revaluation) (%)	248.34	196.31	3.61	3.70	35.22	45.99
45 Short-term bank borrowings to inventories (%)	NA	NA	51.26	75.53	86.73	51.52
46 Sundry creditors to sundry debtors (%)	107.52	78.76	32.33	28.83	23.38	35.80
47 Total remuneration to employees to value added (%)	31.97	27.13	25.93	26.02	31.18	15.85
48 Total remuneration to employees to value of production (%)	10.77	10.75	6.93	6.77	4.98	3.10
49 Gross fixed assets formation (%)	24.35	NA	18.52	NA	3.25	NA
50 Growth in inventories (%)	33.77	NA	-9.45	NA	-18.91	NA

NA: means not available.

a lot of its resources in the overseas market. The company today has eight products registered in the US.

The company had earlier hived off its chlor-alkali business into a separate subsidiary as the unit was not doing well, but the strategy seems to have not paid off. The downturn in the Indian economy and the agrochemical industry in particular adversely affected the company's performance in 1997-98. The industry witnessed reduced demand and a consequent dipping of bottomlines of major companies in the sector, and United Phosphorus was no exception. Prices of agrochemicals have come down drastically all over the world and this has affected profitability very badly. While the company's net sales declined by 9.2 per cent over 1996-97, operating profit fell by 17.5 per cent over the same period. Despite a 35.9 per cent fall in interest charges, the company's net profit fell drastically by 23.1 per cent.

Despite earnings per share coming down from Rs 10.1 last year to Rs 7.3, the company decided to maintain dividend at 30 per cent. Book value, meanwhile, moved up marginally from Rs 149.1 per share to Rs 150.8 per share.

The company's stock presently quotes at around Rs 122 on the bourses, discounting its 1997-98 earnings per share by 16.7 times.

For the first half of 1998-99 the company has managed to improve its performance. While net sales increased by 11.3 per cent over the corresponding period last year, operating profit surged ahead by 40.7 per cent. Net profit too improved by around 50 per cent.

Larsen & Toubro

L&T, the engineering giant, plans to acquire a 70 per cent stake in the Chowgule group company Narmada Cement (NCCL). Apart from acquiring shares from the Chowgules, L&T will also make a public offer for shares under the SEBI's take-over code. NCCL has a clinker capacity of 1.2 million tonnes per annum at Jaffrabad in Gujarat and an aggregate cement grinding capacity of 1.4 million tonnes per annum at Jaffrabad, Magdalla (Gujarat) and Ratnagiri (Maharashtra). L&T already enjoys a leadership position in the cement industry and the takeover is expected to further strengthen it. It will also see the company emerge as India's largest cement company with a capacity of 12 million tonnes per annum. With its existing infrastructure, L&T believes that it will be able to realise the full potential of NCCL. It will be possible to raise NCCL's clinker capacity to 1.4 million tonnes per annum with a marginal investment.

How Many Aspirins to the Rupee?

Runaway Drug Prices

S Srinivasan

Government intervention has kept Indian drug prices from spiralling. Different sectors of the pharmaceutical industry have reacted differently to the policies. There is confusion about what are reasonable prices and profits.

DRUGS have generally been beyond the reach of most people, most of the time, during the 50 years of our independence. There was of course a period in the late 1970s and early 1980s when drug prices were affordable – to the middle class – if taken in small doses. However costs of total treatment, and costs of getting sick, have been if anything but affordable.

Two important policy interventions had helped keep drug prices from spiralling. One, the 1970 Patents Act and the other, the Drug Prices Control Order (DPCO) 1978. The former did so by making process patents valid in India for pharmaceuticals. This dramatically brought down the prices, facilitating local bulk drug manufacture at costs one-tenths of international drug companies. The second policy intervention, the DPCO, 1978, with all its administrative limitations, put a damper on runaway prices. Subsequently drug companies, national and multinational, had their way, and have succeeded in persuading the government to reduce the basket of price controlled drugs from 347 in 1979 to 76 in 1995. The third major potential policy intervention, the Hathi Committee Report (1975), was never really implemented except perhaps for the DPCO and was generally consigned to shelves.

One of the contentions has been a fair amount of confusion as to what are reasonable prices, reasonable profit, and with drug companies even obfuscating on the costs involved.

Here we show that the same drug is available for a range of prices in the market. The lowest prices at which drug companies sell, apart from exports, are at the prices quoted in tender/contract to government departments and the like. A little higher are prices of generic drugs available (normally) through the wholesale traders who probably get a median commission of 5 per cent from the manufacturers, and a significant part of this sale is to private practitioners and GPs. Further higher priced are the generic drugs sold through some combination of C and F agents, stockists, retailers and medical representatives. The highest priced are brand-named drugs (also called patented medicines, or funnily, ethicals).

Firstly a bit of digression on the quality of data of generic drug prices of government supply. It is generally the case government departments, public sector companies, railways, and other major bulk purchasers, are cagey about revealing the final prices at which tender contracts are awarded. In most cases it is made out to be secret and confidential. The reason for this secrecy is the usual murky story of kickbacks, manipulations, collusion of supplier and the purchaser.

Somewhat of an exception to the (rule and this from personal experience of this writer) is the Tamil Nadu Medical Services Corporation (TNMSC), the sole purchaser for the Tamil Nadu state government health institutions. The TNMSC, for the last few years, has cleaned up its act so much so that information on who has bid which drug at what price is made available to all other bidders at the time of opening of the tenders; eventually the rates of lowest bidders are made public and now put on the web at www.tnmsc.com. There are also advance checks on the manufacturers even as quality checks take place after supply. (For more on TNMSC, see: R Poornalingam, 'Drug Management in the Government Sector: The Tamil Nadu Model', *Essential Drugs Monitor*, No 21, 1996:10 ff.)

Manipulating Quality

What does quality of drugs mean to the consumer? How is bad quality promoted? A drug should act for what it is prescribed. Thus aspirin bought for say, relief from headache should actually do so. We shall assume that the diagnosis of the doctor is correct. When one stores the drug in a cool, dark place, as many medicines are supposed to be, it should still be effective when one has a headache the next time around. The aspirin should not disintegrate as it is wont to if it is not made properly. Aspirin absorbs water (is hygroscopic) and can turn into powder if not stored properly.

All drugs have a declared shelf life between 18 months to five years. A consumer has a right to expect that a well-manufactured drug is effective for the period of its shelf life. Also during this period, when it says 500 mg on the label it should continue to have 500 mg or near that amount during its shelf life. The drug should easily dissolve in the blood stream (within 15 minutes for an uncoated tablet and within 60 minutes for a coated tablet) should not be too hard or too brittle; should not develop fungus or any kind of spots or get chipped (become friable) at the edges or broken by normal handling. Similarly a syrup, IV fluid or injection should not have any foreign particles floating in it or develop fungus or any other chemical reaction with its other constituents or with its container.

A manufacturer ensures quality by taking several steps as perceived by the consumer. In addition, manufacturers are expected to test for several chemical, physical, biological and other parameters including factors like appearance or smell. Acceptable standards are prescribed for all these in Indian Pharmacopoeia (IP) or British Pharmacopoeia (BP) or USP or pharmacopoeias of Europe, the WHO, etc. A drug manufactured as per IP is expected to follow standards prescribed in IP. These standards are checked for each and every raw material and excipients like binding agents that go into the making of a drug. Additionally, tests are carried out for disintegration, weight variation, friability, hardness, etc, during the process of manufacture, say every 15 minutes, and finally from a suitable sample of the entire batch after manufacture.

In addition to ensure that the drug 'behaves' during its life time there are ways of measuring and predicting stability of the drug. And most obviously, as a part of post-marketing drug surveillance, samples need to be picked from the market and tested for quality.

Unacceptable quality of a drug, and therefore liable to be rejected by manufacturers, is when any one of the, say, 25 parameters that define the quality of a drug – its principal constituent and its excipients included – does not meet the accepted standards as specified in the respective pharmacopoeia. Quality of a drug is also defined by the mode of packaging and the material used (glossy and attractive packaging is not always good quality).

In addition a whole set of practices called Good Manufacturing Practices (GMP), are recommended for putting into practice that

ensure quality of drugs. GMP is largely common sense, cleanliness and hygiene and some systematic documentation to ensure the same. Again, this does not always mean air conditioning in every room or dressing and behaving at every stage like an astronaut handling germs from Mars. Quality comes with an attached cost. However it is not very costly to be quality conscious. Quality, like honesty, in the final analysis is an attitude of mind.

How is Bad Quality Promoted?

There are a variety of ways substandard, sub-therapeutic and spurious drugs get promoted in the market. These are some of the ways: (1) By ignoring basic manufacturing requirements as indicated above, that is negligence, poor ethics and a 'chalta hai' (will-do) attitude. (2) By making drugs at the lower end of the tolerance limit allowed: A 500 mg paracetamol tablet would be passed in quality control if it has the active ingre-

Table 1: A Comparison of Tender Rates and Retail Market rates

No	Drug Name (1)	Name of Firm (2)	Tender (3)	Unit Rate (4)	Manufacturer (5)	Retail Market Price (6)	Overprice Index Col (6)/(3) (7)
1	Albendazole Tab IP 400 mg	Cadila Pharmaceuticals P Ltd	22.60	10×10 tablets	Torrent	1190.00	52.65
2	Bisacodyl Tab IP 5 mg	Lark Laboratories (I) Ltd	16.50	10×10 tablets	German Remedies	717.00	43.45
3	Alprazolam Tab IP 0.5 mg	Bal Pharma Ltd	3.50	10×10 tablets	Sun Pharma	141.50	40.43
4	Diazepam Tab IP 5 mg	Pharmafabricon/LOCOST	3.05	10×10 tablets	Ranbaxy	92.50	30.33
5	Folic acid and Ferrous Tab NFI	Aurochem India P Ltd	5.89	10×10 tablets	Smith Kline	148.50	25.21
6	Amylodipine Tab 2.5 mg	Lark Laboratories (I) Ltd	9.10	10×10 tablets	Lyka	148.50	16.32
7	Vit B Complex Tab NFI	Medibest Pharma P Ltd	7.20	10×10 tablets	Pfizer (Becosules)	112.60	15.64
8	Propranolol Tab IP 40 mg	Unicure (India) P Ltd	7.89	10×10 tablets	Cipla	120.00	15.21
9	Nifedipine Tab IP 10 mg	Comprehensive Medical Service	6.00	10×10 tablets	Torrent	88.20	14.70
10	Atenolol Tab IP 50 mg	Intermed Laboratories	16.00	14×10 tablets	Dabur	205.00	12.81
11	Diclofenac Sodium Tab IP 50 mg	Sarvodaya Laboraotory	8.60	10×10 tablets	Unique	108.50	12.62
12	Diclofenac Sodium Tab SR 100 mg	Paris-Dakner	15.82	10×10 tablets	Unique	186.00	11.75
13	Calcium Lactate Tab IP 300 mg	Sipali Chemicals	5.20	10×10 tablets	Sandoz, Carbonate	56.00	10.76
14	Diazepam Inj IP 100 mg/2 ml	Endoven Products	0.85	2ml AMP	Ranbaxy	9.11	10.71
15	Amitriptyline Tab IP 25 mg	Pharmafabricon	13.00	10×10 tablets	Merind	139.00	10.69
16	Ciproflaxacin Tab IP 500 mg	Ajanta Pharma Ltd	77.00	10×10 tabs	Albert David	681.80	8.85
17	Indomethacin Cap IP 25 mg	Atra Pharmaceuticals	13.40	10×10 caps	Jagsonpal	115.00	8.58
18	Amoxycillin Cap IP 250 mg	Crips Laboratories Ltd.	79.00	10×10 caps	Cipla	650.00	8.23
19	Albendazole Suspension USP 400 mg/10 ml	Mount Mettur Pharmaceuticals	2.07	10ml bottle	Khandelwal	16.50	7.97
20	Salbutamol Sulphate Tab IP 4 mg	Rakod Laboratories	6.60	10×10 tablets	Cipla	51.80	7.85
21	Lithium Carbonate Tab IP 300 mg	Lark Laboratories (I) Ltd	14.90	10×10 tablets	Torrent	109.00	7.32
22	Domperidone Tab 10 mg	Unicure (India) P Ltd	27.99	10×10 tablets	Torrent	199.00	7.10
23	Imipramine Tab IP 25 mg	Unicure (India) P Ltd	11.30	10×10 tablets	Torrent	59.00	5.22
24	Haloperidol Tab IP 1.5 mg	Micro Labs Ltd	15.79	10×10 tablets	Torrent	70.00	5.00
25	Norfloxacin Tab IP 400 mg	Brown & Burk Pharmaceuticals	96.99	10×10 tablets	Ranbaxy	470.00	4.85
26	Doxycyline Cap IP 100 mg	Ambuja Laboratories Ltd	63.00	10×10 caps	Jagsonpal	290.00	4.60
27	Paracetamol Tab IP 500 mg	Ambuja Laboratories Ltd	13.14	10×10 tablets	Smith Kline	58.80	4.47
28	Cephalexin Cap 250 mg	21st Century Pharmaceuticals	127.00	10×10 caps	Dabur	540.00	4.25
29	Omeprazole Cap IP 20 mg	Hindustan Tablets	86.00	10×10 caps	Cipla	360.00	4.19
30	Phenytoin Sodium Tab IP 100 mg	Unicure (India) P Ltd.	10.90	10×10 tablets	Cipla	44.29	4.06
31	Nifedipine Cap IP 5 mg	Micron Pharmaceuticals	15.48	10×10 caps	Cipla	50.60	3.96
32	Chloropromazine HCl Tab IP 100 mg	Intermed Laboratories	33.85	10×10 tablets	Rhone Poulenc	117.00	3.46
33	Pheniramine Maleate Sy USP 15 mg/5 ml	Dravida Nadu Drugs & Pharmac	3.48	50ml bottle	Hoechst	12.00	3.45
34	Glypizide Tab IP	Alfred Berg & Co	26.69	10×10 tablets	Wallace	85.00	3.24
35	Multivitamin Tab NFI Formula	Intermed Laboratories	15.65	10×10 tablets	Various companies	50-100	3.19
36	Dexamethasone Tab IP 0.5 mg	Alfred Berg & Co P Ltd	8.50	10×10 Tablets	Wyeth	26.50	3.12
37	Ranitidine HCl Tab IP 150 mg	Lark Laboratories (I) Ltd	31.20	10×10 tablets	Lyka	91.30	2.93
38	INH Tab IP 300 mg	Comet Pharmaceuticals P Ltd	17.00	10×10 tablets	Pfizer	49.28	2.90
39	Carbamazepine Tab IP 200 mg	Unicure (India) P Ltd	61.72	10×10 tablets	Torrent	178.20	2.89
40	Ibuprofen Tab IP 400 mg	Bharat Parenterals	23.43	10×10 tablets	Cipla	67.40	2.88
41	Betamethasome Tab IP 0.5 mg	Intermed Laboratories	13.83	10×10 tablets	Glaxo	38.20	2.76
42	Primaquine Tab IP 2.5 mg	Medibest Pharma P Ltd	11.00	10×10 tablets	Inga	38.00	2.73
43	Cephalaxine oral dry suspension 125 mg/5 ml	Dravida Nadu Drugs & Pharmac	8.00	30ml bottle	Biochem	21.50	2.69
44	Aspirin Tab IP 300 mg	Paris-Dakner	8.30	10×10 tablets	Reckitts (Dispirin)	22.10	2.65
45	Co-Trimoxazole oral suspension IP	Jerpan Remedies	4.10	50ml bottle	Wellcome	10.81	2.64
46	Choloroquine Phosphate Tab I 250 mg	Atra Pharmaceuticals	34.00	10×10 tablets	IPCA	89.40	2.63
47	Ciprofloxacin Inj IP	Shri Sai Baba Pharmaceuticals	6.75	100ml bottle	Torrent	17.60	2.60
48	Metronidazole Tab IP 200 mg	Goa Antibiotics & Pharmacet	15.50	10×10 tablets	Unique	39.30	2.54
49	Ibuprofen Tab IP 200 mg	Sardodaya Laboratory	13.40	10×10 tablets	Knoll	33.70	2.51
50	Co-Trimoxazole Tab IP 80 mg + 400 mg	Crips Laboratories Ltd	31.00	10×10 tablets	Wellcome	77.20	2.49
5	Frusemide Tab IP 40 mg	LOCOST	13.49	10×10 tablets	Hoechst	33.30	2.47
52	Pyrazinamide Tab IP 500 mg	Unicure (India) P Ltd	137.90	10×10 tablets	Lupin	324.30	2.35
53	Ethambutol Tab 800 mg	Lark Laboratories (I) Ltd	134.50	10×10 tablets	Lupin	306.60	2.28
54	Rifampicin Cap IP 150 mg	Axon Drugs P Ltd	102.00	10×10 caps	Novartis	225.00	2.21
55	Rifampicin Cap IP 450 mg	Pure Pharma Ltd	279.00	10×10 caps	IDPL	614.00	2.20
56	Digoxin Tab IP 0.25 mg	Atra Pharmaceuticals	27.20	10×10 tablets	Wellcome	58.50	2.15
57	Streptomycin Inj IP 0.75 mg/vial	Vivek Pharmachem (I) Ltd	3.56	5ml Vial	Sarabhai	7.24	2.03
58	Paracetamol Syrup IP	Paris-Dakner	3.42	60ml bottle	Smith Kline	6.70	1.96
59	Ethambutol Tab IP 200 mg	Aurochem India P Ltd	34.45	10×10 tablets	Cadila	66.50	1.93
60	Verapamil Tab IP 40 mg	Micro Labs Ltd	36.79	10×10 tablets	Themis	50.20	1.36
61	ORS Powder IP	TSAR-Pharmaceuticals Ltd	1.61	Pouches	Merck	9.97	0.19
62	Phenobarbitone Tab IP 30 mg	Embiotic Laboratories P Ltd	7.11	10×10 tablets	not available		
63	Folic Acid Tab IP	Sarvodaya Laboratory	3.94	10×10 tablets	not available		
64	Chlorpheniramine maleate tab IP 4 mg	Sarvodaya Laboratory	2.95	10×10 tablets	not available		

dient between 450 to 550 mg (± 10 per cent). During its shelf life the 450 mg tablet's potency may decrease and may not act as desired. (3) By inappropriate packing: for instance, water absorbing drugs like aspirin and ethambutol should be protected from high humidity during manufacture and storage during the entire life of the drug. (4) By committing criminal acts like putting 'haldi' powder (turmeric) for tetracycline or sugar pill for calcium lactate. They harm the patients by not acting at the time of need. Again careless manufacture in specially IV fluids and injections have been known to kill. (5) By consciously putting unnecessary products in the market and claiming undue benefits for them. (This can happen with essential drugs also when companies claim benefits not warranted by scientific research). Some addictive substances like alcohol may be added in tonics, and the tonic as a whole is then claimed to be a stimulant. Or promoting substances that are sedatives but have the side-effect of increasing appetite; the drug is then marketed as an appetite stimulant. (6) By trying to bribe drug authority and other officials, and succeeding in evading compliance of desirable manufacturing practices. Also trying to induce doctors to prescribe one's own products, by influencing medical college departments for favourable research reports, by denying the efficacy of cheaper and safer alternatives, bad quality is ultimately promoted in the system. Everybody loses in the process. (7) By trying to come into the market for short-term purposes only: say, merely to fulfill an export order or a government order of, say, Rs 10 crore. This can be done by loan licence manufacture and then disappearing (the so-called fly-by-night syndrome). Every manufacturer has an obligation to disclose sources and uses of funds, balance sheets, details about promoters and who is behind the company. In short, manufacturers need to be accountable to the public.

Over-Price Index

Columns (2) and (3) in Table 1 give the lowest tender rates quoted in the TNMSC tender of 1998-99 that was finalised around August 1998. All TNMSC tender rates are for strip/blister packs. Columns (5) and (6) give the retail market price of an equivalent formulation, also in blister/strip packs, as given in the October 1998 issue of the *Monthly Index of Medical Specialities* (*MIMS*, India). Column (7) is the ratio of the retail price to the lowest tender price.

Column (7) thus is an indication of the extent of over-pricing. Admittedly, tender prices are for bulk quantities whereas retail market prices of drugs include marketing costs, commissions to the retailer-wholesaler network, etc. But nobody sells, especially for transparent government tender and purchase systems, at a loss. So tender rates quoted are the viable prices with absolutely minimal post-manufacturing markups, say from 0.5 to 5 per cent. We argue therefore that the ratio in column (7), we choose to call it the over-price index, is a good indicator of over-pricedness of a product. Simply put albendazole – effective against certain types of worms – or rather its leading branded versions in the retail market, sell at 52.65 times, or 5265 per cent, over the tender price quoted.

We need to draw the line between reasonable markups and over-pricedness. Assuming a very liberal 250 per cent post-manufacturing markup as reasonable, we see only 20 per cent of the 60-odd products examined fall in this category. The second category of over-price index, 2.5 to 5, amount to another 40 per cent while yet another 50 per cent of the products examined have a ratio of 5 and above. The top category is of course occupied by the likes of albendazole, bisacodyl, alprazolam, diazepam, etc. Generally psychotropic products tend to be over-priced as also products for cardiac conditions and hypertension (high BP). Iron-folic acid, a most important drug for the bulk of Indian women and children suffering from iron deficiency anaemia, is tragically not only over-priced, but is practically impossible to get as plain iron-folic acid tablets in the retail pharmacy. The product of Smith Kline compared here is Fesovit spansule, the nearest equivalent, which is unfortunately capsuled instead of being tabletted – the latter would have lowered the price somewhat. Likewise, one would be hard put to find simple, folic acid (tablets and syrup) or say ferrous sulphate (iron tablets and syrup) – they generally come in fancy and irrational multi-ingredient combinations; some of the so-called iron syrups, not analysed here, are horribly over-priced and irrational (for instance, Dexorange).

A caveat about albendazole. The drug company, Cadilla, manufactures the basic drug, so it may be argued that Cadilla is able to quote a rock-bottom price for the formulation. The next lowest quotations for albendazole in the TNMSC tender of 1998-99 are as under: Rs 62 (Veco Pharma); Rs 72 (Atra Pharmaceuticals); Rs 73 (21st Century Pharmaceuticals); Rs 73.88 (Hindustan Tablets), etc. Therefore one would argue that these are more reasonable tender prices from pure formulators, i e, companies which are not also manufacturers of the basic drug. Costing data of LOCOST, a not-for-profit trust and formulations manufacturer, tends to support that around Rs 70 per 100 tablets (strip or blister pack) of albendazole (400 mg) is a reasonable tender price. So the over-price index should be around 15, which is still absurdly high.

Table 2: Comparison of Prices of Drugs Marketed by Glaxo in India and Sri Lanka

(in Sri Lankan Rs)

Brand	Indian Price	Sri Lankan Price	Price* Increase (Per Cent)
G BETNASOL N (GLAXO) 5 ml	13.77	173.75	1261
G EMENEO (ALLERGAN)	59.91	158.98	265
G LIQUIFILM TEARS (ALLERGAN)	29.16	197.07	675.8
O C ZOVIRAX	64.8	204.00	319
G PRED FORTE (ALLERGAN) 3 ml	61.80	694.75	1072
G CELESTONE 10 tabs	2.86	208.40	1200
G BETAGEN (ALLERGAN)	64.8	314.90	462
G COMPLAN CHOCOLATE 450 gm	181.44	346.50	190
VENTOLIN INHALER 100 mcg (200 dose)	110.16	368.00	334
VENTOLIN RESPIRATOR SOL 10 ml	25.92	135.00	520
VENTOLIN INJECTION 1 ml AMP	5.67	81.30	1433
VENTOLIN INJECTION 5* ml AMP	5.67	406.50	7100
BECOTIDE ROTACAPS 100 mcg 10 caps	12.02	59.15	121
CELIN PASTILLS 500 mg	13.77	72.50	322
OSTACALCIUM SYRUP 200 ml	43.36	74.75	164
BETNASOL PLAIN DROPS 5 ml	16.20	144.00	888
BETNASOL EYE/EAR DROPS 5 ml	13.77	165.00	1198
SORBEX 100's	21.06	38.90	184
IMURAN TABLETS 50 mg 10s	10.13	28.11	277
MIGRIL TABLETS 10s	31.59	117.70	356
SEPTRIN TABLETS 10s	12.96	50.53	389
SUDAFED EXPECTORANT 200 ml	17.82	90.25	506
ZOVIRAX CREAM 5 per cent 2 gm	81.00	646.50	798
ZOVIRAX TABLETS 200 mg 5s	124.00	460.00	369

Note: * Sri Lankan market retail price/Indian market price in SLR × 100.
Percentage price in SLR conversion rate: One Indian Rupee = 1.62 SLR.

Source: *The Island*, February 8, 1999, quoted in the e-drug conference communication, <e-drug@usa healthnet.org>, of February 15, 1999, on Sri Lankan Drug Pricing.

Let us look at the other products in the over-10 over-price index category (over-price index in parentheses):

Diazepam (30.33) is a much misused and sought after sleeping tablet. Amylodipine (16.32) is used in cardiac conditions. Vitamin B-complex (15.64) is an irrational drug by itself with its nearest equivalent, Becosules, being one of the top 10 selling products in the country. Propranolol (15.21) is used for irregular heartbeats; nifedipine (14.70) used in coronary care is also over-priced because the branded product is capsulated; while atenolol (12.81) is also used for cardiac care and hypertension. Not surprisingly, drugs for most of these socially perceived diseases of the affluent. tend to be priced higher.

Some other over-10 over-price index products are: diclofenac sodium (12.62), an anti-inflammatory drug often misused as a pain-killer; calcium lactate (10.76) a most necessary nutritional supplement often not available as single ingredient at reasonable prices; and amitryptyline (10.69), an antidepressant. Even oral rehydration salt (ORS) has an over-price index of 6.19.

Some Questions

The vast differences in pricing – or if you want to call it differential pricing strategies – raise several questions.

Firstly, is it ethical for industry to market drugs at such vastly different prices? Is the government justified in allowing such vast differences to prevail? What is the real cost of manufacture? What is the real cost of marketing? Assuming government supply prices are the lowest, they set a benchmark from which legitimate profits can be calculated. What ought to be then the legitimate markup? It obviously means companies operate at vastly different efficiencies. Is it justified to take as benchmark the prices of larger, less efficient companies for, say, price control by the National Pharmaceutical Pricing Authority (NPPA)?

It is clear that free market principles operate in segments. There is perhaps true competition in (transparent) government tender systems. For the rest, drug prices are what the markets and market segments can take, with some making a virtue of a higher priced brand-named drug as somehow better than a lesser priced drug, brand or generic. In the latter case, the market 'signals' are unpredictable: drug industry along with medical profession can fool a great many people much of the time. An interdisciplinary cartel if ever there was one. Witness for example, that various IV fluid packs like dextrose were sold a couple of years back by IV fluid manufacturers to wholesalers at around Rs 5 per unit and by the time retailers offloaded them on patients it would become Rs 30 and more. The lately revised ceiling of Rs 22 fixed by NPPA (current manufacturers price around Rs 7.50 for 540 ml packs) is a bit of relief though not much for the consumer whose doctor insists on putting the patient on IVs at the slightest pretext.

A second outstanding example is the vast differential pricing of albendazole: Rs 0.22 (government tender); Rs 1 (not-for-profit drug manufacturer); Rs 10 (retail market).

A Sri Lankan Aside

If this is one type of over-pricing, let us recollect another. It is well known that the same drug company will sell its own products at vastly different prices in a foreign market. Glaxo's Zantac (ranitidine) is one notorious example which sells at vastly different prices in the US, Pakistan, India and Indonesia. For instance, in 1995, a strip of 10 300 mg tablets of Zantac in Pakistan was selling at Indian Rs 260.40, in the US at Rs 1,050.70, and in UK at Rs 484.42 while equivalent Indian brands like Torrent's Ranitin were selling at Rs 18.53. Even in terms of purchasing power parity, these differentials do not make sense. Surely US $ 30.02 (equal to Indian Rs 1,050.70 in 1995) could buy more in the US in 1995 than what one could in India with Rs 18.53.

To further illustrate this closer home, a recent front page article in the Sri Lankan newspaper, *The Island*, of February 8, 1999, tried to show how drugs manufactured by Glaxo (India) are sold in Sri Lanka by Glaxo Wellcome Ceylon at prices over 7000 per cent higher. Table 2 gives some details. The table compares the Indian market price of drugs produced by Glaxo, converted to Sri Lankan rupees (SLR) with retail price of these drugs sold by Glaxo Wellcome Ceylon.

It was the article in *The Island* of December 13, 1998 by C R Siemon, a leading eye-surgeon, that had roused curiosity and raised the important question about the difference in drug prices in Sri Lanka and India. Siemon in his article had compared the Sri Lankan prices and the Indian market prices of some drugs and it was clear that the local prices of drugs sold by Glaxo Wellcome Ceylon were exorbitantly high when compared to the Indian market prices.

> C R Siemon when contacted said that he had highlighted high prices of vital drugs because the patients found it difficult to buy these drugs at these prices. "It costs a patient around Rs 500 a day for medicines which many cannot afford. It is my duty as a doctor to ensure that patients can afford the drugs I prescribe them to buy". he said. Glaxo Wellcome Ceylon has yet to respond to the charges levelled against them in his article. Weerasuriya, Professor of Pharmacology also wrote in connection with the article by Siemon. When contacted he asked "Why has Glaxo not responded. I am awaiting a response from them". However, when the Marketing Director of Glaxo Wellcome Ceylon was contacted by *The Island* and asked to comment on the vast difference in prices of drugs sold in India and Sri Lanka, said "No comments".
>
> "Glaxo Wellcome are manufacturing the same drugs in India and selling them at a lower price in India. They are preventing us from buying these drugs from the Indian domestic market at a lower rate" alleged an official of the State Pharmaceutical Corporation (SPC).
>
> One official posed the question: "Most of the drugs that are used in local hospitals are Indian drugs, if the quality is inferior how are patients cured?" Therefore it is evident according to them that there is no difference in the drugs that Glaxo Wellcome are manufacturing in India and the drugs they are marketing in Sri Lanka.
>
> An official also said that most multinational companies are based in India because costs are low in this part of the world.
>
> (Quoted in e-drug conference, op cit. Original source: *The Island*).

What Can We Learn?

What is the moral of this story? What can we learn from all this? It depends. If you are a free marketwallah, you may clamour for more free market, 'opening' up, etc. But we have seen, competition is effective only in the limited case of transparent government tendering and supply. In the retail and wholesale market, the same drug can be available at a range of prices. And if you believe a costlier paracetamol is more effective than a cheaper one, you have freedom to 'choose'.

The Sri Lankan example, if anything, illustrates the prevalent price distortions across the developing world, and how lack of political will on the part of the national government can easily let matters worsen. An ominous portent of things to come once India has exclusive marketing rights (EMRs) and patents and compulsory licensing in place. Globalisation does not seem to discipline companies into selling at even reasonably comparable prices in neighbouring countries.

As far as India is concerned, another way of looking at this is: Use the prices of transparent government drug supplies as the benchmark of lowest possible prices. Use these prices to fix upper limits on reasonable profits. An upper limit for drug prices is a must to make health care affordable. And do not listen to the scare-mongers. Foreign companies never ran away from Bangladesh for the last 17

years when price control has been in force (in addition to a policy of no brand names and a restricted list of drugs). A level playing field, one would think, where one player is the consumer.

Pricing and AIDS-like Diseases

Since nobody nowadays takes home-grown advice seriously, let us end this discussion by quoting a 'phoren' source, to wit. AIDS activist David Scondras, who is also a political and public-policy expert, from Boston, US (quoted by Richard Laing in the e-drug conference, <e-drug@usa.healthnet.org>, Feb 8, 1999. The full original piece of Scondras is posted at <treatment-access@hivnet.in>):

> On an average, drugs manufactured in India are between 1,000 and 4,000 per cent cheaper than the same product in US pharmacies. Drug companies have pushed hard to stop India and other poor countries from making cheap copies of their life-saving medicines by including the curtailment of these practices in the international trade agreement, the GATT [see "GATT and the Gap: How to Save Lives," AIDS TREATMENT NEWS # 307, November 20, 1998]. By pushing for such international agreements on trade, public agencies and our government become accomplices to stopping medicines from reaching the poor.
>
> The costs of medicine depends on who makes it and where it is made. At the Taj Mahal hotel in Mumbai (Bombay), you can buy Hytrin, a sophisticated antihypertensive, for seven cents a tablet. A month's supply of the drug costs about $ 4.20. At a local pharmacy in Boston, the same drug from the same company costs $ 44 48, more than 10 times as expensive. And the Indian price is marked up on the order of 200 per cent.
>
> In Boston, ranitidine (the generic equivalent of Zantac, an H-2 blocker which helps you not make stomach acid) costs 42 cents for 150 mg. The same exact product at Taj costs less than 2 cents (1.79 cents). In other words, even the cheap, generic equivalent in the US is a mere 2246 per cent more expensive!
>
> In fact, most drug, including antiretrovirals, are very inexpensive to manufacture. Their prices reflect what the market will bear, not what they cost to produce. U.S. pharmaceutical firms buy the basic ingredients to antivirals in bulk from other countries at incredibly inexpensive rates.
>
> For example AZT (zidovudine) in bulk can be purchased as of December 1998 for 42 cents for 300 mg from the worldwide suppliers; this price reflects not only the profits to the manufacturer but also to the middleman bulk buyer. This drug is retailed at $ 5.82 at my local (CVS) pharmacy. This means that tableting, packaging, marketing and transporting of the medicine, plus profit, adds 1285 per cent to the basic price, already excessive. This ridiculous price cannot be justified except in terms of what the market will bear, as it bears no real relation to cost of production. An Indian company, Cipla, based in Mumbai, sells AZT in capsule form for $1.42 per 300 milligrams, and according to local experts, Cipla is accruing 2-3 hundred per cent profit margins with the drug. Yet they are selling it at less than a quarter of the price in the US!
>
> ...To provide antiretrovirals to the world, there would have to be a paradigm shift in our collective decision-making processes. There are choices. All of them are in the arena of public policy, not medical research. Under the present paradigm, governments have to either pay for extremely expensive drugs at very high prices and distribute them to the South (developing countries), ignore the 95 per cent of the world that cannot afford these costs, or take actions that would bring down the costs of the drugs. And before the creativity that might solve this public policy dilemma can be unleashed there would have to be an underlying shift in will _ a paradigm shift in which saving the developing world from unnecessary illness and death becomes a priority over short-term economic gains. Thus far, each alternative has been politically too costly. There are efforts being made but they are far too small even conceptually to put an end to a world of untreated disease.
>
> Treatable AIDS-related illnesses will not end until medicine is made available to everyone who needs it. And this requires an imaginative reshaping of the political and economic decision-making paradigm primarily a reshaping that moves us away from a system which defines values in terms of short term gains and takes a longer view of self interest. For in the end, a world full of disease is bad for business.
>
> ....data now suggests that certain old antiretrovirals used together can be as powerful as the famous pretties-inhibitor-based drug cocktails. Had we known this when they were first approved by the (US) FDA, we could have saved many lives. But the drugs were made by different companies and competition between them made it financially difficult for them to test their products together. Who would be liable for any problems? How would company secrets be kept? Who would benefit if the combination proved successful? Who would pay for it? These questions discourage collaborations between companies. The obvious long-term scientific benefits are overshadowed by the key question of short-term financial benefit to the stockholders of the companies involved.
>
> Interestingly, an effort was made in the midst of the HI epidemic to form a collaboration of private companies. It still exists, known by its acronym, the ICC (Inter-Company Collaboration for AIDS Drug Development), and it is trying to undertake joint efforts. Unfortunately, it has tended to prove the difficulty of making this research system work. Its very failure, in efforts that have been without question supported at the highest levels of each company, underlines the difficulty inherent in collaborative efforts between competitors in a market-driven context.
>
> ...We have engendered a culture that increasingly values nothing but money and its accumulation nothing but money and its accumulation. Our public actions increasingly serve the money-making activities instead of controlling and balancing them with regulations and investments in the public interest. So the use of old drugs in combination to control HI was not developed. The private sector did not look at the combination because there was no likelihood of immediate financial return to a specific company and there were serious legal, marketing, and other problems in cross-company collaboration.
>
> The only other actor that could have checked out the combination was the federal government. But there was no agency empowered to find a cure to HI – to cut the red tape, to put in place strategic plans, to force collaboration or to follow anything but academic whims and hunches that make up the basis of the efforts of the only US agency directly empowered to find answers: the National Institutes of Health. As a result many thousands of people have died and thousands more have used up the effectiveness of these drugs in the less useful context of sequential monotherapies. Who knows how many mothers, fathers, sisters and brothers of the rest of the world have died at the hand of this new god.
>
> It is often pointed out that at the time 'we did not know better'. However, had our decision to stop HIV followed a strategic plan analogous to our effort to put someone on the moon, there is no question but that the value of using drugs in plausible combinations would have been investigated immediately. Instead, we allowed the 'private sector' to dictate the agenda. The profit motive has been a critical part of getting treatments developed. Without it, much of the effort to locate compounds with antiviral potential might not have happened so quickly. But, like all motives, it has shortcomings. To not admit this and compensate for them in a coherent, effective way is to burden the world unnecessarily.
>
> The two worlds of North and South are under one god and they suffer from the limitations of that god. These result from the sociological shift from the researcher as searcher of truth and the doctor as bringer of medicine, to the researcher as part of drug development and the doctor as part of the drug sale force. Most importantly, both reflect the role governments have chosen: to facilitate the needs of the invisible hand that has reached the status of a god, rather than analyse what the public needs, and temper the god to serve our common interests.

[The author wishes to thank T Srikrishna for going over an earlier draft of the paper.]

Raising Agricultural Productivity in Gujarat

Bhupat M Desai
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Agricultural production and productivity have experienced a declining trend in Gujarat. A workshop on this subject in Ahmedabad last year yielded recommendations on specific themes with the policy paradigm shifts required for each of them.

THE Indian Society of Agri-business Management, Ahmedabad, and Development Support Centre, Ahmedabad, an NGO, organised on August 6, 1998 a brain-storming workshop at the Indian Institute of Management, Ahmedabad, to identify recommendations for raising agricultural productivity in Gujarat. This problem was selected because both agricultural productivity and production have a declining trend in Gujarat as in India. The workshop was innovative in that it envisaged discussion on the observations of panelists that consisted of farmers, agricultural scientists and farm input managers. The participants also included government officials, academicians, NGOs, and farm input and credit agency representatives. Prior to the workshop, two papers both in English and Gujarati were circulated to these participants. These two papers were 'Developing Agriculture in Gujarat' by Bhupat M Desai and N V Namboodiri (*Economic and Political Weekly*, March 29, 1997) and 'Wheat Seed Research and Farmers' by Anil C Shah.

The recommendations that followed from the workshop centre around the following seven themes with policy paradigm shifts required for each of them.

(1) Agricultural 'Strategy' for Raising Productivity, (2) Agricultural Research and Extension System Policy, (3) Seeds Policy, (4) Policies for 'Complementary' Farm Inputs and Resources, (5) Land Consolidation and Tenancy Policies, (6) Government Expenditure Policy for Agriculture, and (7) 'Organisational Strategy' for 'Local' Action.

Agricultural 'Strategy' for Raising Productivity

The 'strategy' for raising agricultural productivity must be technical change (i e, scientific knowledge-based farming) that is both seed and 'complementary' farm inputs and resources-based rather than only seed or only resource-based. Such a 'strategy' follows from three factors, namely,

(a) higher yields per hectare are achieved by the farmers who practise scientific agronomic practices, besides using new inputs and 'complementary' resources in which new technology is embodied; (b) growth in per hectare yield is constrained due to gap in farmers' and scientists' knowledge about new technology; and (c) this yield-based growth is also constrained when access to 'complementary' farm resources is limited.
This 'strategy' is consistent with the farming systems approach that emphasises farmers' all resources and all enterprises such as crops and livestock-farming.

Agricultural Research and Extension System Policy

Recommendations pertain to government investment/expenditure, reorganisation of this system, and manpower underlying it.

While government expenditure on both agricultural research (R and D) and extension must be significantly stepped up, priority be accorded to the latter in the short-run to bridge the gap in the knowledge of farmers and scientists.

But both agricultural research and extension must proactively become farmer-friendly and farmer-partnership-oriented.

Agricultural research so reorganised should conduct that research which provides solutions to farmers' location specific problems. These problems, for example, for major crops/varieties in Gujarat require research on response of per hectare yield to

(a) various soil and moisture regimes, besides water stress, (b) furrow as against complete field ploughing, (c) plant population, (d) transplanting as against broadcasting method of sowing, and that of application of other inputs, (e) type and dosages of nutrients required under different soil and moisture regimes, (f) fertilisers plus compost manure (and just not farm yard manure), (g) hand weeding as against inter-culture, (h) different varieties under major soil and moisture typologies, (i) crop rotation, and (j) inter-cropping
Three other areas requiring attention are (i) evolving location-specific new varieties that are drought, pest and duration-sensitive, (ii) reducing the time taken in this research, and (iii) introducing on-farm testing trials on farmers' fields.

Agricultural extension that is farmer-friendly and collaborative also should provide solutions to farmers' problems. This should be done by changing content, medium, and manpower of extension service. The content of this service must flow on the above stated, 13 problem-areas of research, besides the selection of varieties and 'complementary' farm inputs and resources application. The medium of this service could be farmer-to-farmer contact, VLW to farmer contact, demonstration trials, visits to research farms, audio-visual vans, and mass media like leaflets, (local) newspapers, and television. Extension manpower needs upgradation in its training, status, and farmers to extension worker ratio which at all-India level is about 800/1,000 to make extension services geographically more broad-based and quality-oriented. Furthermore, link between extension service and scientists being very weak farmers' representatives must have a direct link with the scientists.

Seeds Policy

Recommendations pertain to government expenditure, regulation, and reorganisation of seed industry.

Seed industry in both public and private sectors must also be farmer-friendly. In crops like groundnut and cotton, this industry needs to be promoted urgently. Government expenditure on public sector seed industry must be stepped up to enhance its capacity and quality of services. Timely, adequate, and quality seeds availability being the hallmark of any seed organisation, both public and private sectors in this industry must be made more accountable to an independent regulatory agency. Furthermore, certification and testing for quality by this agency must be mandatory for the private sector also. Yet another policy required is to prescribe maximum retail price of seed. The former is because of adulteration that seems to be quite rampant. And the latter is because at present the price of seeds for the same variety in some crops from the private sector is five times or so the price of the public sector seeds. Lastly, all seed organisations must promote knowledge about use of seeds including replacement rates as an input rather than exclusively concentrating on sale of larger quantity of seeds.

Policies for 'Complementary' Farm Inputs and Resources

Although the panel-based discussion was organised for only two 'complementary' inputs of irrigation-water and fertilisers, the panelists as well as participants made observations on other 'complementary' resources such as farm yard and compost manures, bio-agents, watersheds, pesticides, electricity and farm implements and equipments like drip, sprinkler, and improved small implements (such as seed-cum-fertiliser drill). Recommendations are presented separately for irrigation and watersheds, fertilisers, organic nutrients and pesticides, and electricity and farm implements. These recommendations relate to government expenditure, reorganisation of agencies, regulation by these agencies, and pricing of these inputs.

Irrigation and Watersheds: Government expenditures on both of these must be significantly stepped up, besides accelerating the efforts to complete Sardar Sarovar Project. Some of these public expenditures must be on modernisation of the existing canal irrigation projects to alleviate problems of water-logging, soil salinity, etc. These public expenditures will crowd-in private (i e, farmers') investments which may be financed by the rural credit institutions. These institutions may also promote credit in areas where watersheds are completed to further develop land and other associated benefits. NGOs and relevant government departments may also be associated for this.

On reorganisation of the agencies the first recommendation is that they should all be more farmer-friendly and collaborative with farmers' involvement in both design and implementation of the projects. Secondly, the farmers' organisations may also collect irrigation dues, betterment levy, etc. These funds should remain with the irrigation authorities to assist them to improve their O and M tasks, as in Paiticipatory Irrigation Management Projects. Thirdly, irrigation authorities, agricultural departments and extension agencies should improve their co-ordination and interdependency to encourage farmers to adopt more efficient irrigation practices as an input of knowledge. Fourthly, such organisational change is also necessary for reaping the full benefits of watersheds already developed.

On regulatory functions of irrigation authorities the needs are twofold: One of these is updating the data on groundwater potential, and the other is to control the overexploitation of this potential through appropriate both persuasive and coercive measures. Moreover in the command areas of canal irrigated projects conjunctive use of water may also be proactively promoted.

Pricing of irrigation from surface versus groundwater sources lacks parity. Some sort of better parity in pricing may be encouraged through prescribing location-specific maximum retail price for well irrigation and rationalisation of canal water charges. The latter is also required to promote more scientific irrigation practices.

Fertilisers, Organic Nutrients and Pesticides: Four most urgent recommendations on these 'complementary' inputs are: One, the knowledge gap between scientists and input agencies must be bridged. Two, recommendations on the use of these inputs developed by the scientists for different soil-moisture regimes must be transmitted to the farmers through more proactive role of soil testing lab in various talukas to develop more sustainable increases in agricultural productivity. Three, while farmers are keenly aware about fertilisers and pesticides, they need fine tuning of their knowledge on scientific use of these inputs. Both the farm input agencies and extension-workers must proactively fill this knowledge gap considering this as one of the associated inputs. And four, government should encourage mass-based supply of organic and bio-nutrients to complement with fertiliser use. This should be co-ordinated actively with the dairy co-operatives network.

Two related recommendations on fertilisers are on its planning for supplies and pricing. On planning the supplies the demand targets should be more realistic by considering district rather than state-level data as a basis for estimation. On pricing the ad hoc approach to subsidy must be replaced by more sustained approach, besides prescribing location-specific maximum retail prices for de-controlled fertilisers so that more balanced NPK ratio emerges. Pesticides industry should explore aerial spraying when the pest attack is an epidemic, besides promoting use of pesticides on collective basis.

Lastly, government expenditure on rural roads network is necessary not just for integrating the villages with the rest of the state but also for timely delivery of inputs such as seeds, fertilisers, etc. And the credit institutions including co-operative banks must promote working capital credit at reasonable interest rates to the farm input distributors and dealers including village level primary credit co-operatives to accelerate adequate and timely supply of farm inputs.

Electricity and Farm Implements: Farm power sub-sector is critical for Gujarat's agriculture being relatively more dependent on groundwater-based irrigation. Government expenditure on this sub-sector therefore needs to be significantly stepped up. In the short run enhancing supply of electricity requires reducing transmission and distribution losses.

Encouraging sprinkler and drip irrigation by the farmers is essential for water-scarce areas and also for improving water use efficiency. While subsidies for these should be targeted to smaller farmers, institutional credit at reasonable interest rates to farmers must be made more broad-based for such private investments in irrigation.

On smaller but scientific hand and bullock-drawn farm implements such as seed-cum-fertiliser drill government should persuade GSFC, GNFC, IFFCO, etc, to enter into the business of manufacturing such implements since specialising in agriculture related diversification may be more beneficial than diversification in unrelated business products. Such implements improve farm input use efficiency.

Land Consolidation and Tenancy Policies

Consolidating fragments of land which are on the rise due to sub-division and population pressure must be accorded high priority for it would make investment and technology adoption more feasible, besides turning small-scale farming viable in general. State like Punjab, Haryana and more recently Maharashtra where this policy has been successful may be consulted to evolve policy suitable to the state. NGOs should also be associated with the implementation of this policy.

Legalising tenant cultivated farming should also be pursued as it would provide more enabling environment for raising agricultural productivity. Some guidelines for regulating minimum period of lease, eviction at will, etc, may, however, be necessary from the government

Government Expenditure Policy for Agriculture

What follows from the preceding discussion is that the government expenditure in agriculture must be aggressively stepped up. The sub-sectors identified for this are:

(a) Agricultural research and extension, (b) seeds industry, (c) irrigation and watersheds, (d) farm electricity, (e) rural roads, (f) selective farm input subsidies such as for fertilisers and micro-irrigation, and (g) equity support for co-operative credit institutions and RRBs.

Government expenditure on agriculture research and extentsion is presently used more on paying salaries with very little budget for research. This must be corrected by both rationalisation and increases in this budget. The latter is also because it

never formed 2 per cent of agricultural GDP that is internationally recommended.

Government expenditure for agricultural education and poverty programmes like IRDP and JRY must have location-specific sectoral integration such as with agriculture, irrigation and watersheds, rural roads, dairying, fisheries, etc.

These recommendations are also justified by the finding that under the Eighth Plan this expenditure was lower both in terms of allocation and utilisation in relation to total for the plan.

'Organisational Strategy' for 'Local' Action

The 'organisational strategy' for increasing agricultural productivity is that it must be farmer-friendly and farmer-collaborated in all the sub-sectors listed in the recommendations related to 'government expenditure policy for agriculture' above.

Operationalising this strategy also requires ongoing implementation committees at state, district, taluka and village levels. This committee must be represented by all the concerned line departments/agencies in government, agricultural scientists, farm input suppliers, eminent NGOs, and above all farmers.

Wherever such a committee already exists as, for example, in evolving agricultural research on cotton it must meet more frequently, besides aiming at bridging the gap in farmers' and scientists' knowledge on new technologies and alleviating farmers problems that impede raising agricultural productivity.

These committees at various levels must be chaired by an agency implementing agricultural development rather than revenue department.

The basic rationale for such 'organisational strategy' is that the increased government expenditure will *pari passu* have change in its organisation for implementation that is rooted in local action rather than in mere thinking or is state-capital-based.

Missionaries in Medical Care

Rama Baru

Missionary hospitals in India appear to be better distributed in those states which have comparatively good institutional and infrastructural facilities. Given that they are increasingly facing financial and human power constraints, they may have to look more closely at the distribution of their services.

ALLOPATHIC medicine was introduced by the British during the mid-18th century to essentially cater to the needs of their civilian and military population. The medical missions entered the Indian subcontinent during the late 18th century mainly in those regions which were directly British rule. The pioneers of Christian missionary work belonged to both British and American medical missions. The earliest among them was the London Missionary Society which started work in late 18th century in the Madras presidency. Some of the other major groups included the English Baptist Missionary Society and the Arcot Mission which was founded by the Scudders who later established the Christian Medical College at Vellore.

During the mid-19th century, the American Baptist Mission and the American Presbyterian Mission started medical relief work. Prominent among them were John Steele in Madurai, Rev John Newton of the American Presbyterian mission in Punjab and the American Methodist Episcopal Board in Nainital and Pithoragarh in Uttar Pradesh. During the same period zenana missionaries consisting of women doctors set up a number of hospitals for women and children. Women who trained as doctors in the UK and the US had few employment opportunities in their respective countries hence they opted to work in Africa and Asia with the missionaries. The early women missionaries came to India during the late 19th century. Table 1 shows the country of origin and the states where the women set up practice. There was an equal representation of both British and American missionaries who were largely located in the north (Table 1).

Women medical missionaries were largely limited to providing maternity and child health services which they perceived as a major need of Indian women. The efforts of the pioneers led to the establishment of the Lady Dufferin Fund which aided hospitals and dispensaries for women and children in Uttar Pradesh, Madhya Pradesh and West Bengal.

The motivations for doing medical work ranged from providing medical relief to gaining political mileage. As the report of the Christian medical work states,

> Besides being influenced by a need so universally prevalent, and by the need among some purdah women, some missions were led to the selection of a place by an additional motive – some saw in the medical work an aid to winning a way among the hostile tribes of the Frontier and of coming in contact with travellers from the closed lands beyond. [*The Ministry of Healing in India: Handbook of the Christian Medical Association of India*, Weselyan Mission Press, 1932:25-27.]

Apart from these reasons the location of hospitals were also determined by the presence of a large Christian community. Given the size of India and the varied motivations of medical missions, there were regional variations in the distribution of services. Available data on institutions for the late 1930s and 1940s show regional variations in the distribution of services. In 1937, 25 per cent of the mission hospitals were located in the Madras presidency followed by the Bombay presidency which had 13 per cent of the hospitals (Table 2). This trend continued through the 1940s and is seen even to the present day. Between 1937 and 1947 there was a decline in the number of institutions from 246 hospitals to 131. The decline was partly due to the partitioning of the Indian subcontinent whereby parts of Punjab and Bengal became a part of Pakistan and Bangladesh respectively. However this could not explain the sharp decline of institutions in the Madras Presidency from 62 in 1937 to 38 in 1947. The decline between 1937-47 was barely restored by the marginal growth of institutions from 1947-96 with 249 hospitals. This was approximately the figure for the late 1930s.

The reason for the slow and uneven growth of mission hospitals is probably the inadequate financing from the west. Even during the late 19th century, 51.3 per cent of financing in mission hospitals was through self-support, in the form of user fees. The percentage of self-support varied from a high of 68 per cent in Assam to 65 per cent in Bombay to 33 per cent in Punjab (Table 3). The need for self-support arose largely due to reduction of funding from British and American medical missions which were facing a financial crunch following the economic depression of the 1930s and the second world war. The limited foreign aid was earmarked for capital expenditure but most mission hospitals faced tremendous problems in meeting the recurring expenditures. In order to meet recurring expenditures, many of them started introducing user fees as a form of self-support. As the Survey Committee in 1928

observed, "self-support is the goal that every institution conducted by medical missions has had to strive for. Funds from the sending churches have tended to diminish materially in recent years. On the other hand most hospitals have continued to grow in size and expand in their activities to meet the needs that opportunity provided. The additional funds thus required have had to come, in almost all cases, from increased fees" (pp 80-81).

The issue of user fees sparked off a debate within the mission hospital network. Many were of the opinion that by charging fees their charitable work was being undermined since the poorest were being prevented from seeking medical care. The debate among mission hospitals in the late 1920s is extremely pertinent and relevant in the present scenario since many mission hospitals do charge fees in order to keep up with rising costs of medical care and have to compete with the private sector for clientele.

Christian Missionary Work Today

Right from the late 1930s it is evident that there are regional variations in the distribution of mission hospitals and dispensaries. Under the Christian Medical Network which includes several denominations like Protestants, Methodists, etc, the dominant forms of provisioning are hospitals which outnumber dispensaries with a ratio of 3:1. There were 250 hospitals and 37 dispensaries under this network in 1996 (Table 3). Questionnaires were mailed to all member institutions under the Christian Medical Network in order to elicit details regarding date of establishment, bed strength and services offered. On the basis of the responses from different states, the bed strength of these institutions was calculated. There was a differential response rate across states. The percentage of institutions who responded in Gujarat was 60 per cent, 47 per cent in Uttar Pradesh, 40 per cent in Kerala, 39 per cent in Tamil Nadu, 36 per cent in Bihar and for the remaining states it was below 30 per cent (Table 3). Based on the response the bed strength was 7,642. The dominant form of provisioning under this network were hospitals which outnumbered the dispensaries with a ratio of 7:1.

The institutions were unevenly distributed across the country. Kerala had the largest percentage of hospitals (32 per cent) followed by Tamil Nadu with 15.3 per cent and Andhra Pradesh with 12 per cent. 86 per cent of dispensaries were located in Kerala while the remaining states have very few of them (Table 3).

There has not been much growth of Christian medical institutions in recent times. In a recent review, the CMAI has shown that a number of hospitals were closed down between 1947-97 in some states. In Andhra Pradesh more than 50 per cent of the hospitals had closed down while only seven new hospitals had been started. In Gujarat 55 per cent of the hospitals closed down, 25 per cent in Kerala, 42 per cent in Maharashtra, 66 per cent in Orissa, 77 per cent in Punjab, 75 per cent in Rajasthan, 47 per cent in Tamil Nadu, 37 per cent in Uttar Pradesh and 83 per cent in Bengal. Only in Kerala and Tamil Nadu there has been growth of new hospitals. This could well be due to a sizeable Christian population in both these states. In Kerala some Christian and Catholic denominations have also been politically powerful and may have played a role in reviving missionary institutions.

A major reason for closing down hospitals could be due to the financial crunch faced by these institutions because fo cutbacks in funding from foreign churches. There may have also been problems in administration and availability of manpower, specially after the foreign missionaries handed over institutions to Indian missionaries. But these areas need much more detailed research.

There is little published material about the history of the Catholic medical missionaries in India. Interviews with some key persons in the Catholic Hospitals Association revealed that Catholic medical missions started work in Kerala, Bihar, parts of Uttar Pradesh and Rajasthan during the mid-1800s. A recent policy document the Catholic Hospitals Association (CHAI)

Table 1: Women Missionaries in India during Late 19th Century

Name of Women Missionaries	Year of Arrival	Affiliation to Mission	Place of Work
Clara Swain	1870	American Presbyterian Mission	Bareilly, UP
Sara Seward	1871	–	Allahabad, UP
Seeyle	1871	Women's Missionary Society of America	Calcutta
Sarah Norriss	1873	American Board of Medical Women	–
Rose Greenfield	1875	Society for Female Education in the East, UK	Ludhiana
Elizabeth Bielby	1876	Zenana Bible and Medical Mission, UK	Lucknow
Ms Hewlett	1877	England Zenana Mission	Punjab
Ellen Mitchell	1878	American Baptist Board	Burma
Fanny Butler	1880	Church of England	Jabalpur, Central Provinces
Ida Faye	1881	American Baptist Mission	Nellore
Anna Kugler	1883	Lutheran Mission, US	Guntur
Elizabeth Beatty	1884	United Church of Canadian Mission	Indore
Mana White	1886	United Presbyterian Church of America	Sialkot
Jessie Carelton	1887	American Presbyterian Board	Ambala
Matilda Machphail	1887	Free Church of Scotland	Madras
Edith Brown	1893	Society for Female Education in the East, UK	Ludhiana

Source: Compiled from *The Ministry of Healing in India: Handbook of the Christian Medical Association*, Mysore, Wesleyan Mission Press, 1932.

Table 2: Hospitals and Dispensaries under CMAI Network, 1937 and 1947

States	1937				1947		
	Institutions		Bed Strength		Institutions		Bed Strength
	Hospital	Dispensaries	Hospital	Dispensaries	Hospital	Dispensaries	Hospital
Assam	5	15	230	10	7	4	482
Bengal	12	15	621	–	9	6	572
Bihar	15	19	458	–	13	9	606
Bombay Presidency	31	34	1408	17	32	29	2198
Central India	10	4	373	–	9	7	463
Central Provinces	16	37	501	28	16	20	855
Delhi	1	–	160	–	1	–	NA
Hyderabad	18	8	543	18	18	11	844
Kashmir	3	4	265	7	2	–	221
Madras Presidency	62	26	2833	20	38	31	2901
Mysore	6	6	363	2	6	5	586
Orissa	3	4	81	7	3	1	143
Punjab	24	11	1034	8	18	9	1714
Rajasthan	8	–	224	–	4	3	200
Travancore	13	8	641	–	4	–	988
United Provinces	19	21	781	14	17	–	878
Total	246	212	10.516	131	197	135	13,651

Note: * Bed strength in dispensaries for 1947 was not available.
Source: Records of the Christian Medical Association, New Delhi, 1997.

states that at the time of independence there were approximately 400 institutions in its network and by 1988 there were 2,500 institutions. These were mainly small hospitals, health centres and dispensaries located in rural areas. The CHAI data on their member reveals that there are 459 hospitals with a bed strength of 23,323 and 1,300 dispensaries with a bed strength of 2,394. Unlike the CMAI, the dominant form of provisioning under the CHAI are the dispensaries which outnumber the hospitals with a ratio of 3:1. As far as distribution of these institutions across states is concerned it is skewed in favour of the southern states, viz. Kerala and Tamil Nadu – 46 per cent of the hospitals are located in Kerala, followed by Tamil Nadu which has 18 per cent of the hospitals. In the case of dispensaries, Tamil Nadu has 22.4 per cent of the dispensaries, followed by Kerala with 16 per cent and Andhra Pradesh with 15 per cent (Table 4). The institutional forms vary in the two networks, CHAI and CMAI. While hospitals dominate the Christian medical network, it is the dispensaries and health centres which predominate in the Catholic missionary network.

The public sector bed strength exceeds that of the private and voluntary sectors put together except in a few states like Kerala, Andhra Pradesh, Tamil Nadu, Maharashtra, Gujarat and Punjab. In order to assess the relative position of the voluntary sector to the private, we have focused on those states which have higher private and voluntary sector growth. The Central Bureau of Health Intelligence provides data on the number of private and voluntary institutions with their bed strength. Since one of the providers of voluntary allopathic services are missionaries, we have tried to estimate their bed strength relative to the private sector. The underreporting of data both in the private and voluntary sectors is well known. Despite these limitations, based on the bed strength of CHAI and CMAI one finds that private bed strength is higher relative to the voluntary sector across all the selected states. Kerala, which has the highest bed strength in the voluntary sector, the ratio of private beds to voluntary is 3:1. In Tamil Nadu this ratio is 2:1 and Andhra Pradesh it is 6:1. However, in Maharashtra and Gujarat where the missionary presence is low, the ratio of private to voluntary beds in 25:1 in the former and 76:1 in the latter (Table 5). Clearly the strength of missionary services relative to both the public and private sector is marginal. However, the trends in distribution of the mission institutions aggravates the regional inequalities between the richer and poorer regions since their activities are restricted to those states which are better developed in terms of institutional and infrastructural inputs.

Given the trends in the characteristics and distribution of missionary hospitals and dispensaries several important issues emerge which need consideration. Firstly, the issue of regional variations in the distribution of institutions needs to be addressed by these networks specially if they want to serve poorer regions where the public sector is weak and the private sector will not want to invest. Secondly, the source and means of financial institutions in these networks is extremely important. This issue had surfaced way back in the late 1920s and was probably an important reason why several hospitals were forced to close down. Many mission hospitals were forced to charge fees which affected their voluntary status and hampered charitable work. Very often it became difficult to make a distinction between private and voluntary services since both provided services at a cost. Here, the respective networks have to debate this issue with their member institutions so that they can evolve some way of ensuring that the poor are not denied care. The identity of voluntary hospitals has been further eroded with increasing privatisation as a result of which they are forced to compete with the growing private sector. This is bound to have an effect on the type of services the voluntary sector will provide. Since the private sector largely provides curative services which are dependent on high technology medical equipment, very often mission hospitals are also doing the same. High technology medical care results in increased costs which then needs to be recovered through user fees. Therefore very often mission hospitals are providing care which is a far cry from rational medical care which was the emphasis during the early part of this century. Lastly, most mission hospitals have a lower recurring expenditure compared to private hospitals because they pay their doctors and specially the paramedics less than other institutions. They draw their paramedics fromn religious orders and hence are expected

TABLE 3: ESTIMATED BED STRENGTH UNDER THE CMAT NETWORK, 1996

State	No of Institutions	Bed Strength
Kerala	80	2,298
Tamil Nadu	38	1,646
Uttar Pradesh	17	1,059
Bihar	14	245
Maharashtra	21	310
Gujarat	5	290
Punjab	7	740
Orissa	7	150
West Bengal	2	–
Assam	11	–
Andhra Pradesh	30	904
Meghalaya	3	-
Mizoram	3	–
Manipur	1	–
Nagaland	1	–
Rajasthan	2	–
Delhi	1	–
Haryana	2	–
Himachal Pradesh	4	–
Jammu and Kashmir	1	–
Total	250	7,642

Source: CMAI Membership list and responses based on the questionnaire mailed to all member institution as part of the UNDP Project, 1996.

TABLE 5: MISSIONARY HOSPITAL, PRIVATE AND VOLUNTARY BEDS FOR SELECTED STATES, 1994

States	Private and Voluntary Beds	Voluntary Beds	Ratio of Private and Voluntary Beds
Kerala	49,169	15,255	3:1
Tamil Nadu	10,366	4,538	2:1
Andhra Pradesh	26,791	4,107	6:1
Gujarat	33,487	436	76:1
Maharashtra	37,758	1,509	25:1

Note: * The bed strength of CHAI and CMAI is based on information canvassed from member institutions of the respective networks

Source: GOI, Ministry of Health and Family Welfare, *Health Information of India*, New Delhi, 1995.

TABLE 4: DISTRIBUTION OF HOSPITALS AND DISPENSARIES AND BED STRENGTH UNDER THE CHA

State	Hospitals		Dispensaries	
	No	Beds	No	Beds
Maharashtra	26	1199	85	215
Andhra Pradesh	67	3203	191	518
Tamil Nadu	82	2892	291	632
Uttar Pradesh	28	1311	109	192
Bihar	21	1215	182	316
Gujarat	9	1416	56	24
Orissa	4	116	90	155
Punjab	6	143	22	0
West Bengal	6	141	68	122
Kerala	210	12957	206	220
Total	459	23323	1300	2394

Source: Catholic Hospital Association of India, 1995.

to volunteer their time for a good cause. Given the changing scenario, the mission hospitals may increasingly face a situation where many doctors and paramedical workers may not work in these hospitals for low wages specially when the private sector may be willing to pay higher wages. These questions are closely linked to how those who manage and work in mission hospitals perceive their role in the present and the future – what is the space they feel that they can carve for themselves at the present juncture of declining funds, cutback in public funding and increase in private institutions?

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The Scheduled Tribes and Christianity in India

S K Chaube

A glance at the census reports on religion will show that the growth rate of the Christian community is the lowest among all the religious communities in India. Another feature is the recent association of Christianity with the scheduled tribes, largely because Christianity happens to constitute religious identity of the overwhelming majority of the tribals in the four north-eastern states of India.

DURING the height of what Surajit Sinha [Sinha 1982] called the 'tribal solidarity movements' in the 1950s and the 1960s, when the movements for tribal states became powerful, the blame for 'unrest' was laid mainly at the door of the Christian missions in India. That Christianity and, its concomitant literacy had a great deal to do with the tribal awakening was demonstrated by Jaipal Singh, Rev J J M Nichols-Roy, Captain Williamson Sangma and a host of other educated, Christian leaders. As a result of such movements a host of hill-states were born in north-east India by 1972. Chaube argued [Chaube 1973] that Christianity had played a progressive and, in fact, integrative role in north-east India within the framework of regional autonomy.

Recognition of the right to statehood for Jharkhand/Vananchal and Chhattisgarh – the two areas with high tribal concentration – in the recent period, one would expect, brings the focus on Christianity again, though in a somewhat distorted way. Neither Jharkhand, nor Chhattisgarh is a tribal-majority area today. The tribal element has been somewhat diluted into a regional character – more in Chhattisgarh than in Jharkhand. Both of them have been sanitised by hindutva activism. Attacks on the Christian priests and churches in the concerned areas, however, betray a nervousness of the powers that be. The Dangs and Jhabua, incidentally, are centres of a movement for a tribal state dominated by the bhils [Verma 1990:74].

Tribal Demography

Tribals in India, as elsewhere, are not a homogeneous group. The 'tribe' in fact, is not even defined properly. In India they are an administrative category. The British, until March 31, 1937, categorised them as 'backward classes'. It was under the Government of India Act, 1935, that they were first scheduled as tribes, a practice that was retained in independent India. This population is spread from east to west, from the Patkoi range on the borders with Myanmar to the Aravalli range, along the Chhotanagpur and the Vindhya mountains, with two southward protrusions into the Orissa-Andhra and the Maharashtra territories.

The scheduled tribes constitute 8 per cent of the Indian population. Two factors have contributed to the rise of the tribal population's share in total population from 5.36 per cent in 1951 to the present figure: (i) the removal of intra-state restrictions by the Scheduled Castes and Scheduled Tribes Orders (Amendment) Act, 1976, and (ii) inclusion of new tribes into the schedule. Removal of inter-state restrictions on recognition of scheduled tribes may further increase their share in the total population [Verma 1990:13-14]. In 13 states the scheduled tribes constitute more than 5 per cent of the total population. They are Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Gujarat, Maharsashtra, Manipur, Meghalaya, Orissa, Sikkim, Tripura and West Bengal (Table 1). Of these Arunachal Pradesh, Meghalaya, Mizoram and Nagaland are overwhelmingly tribal. Besides, of course, Lakshadweep, which is a union territory.

Besides the removal of area restrictions on the scheduled tribes in a state, four political and economic factors have affected tribal demography:

(1) Two tracts of territory, now constituting Arunachal Pradesh and the Tuensang district of Nagaland, were unadministered till the mid-1950s. No census of these areas was taken in 1951. In 1961 a limited number of census forms with a limited number of questions among the people of NEFA (now Arunachal Pradesh) mostly residing in the foot-hills was circulated. It is doubtful that the people of Tuensang (formerly, Naga Tribal Area) were properly censused though the census report of 1961 is silent on it. The Tuensang area was the hotbed of Phizoite politics.

(2) Communal violence in East Pakistan/Bangladesh since 1947 has brought several tribal people into the north-eastern states of Assam, Meghalaya, Tripura and Mizoram: Garo, Hajong, Khasi, Jaintia, Tripuri, Mizo and, most of all, the huge Chakma refugee population increased the tribal population of these states. Several early Hajong and Chakma groups were settled in Arunachal Pradesh.

(3) Creation of Andhra state in 1953 and the states reorganisations between 1956 and 1972 transferred territories from the former Madras and Hyderabad states to Andhra Pradesh, from Bihar to West Bengal and from Rajasthan to Madhya Pradesh besides splitting the former Bombay state down the middle into Gujarat and Maharashtra and creating four tribal-majority states of Arunachal Pradesh, Meghalaya, Mizoram and Nagaland out of Assam.

(4) Industrialisation of parts of Madhya Pradesh and Orissa led to migration of literate tribal population of the Jharkhand area as unskilled and semi-skilled workers. Such migration was noticed by this writer during a visit to Rourkela in 1976. Some migration seems to have resulted from displacement caused by development across state boundaries.

Statistics can sometimes be misleading. The total population of the four states Arunachal Pradesh, Meghalaya, Mizoram and Nagaland constitute 0.56 per cent of India's population. The total tribal population of these four states is less than the tribal population of West Bengal which constitutes 5.6 per cent of that state's total population. These states enjoy their political status by virtue of their ethnic concentration, isolation and special historical developments.

Since ancient times little cultures all over the world have been either extinguished or swallowed by their neighbouring great civilisations in a way variously described by anthropologists as 'assimilation', 'acculturation', 'sanskritisation' and the like. When placed between two proximal great civilisations, they have played what Roy-Burman (1972) called a 'bridge-buffer role'. Such roles have been played by the tribes in central India more than those in north-east India due to geographical reasons.

The Indian Tribes and Hinduism

Since ancient times Indian tribes have been assimilated into the Hindu society and caste-stati according to their political and economic strengths. The religious integration involved, on the part of the tribes, the adoption of brahminical rituals and gods and, on the part of the host society, the lending of brahminical services [Bose 1949:62-71; 1953:171-91]. Beyond the north-west frontier Islam did not penetrate the tribal societies in India. Only Lakshadweep came under the influence of Islam through contact with the Arab traders.

Contrary to general impression, the advent of Christianity into the tribal territories of India was late. The East India Company did not encourage missionary activities in British India. It was only after the passing of the Charter Act of 1813 that they were forced to allow Christian missions in their territories. Initially, the Christian missions attempted proselytisation of 'gentlemen' and not the 'lower class people'. The did not enter any tribal territory before the administration. Their activities picked up only towards the end of the 19th century. The financial support of the government was directed, officially at least, towards the missions' educational and welfarist activities only. Some government officers detested the missionaries for creating a class of literati that challenged the traditional tribal leadership and disturbed social harmony [Chaube 1973:58-59; McCall 1949]. Even in 1951 only two districts of India had Christian majority - the Lushai (Mizo) and the Naga districts in Assam.

While 'Hindu' is a society within which different religions (faiths and modes of worship) operate, Islam or Christianity is a religion within which different social structures operate. 'Hindwi' (Hindu) is a geographical term first used by India's western neighbours and carried into the early western writings about India. Indologists like Max Muller saw it as a social order defined by the 'varna' system, which upheld brahminical hegemony and within which 'jatis' (castes) had different slots permitting what Bose called "the Hindu method of tribal absorption" [Dumont 1972:61-65; Bose 1953:156-58]. The British census officials ignored the view, adopted caste as peculiar to Hindu religion [Dumont 1972:316] and decided to record as tribals groups, which had not been castised. Having to work with mostly Hindu subordinates, however, the census officials soon ran into problems that have been aptly summarised by Kingsley Davis

> It is hard in practice to draw a line between advanced primitive religions on the one hand and backward Hinduism on the other...Hinduism is so syncretistic that it embraces almost every conceivable religious practice, and the Hindu social order is so pervasive that it infiltrates nearly

Table 1: Scheduled Tribes and Religions in Select States 1991

(Per cent)

States	ST Population	Hindu	Christian	Other Religions and Persuasions
India	8.08	82.41	2.32	0.38
Andhra Pradesh	6.31	89.14	1.83	–
Arunachal Pradesh	63.66	37.04	10.29	36.22
Assam	12.88	67.13	3.32	0.62
Bihar	7.89	82.42	0.98	1.67
Gujarat	14.43	89.48	0.44	0.03
Madhya Pradesh	23.26	92.80	0.65	0.09
Maharashtra	9.36	81.12	1.12	0.13
Manipur	34.41	57.67	34.11	0 77
Meghalaya	85.53	14.67	64.58	16.82
Mizoram	94.75	5.05	85.53	0.27
Nagaland	87.70	10.12	87.47	0.48
Orissa	22.21	94.67	2.10	1 26
Sikkim	20.15	68.37	3.30	0.09
Tripura	31.32	86.50	1.68	0.01
West Bengal	5.59	74.72	0.56	0.01

Table 2: Growth of Christianity in Select States (as Percentage of Total Population)

States	1951	1961	1971	1981	1991
India	2.35	2.44 (27 38)	2.60 (32.60)	2.45 (16.77)	2 32 (16.89)
Andhra Pradesh	3.96	3.97 (15.91)	4.19 (27.63)	2 68 (-21.39)	1 83 (-15 14)
Arunachal Pradesh	NA	4.43 (Partial census)	0 79 NA	2.68 (641.21)	10.29 (225.98)
Assam	3.52	6.44 (56.89)	6.44 (47.82)	No Census	3.32 NA
Bihar	1.07	1.08 (20.85)	1 17 (31.17)	1.06 (12.37)	0 98 (13.99)
Gujarat	0.48	0.44 (16.61)	0.41 (20 12)	0.37 (21 37)	0.44 (36.99)
Madhya Pradesh	0.31	0.31 (26.95)	0.69 (31.17)	0.68 (23.04)	0.65 (36.99)
Maharashtra	1.35	1 42 (29.39)	1.42 (27.93)	1.27 (10.92)	1 12 (11.26)
Manipur	11.84 (122.33)	19.49 (83.66)	26.03 (47.89)	25.68 (51.02)	34.11 (41.60)
Meghalaya	Part of Assam		46.98	52.62 (47.89)	64.58 (63.06)
Mizoram	Part of Assam			83.81	85.73 (70.20)
Nagaland	Part of Assam	52.98	66.46 (78.29)	80.21 (80.28)	87.47 (70.20)
Orissa	0.97	1.15 (41.63)	1.73 (88.48)	1.82 (26 80)	2.10 (38.67)
Rajasthan	0.07	0.11 (100.12)	0.12 (34.09)	0.12 (31.01)	0.11 N
Sikkim	0.22	1.74 (825.33)	NA	2.22 NA	3.30 (91.20)
Tripura	0.82	0.88 (19.98)	1.01 (56.52)	1.21 (56.52)	1.68 (19.96)
West Bengal	0.44	0.59 (12.52)	0.57 (23.09)	0.59 (26.93)	0.56 (19.96)

Notes: N - negligible; NA - not available; figures in brackets indicate decadal percentage growth of the Christian community.

every social group...Nearly always, therefore, there is some remote basis for labelling a primitive tribesman as Hindu, and he, being illiterate, is often incapable of asserting himself in the matter. Moreover, because of the vagueness and inclusiveness of Hinduism, the enumerator tends to regard it as a residual category. Any person in India is thus a Hindu unless he definitely proves that he is something else [Davis 1951:188].

In the days of competitive religious politics inaugurated in the 1920s, enrolling the tribals into any of the major religious denominations, namely, Christian and Hindu, available to the tribals, became a political task of the census staff resulting in a steady decline in the number of the followers of 'other religions and persuasions' (i e, other than Buddhist, Christian, Hindu, Jain and Muslim). Between 1921 and 1951 the population share of the Hindus in India rose from 84.40 per cent to 86.89 per cent (partly due to migrations following the partition in 1947); that of the Christians from 1.79 to 2.35 per cent while the share of 'other religions and persuasions' (ORP) fell from 3.26 per cent to 0.52 per cent.

The Scheduled Tribes and Christianity

The most remarkable point about the Christian population in India is that its share in the total population of India has, over the six years since 1951, fallen. The migration of a section of the small Anglo-Indian community after independence could not have more than a marginal effect. A glance at the census reports on religion will show that the growth rate of the Christian community is the lowest among all the religious communities in India. The Kerala Christians have the minimum growth rate followed by the Goa Christians. The cause has to be found probably in their high literacy and freedom granted to women.

The second point about the Christian population in India is its unmistakable, rather recent, association with the scheduled tribes though not vice versa. Four states in north-east India show this correspondence to a great length. Almost the entire tribal population in Manipur and Nagaland is Christian. An overwhelming majority of the tribals is Mizoram and a large majority in Meghalaya are Christian. About one-fourth of the tribals in Assam and about one-sixth in Arunachal Pradesh are Christian too. However, the figures regarding Sikkim are misleading. The scheduled tribes of Sikkim are almost entirely Buddhist. Buddhism constitutes 27.15 per cent of Sikkim's population, 12.88 per cent of Arunachal Pradesh population and 7.83 per cent of Mizoram's population. Tripura, on the other hand, with about four times the national average of scheduled tribes population, has a Christian proportion of two-thirds the national average. In Tripura, the Buddhists constitute 4.65 per cent of the population – about three times that of the Christians (1.68 per cent). This, partly because of the arrival of the Buddhist Chakma refugees from Bangladesh in the 1980s.

The contrast between Manipur and Tripura, both former princely states in north-east India, in respect of Christianity is a pointer to the politics of religion. Manipur was under British administration during the last decade of the 19th century and the first decade of the 20th century when Christian missions entered those hills around the Imphal valley. The hills remained virtually under British occupation till independence.

In the princely states of India, the Christian missions did not work. So the Christian population in the central Indian tribal settlements was low. Even in the Chhotanagpur area of Bihar, where the British were mainly interested in the forest and mineral resources, after a series of tribal revolts, the government did not find it convenient to encourage Christian missions. Since the 1930s, on the other hand, the Gandhians and the Rashtriya Swayamsevak Sangh became active in the central Indian belt to halt the growth of Christianity among the tribes.

Statewise, between 1951 and 1991, Christian share in the total population has fallen sharply in Andhra Pradesh and Assam, considerably in Tripura and marginally in Bihar, Maharashtra and West Bengal. It has risen sharply in Arunachal Pradesh, Madhya Pradesh, Manipur, Meghalaya, Nagaland, Orissa, Sikkim and, marginally in Rajasthan.

It is easy to get shocked at the fact that in as many as three states of India Christians form the majority, and in two of them an overwhelming majority. But it will be naive to ignore the fact that the total population of these three states constitute 0.45 per cent of India's total population. Even the Christian population of the three states constitutes only 14.71 per cent of India's total Christian population. The mystery lies in the fact that these states were constituted practically by four thinly populated former districts of Assam.

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Hazardous Industrial Wastes and Poor Nations

MSS

In December last hazardous toxic waste from a petrochemical company in Taiwan was dumped in Sihanoukville in Cambodia prompting massive protest and eventually action by the state authorities. The events in Cambodia confirm that death by technology has advanced beyond the wildest imagination of any previous era. A positive outcome however has been an increased popular awareness and government's eagerness to avoid public reprisals.

TAIWAN's petrochemical giant Formosa Plastics shipped 3,000 tonnes of 20-year old sludge, packed in cement cakes, and tainted with the highly toxic metal mercury to Cambodia, which arrived in Sihanoukville, the major port in Cambodia, on November 30, 1998. This consignment was described in customs documents as 'construction waste' and was dumped four days later in areas adjacent to an important fresh watershed and in villages near the Ream National Park. The dumping operation was carried out rather casually with the entire town being powdered with waste from up to 100 uncovered trucks that ferried, for a week, the waste to disposal sites. Later, these trucks were cleaned next to fresh water reservoirs and in several locations in and around the town. Many local women collected waste sacks from the dump to use as blankets, roofing and mats. News of the dumping and its seriousness came to light when some of the port loaders reported sick, and at least one person, Pich Sovann, purportedly died due to the inhalation of mercury-contaminated dust. Some villagers also complained of dizziness and nausea after coming into contact with the waste. The timely and massive media exposure of the waste dumped at a single site led to a nationwide upheaval and popular, widespread outrage of such casual jettisoning of poison. These disclosures described the scandal as a multimillion dollar conspiracy of deceit involving Taiwanese businessmen and Cambodian officials.

Initially, Cambodian officials were evasive and did not confirm the details of the waste or its effects, while Formosa denied any wrongdoing with an official of the company claiming that the shipment was legal, safe and non-toxic and that the waste had been handled in accordance with the regulations of the Environmental Protection Administration (EPA). Formosa's waste was certified by EPA as being below hazardous levels and safe for landfill, but the company had not been given approval from the Taiwan administration for shipping to Cambodia. In fact, in early October 1998, the Taiwanese government fined Formosa for attempting to ship the waste to Cambodia without valid documentation. It remains a mystery as to how Formosa was able to obtain clearance thereafter to ship the cement cakes to Cambodia. As the controversy raged, Mok Mareth, Cambodia's minister for environment, entered the debate and claimed that neither he nor his ministry had any knowledge of the shipment and that he had declined many similar requests in the past.

As denials and counter-claims mounted, local people became hysterical, as newspapers, radio talk shows and television spots relayed information and comments on the possible disaster that the waste could create. Tens of thousands of those who could afford to fled the town, and every illness was suspected to have emanated from 'mercury poisoning'. These events sparked outrage which escalated into rioting and panic when dock worker, Pich Sovann mysteriously died after cleaning the hold of the ship that transported the waste. Hundreds of people began marching on the streets of Sihanoukville on December 19 and demonstrations continued for three days. As protests gained momentum and turned violent at least two people were killed and several injured. The protesters were apparently venting fury at officials and businessmen they believed were responsible for allowing the shipment of industrial waste to enter Cambodia. Protests were fuelled by reports that some people were dead and others had fallen ill because of the waste. Prime minister Hun Sen, who recently assumed power after a four-month stalemate on government formation, took swift action and suspended 20 senior customs officials and vowed to take action against everyone involved in the scandal.

Two days later, senior ministers Sar Kheng and Mok Mareth arrived in Sihanoukville to calm fears about the possible dangers of the waste, and more than 150 soldiers donned hi-tech protective suits, rubber boots, gloves and gas masks to begin removing the sludge blocks.

These events resulted in a public outcry in Taiwan also. The Taiwanese government was quick to test the samples and found that mercury levels were slightly above the country's safety standards of 0.2 parts per million. Two separate analyses of the waste have also confirmed that the sludge might be highly toxic. As public pressure mounted, Formosa Plastics apologised for dumping the waste. On January 4, 1999 Lee Chih-tsun president of Formosa, declared that an agreement had been reached with the Cambodian government to remove the waste and have it "re-treated in a developed country". Formosa also reportedly agreed to pay \$10 million in compensation to Cambodia to cover the costs of damage and to treat the land on which it had been dumped, and to refill it. Both Cambodian and Taiwanese governments were keen to settle the issue, primarily to avoid further public protest, as fast as they could and to assure that "all is well and back to normal life". This quick patch solution denied the public any further information on the sludge and its possible impact even after re-export. Rumours were rife that this dumping deal, reportedly worth US \$3 million on the Cambodian side, was one of many done before the 1998 elections by a senior most official of the ruling party and offers of investigation were merely made to placate the public.

GLOBAL CONCERN

The Sihanoukville dumping scandal has continued to attract attention from environmentalists around the world. The *Phnom Penh Post* (January 8, 1999) reported that the Basel Action Network, a group of activists dedicated to banning global waste trafficking have already contacted the ministry of environment with a range of concerns. This group has argued that not enough information is available on the organic content of the waste material, particularly dioxin. Dioxin is targeted for global phase-out in a treaty now being negotiated under the UN environment programme as one of the worst persistent organic pollutants. Unfortunately, neither Cambodia nor Taiwan are signatories of the Basel Convention which forbids trade in hazardous wastes. If they had signed that treaty, it would have been illegal for the waste to have been exported and would have imposed several obligations on the exporting nation.

This controversy takes one back to the Minamata scandal, in Japan, which exposed the horrific effects of mercury poisoning. In 1932, Chisso, a petrochemical firm, began to dump mercury in Minamata bay. In the 1950s fish began dying and then

people, who first became numb, their vision blurred and speech became impaired. It continued to affect a second generation of more than 12,000 people with various deformities and diseases. After a long drawn-out enquiry, the Japanese government ordered Chisso to pay compensation of $1,30,000 to each person affected in 1978, and an additional lump sum settlement of $184 million in 1996.

At Minamata, the carelessness of a rapidly industrialising nation poisoned its own citizens. At Bhopal, a US multinational, Union Carbide, poisoned the people of the south. At Chernobyl, deficient government standards in the former Soviet Union resulted in the leaking of radiation into the atmosphere, poisoning not only Ukraine but lands beyond the Soviet border. In Cambodia's Sihanoukville, a petrochemical giant, connived with poorly paid officials of a developing nation, casually exported toxic waste and dumped it without any concern for environmental standards.

Sihanoukville now joins the long and mounting list of eco-catastrophes which seem never ending. While Minamata replicates development in its most murderous form, the Sihanoukville episode once again illustrates how big firms take advantage of poor nations and weak administrations. As has happened to the people of Bhopal, Formosa a giant organisation with advanced science, technology and production techniques, willingly condemned poor people to fear, sickness and death, and their beautiful bay to irreparable damage. These events tell a salutary tale, that in this fast industrialising world, there is no place for the poor to hide.

Nonetheless, in Minamata, Bhopal, Chernobyl and Sihanoukville there is reason for hope. As protests in Sihanoukville showed, a new resistance is emerging to the logic of growth, transnational companies and elite power. The present system has begun to undermine itself by creating its own contradictions: growth against nature; militarism against the need for collective security and peace; mindless consumerism against humankind aspiring to regain lost values and a meaning to life, ecosystems and livelihood. The concern for the environment and the sensitivity towards nature that it implies is gradually being reflected in the popular media. Such renewed debate on environmental regulations have provided space where the value-premises of modern science can be questioned. The first value premise consists of the idea that industrial development has no moral responsibility for the large mass of population. The second value-premise consists of the idea that economic benefits alone count in modern society.

Transborder pollution and global environmental problems have been on the development agenda for some time. Some analysts argue that when a country's production or consumption decisions impose environmental externalities on other countries, there may be a theoretical case for using trade policy to correct these externalities. As the Bhopal and Sihanoukville incidents have established the arguments for using trade policy to correct environmental externalities are weak and are not sufficient to ensure the safety of the local population. The threat of trade sanctions may not provide for sufficient incentives for countries to abide by multilateral environmental agreements either. The simple fact remains that companies continue to dump industrial waste in other countries merely to avoid domestic environmental standards.

On the other hand, as recent experiences have demonstrated, in the case of transborder pollution, a tariff on polluting goods may not, *per se*, improve welfare. Such imports tend to flow from high-income to low-income countries and from high-population density to low-population density countries. Imports are also more likely to flow from more politically stable to less politically stable countries. In the receiving nations, there is no guarantee that any welfare compensation will be used to mitigate the suffering of the affected population. In all probability, such revenues will be shared among politically influential groups to the detriment of the poor and the environment.

Therefore, if disposal practices in less politically stable, low-income and low-population density countries are less safe than the public would prefer, then more developed countries should be required to impose minimum safe disposal standards, or at the very least, monitor such disposal, observing the Basel Convention and ensuring strict enforcement of the regulations. Without such a commitment from the industrialised nations, the poor and weaker counterparts will continue to suffer, and more Bhopals and Sihanoukvilles are certain to occur.

Decentralised Institutions

Governmental and Voluntary Sector

George Mathew

From the beginning of the 1990s, there seems to be a positive change in the outlook towards decentralised institutions. In the emerging scenarios both panchayats and voluntary agencie, have a crucial role to play and can work together effectively if they view each other as partners rather than contenders in the process of decentralisation and development.

IN this paper, panchayati raj institutions at the three levels – district, block/taluk and village – as well as town municipalities and city corporations, are taken as decentralised institutions of the state and the government. Decentralised institutions in the voluntary sector are the community initiatives which protect people's rights and assets, people's organisations as well as voluntary associations or agencies (VAs) working to improve the socio-economic status of local communities. That is, broadly speaking, citizens' initiatives and their organisations in civil society.

It is at the local level (in villages, towns and wards of corporations) that the majority of people conduct their day-to-day lives. There is face to face interaction with almost everyone in a locality. When the state reaches out to that level, its government comes under closer scrutiny. Here, citizens' groups can interact with the state, even confront it, and demand the local government's support for their own effort to sustain or improve the quality of life of individuals as well as the community.

At the outset, it should be made clear that in terms of numerical strength and operational reach, voluntary agencies (VAs) cannot be compared with panchayati raj institutions (PRIs). In many villages and small towns there are no VAs at work at all. The programmes of recognised VAs rarely cover all districts in a state. Where strong local groups have been set up, for example, for natural resource management such as the joint forest management committees, water users groups, etc, their coverage is restricted to a few hamlets and villages.

In comparison, we have over 2,50,000 village panchayats, 5,000 panchayat samitis at the block/taluk level, and over 500 district level zilla panchayats. Therefore, it should be borne in mind that panchayats as local self-government institutions are everywhere, while voluntary agencies are not.

The Panchayats

Although the Constitution of India has recognised only two tiers of governance in the country – Union and the states – in its Directive Principles of state Policy, the Constitution (Article 40) had mentioned 'units of self-government' to denote panchayats below the district level. In the 50 years after independence practical problems of administration, governance and development along with people's aspirations for sharing power, widening the space for people's organisations and their relevance have underlined the need for the decentralisation of power. This is particularly so for the district level and below.

Decentralisation of institutions and powers, as it stands today, has evolved as the outcome of several developments since 1950. The following need special mention:

(1) The concept of the 'four-pillar state' (*chou-khamba rajya*) – of village, district, state and centre – gaining strength.

(2) The idea of district government gaining currency, especially with the 1983 Karnataka Act on panchayats.

(3) The Amendments to the Constitution (73rd and 74th Amendments of 1992) which defined local bodies at the district and below as 'institutions of self-government'.

These developments had three implications. First, the idea of 'local self-government', hitherto understood in accordance with the government resolution of Lord Ripon (1882), as local bodies carrying out only civic functions, with mainly nominated members, became irrelevant.

Second, panchayats, which were localised institutions with limited scope, assumed the dimensions of 'panchayati raj' with a wider and more dynamic meaning – as part of a political process from gram sabha to Lok Sabha (village assembly to national parliament).

Third, the existing quasi-federal structure began to undergo radical changes affecting centre-state relations as well as state-panchayat relations. In other words, a whole lot of changes are now taking place in this area, with 29 subjects being transferred to panchayats under the Eleventh Schedule of the Constitution. In effect, the concentration of power at any one level of the state is becoming difficult.

'Institutions of self-government' are mentioned in Article 243 G of the Indian Constitution. This concept needs to be interpreted in the light of all these positive developments in the last decade. In fact, nowhere is the term 'institutions of self-government' defined. Therefore, a clear understanding has to evolve through praxis. First of all, it entails autonomy. That is, autonomy within the union and the various tiers of government. The meaning of the concept of autonomy is, however, highly flexible. At a given time, it denotes such space for governance at a particular level as can be negotiated between the concerned parties. But the range of manoeuvrability is within boundaries set by the centre. At the lower end, it must obviously remain to be defined. The states would know what is the very least that they must endow their panchayats with by way of powers and authority for them to be recognised as institutions of self-government.

The full meaning and implication of panchayats and municipalities becoming 'institutions of self-government' after the Constitutional Amendments must be understood in its proper perspective. Although Articles 243 (d), 243 G and 243 P(e) define panchayats and municipalities as 'institutions of self-government', nowhere has the scope of these institutions been defined. But they can, nonetheless, bring about radical changes in India's federal structure with far-reaching consequences. As Nirmal Mukarji wrote immediately after the passing of the Constitutional Amendment: "The amended Constitution requires the states to constitute

panchayats as institutions of self-government not only for villages but also at intermediate and district levels. Consequently, there will, henceforth, be three strata of government: the union, the states and the panchayats. A more radical change is difficult to visualise. Its implications are far-reaching" [Mukarji 1993].

If we take the case of panchayats, all the three tiers – gram panchayat, panchayat samiti and zilla parishad – are institutions of self-government for their respective jurisdictions in respect of functions allotted to them. "They are in a way governments unto themselves for the limited area and for the limited functions ... Panchayats are representative institutions of self-government" [Bandyopadhyay 1997].

The concept of 'self-government', as guaranteed by the Constitution, is not negotiable. The powers and functions of panchayats and municipalities could be divided into two categories: (i) original functions, and (ii) assigned functions. The original function is: "preparation of plans for economic development and social justice". The assigned functions include "implementation of schemes for economic development and social justice as may be entrusted to them including those in relation to the matters in Eleventh Schedule".

There is another view which states that all that happened in 1992-93 was the strengthening of 'administrative federalism' and nothing more. The provisions of the 73rd Amendment strengthen 'administrative federalism' in order to facilitate and encourage delegation of administrative and financial powers from the states to local bodies. Their administrative powers and responsibilities and the financial resources to exercise these powers and discharge these responsibilities are entirely derived from legislation that will have to be passed by the concerned state. They have no definite executive, legislative, financial or judicial powers and, according to this school, merely having constitutional status or regular elections does not confer on them the status of the third tier of governance. S Guhan, an exponent of this view, quoting Daniel Elazar, argues that decentralisation is not a federal characteristic because decentralisation implies the existence of a central authority [Guhan 1995].

Since this school of thought takes a narrow and limited view of the nature and impact of democratic and political processes which have taken place in our political structure, one cannot agree with this argument. It may be stated here that in countries where local bodies exist, they are given powers of delegated legislation, e g, budgets, by-laws and regulations. They also enjoy considerable powers of regulation attached to their functional responsibilities. India is, therefore, definitely moving from administrative federalism to multi-level federalism [Mathew 1997].

For local bodies in India to function as institutions of self-government, there are certain prerequisites. These can be identified as (a) clearly demarcated areas of jurisdiction, (b) adequate power and authority commensurate with responsibilities, (c) necessary human and financia[l] resources to manage their affairs, an[d] (d) functional autonomy within the federa[l] structure. The Constitutional amendment[s] provide for all these.

The Eleventh and Twelfth Schedule[s] added to the Constitution along with th[e] Amendments have suggested transfer o[f] 29 subjects to panchayats and 18 subject[s] to municipalities. State Conformity Act[s] have more or less incorporated them. Whe[n] they are fully operationalised, one can sa[y] that local bodies at the district level an[d] below have genuinely become the thir[d]

tier of governance in the Indian federal structure, giving the Indian federation a new meaning. Of course, these local bodies have no legislative powers; nor do they have law and order (police) powers or judicial powers. Some states have mentioned in their Conformity Acts the creation of local courts (Nyaya Panchayats). Amongst policy makers and intellectuals, there is a section which is of the firm opinion that police and judicial powers must be given to the panchayats.

The bureaucracy for local government is of crucial importance. Whatever may be the interim arrangements, eventually a panchayati raj cadre will become inevitable. What will be its nature/composition? This will have to evolve through the coming years.

An important implication of this development is regarding existing state acts and parastatal bodies. About 53 Central and State Acts would come in conflict with the 73rd and 74th Constitutional Amendments. The parastatals like the electricity boards, water and sewerage boards, public works departments, development corporations, etc, have centralising structures and how they will adjust to the new set-up is a big question. In other words, the role of the state as we understand and experience it will have to undergo a radical transformation.

Community Initiatives

Under the new panchayati raj, there is greater possibility of giving new meaning and content to the concept of civil society. Even when the power of the state, compared to its absolutist historical precedent, is weak, in a civil society, direct initiatives necessary for self-government would be assured by voluntary associations in India at the local levels. Civic order in a liberal society cannot be sustained without the consistent activity of citizens at the grass roots. Civil society is, in a way, an antidote to authoritarian tendencies because the informal pressures of public opinion through the democratic process threaten new tyrannies. Only the plurality and diversity of civil associations can assure the characteristics which reflect good governance.

People's initiatives express themselves in several ways – citizens' groups, neighbourhood organisations, associations to safeguard community interests and culture, pressure groups, voluntary organisations to protect the rights of the people in general and the vulnerable and marginal groups in particular, trade unions, co-operatives, etc. Non-governmental organisations (NGOs) and VAs may have an international, national, regional or local base. They are not location specific. The local organisations/associations are generally community-based organisations (CBOs). There are also associations and societies registered at the district or state level, with a district authority as its chief (like the district blindness control societies, watershed development committees, joint forest management committees, water users' committees, etc). Administrators, professionals and users belong to these organisations. We are using in this paper the term 'voluntary agencies' to cover the entire gamut of voluntary sector initiatives.

The voluntary sector, people's organisations and empowerment of the people by action groups were not looked at favourably by the government till recently (with the exception of charity organisations, which were tolerated). There was much scepticism among the bureaucracy and political leaders about VAs because many of these agencies did things better and won the confidence of the people. They organised the poor or disadvantaged to secure their rights and local vested interests represented by politicians felt insecure. The bureaucracy sided with these interests. This nexus of politician-bureaucrat had created adverse opinion against people's organisations at the local and national level. NGOs and VAs were dubbed as both corrupt and 'anti-national', because many of them were funded by international aid organisations.

However, side by side, another school of thought prevailed that large programmes like poverty alleviation, provision of basic needs, literacy, women and child development, tribal development, etc, have scope for action, planning and participation by voluntary agencies at the local or regional level.

The voluntary agencies can play an important role in innovating new methods and approaches to deal with vexing issues, plan cost-effective project implementation, and get effective involvement and participation of the people. They have access to expertise and are competent in their own areas of operation.

As Bandyopadhyay puts it, these colossal national programmes "have enough space for local initiatives, innovative action [and] imaginative planning, which no centrally sponsored scheme with strait-jacketed implementation instructions can provide for. Thus, an appreciation of the deficiencies of the administrative delivery system led to the acceptance of the complementary role of the volags."

The Seventh Plan document recognised the positive contribution of the voluntary sector and stated that henceforth serious effort would be made "to involve voluntary agencies in various development programmes." It identified a role for VAs in the following areas:

(i) To supplement the government efforts so as to offer the rural poor choices and alternatives;
(ii) To be the eyes and ears of the people at the village level;
(iii) To set an example. It is possible for VA to adopt simple, innovative, flexible and inexpensive means with its limited resources to reach a larger number with less overheads and with greater community participation;
(iv) To activate the delivery system and to make it effective at the village level in respond to the felt needs of the poorest of the poor;
(v) To disseminate information;
(vi) To make communities as self-reliant as possible;
(vii) To show how village and indigenous resources could be used, how human resources, rural skills and local knowledge, grossly underutilised at present, could be used for their own development;
(viii) To demystify technology and to bring it in a simpler form to the rural poor;
(ix) To train a cadre of grass roots workers who believe in professionalising volunteerism;
(x) To mobilise financial resources from within the community with a view to making communities stand on their own feet;
(xi) To mobilise and organise the poor and generate awareness to demand quality services and impose a community system of accountability on the performance of village level government functionaries.

The Eighth Five-Year Plan (1992-97) document carried it further saying: "[I]t is necessary to make development a people's movement...A lot in the area of education (especially literacy), health, family planning, land improvement, efficient land use, minor irrigation, watershed management, recovery of wastelands, afforestation, animal husbandry, dairy, fisheries and sericulture, etc, can be achieved by creating people's institutions accountable to the community." The focus of attention was on "developing multiple institutional options for improving the delivery systems by using the vast potential of the voluntary sector".

The Plan highlighted the importance of 'people's institutions' comprised of "users/ stake holders, producers or beneficiaries", which are accountable to the local community and have the capacity to both draw up and implement need-based local level plans in close co-operation with the local administration.

The document emphasised a new direction in decentralised local level planning for optimising benefits at the grass roots level, the work for which is to be primarily undertaken through VAs and NGOs in co-operation with people's institutions and with the support of the government. The report of the National Development Council's Committee on Micro-level Planning (1994) has also underlined this point. The report says "reputed non-government organisations with proven track record are expected to be called upon to replicate their activity and carry out institution building among the people" as well as providing technical expertise to the micro-level planning body.

However, it may be pointed out here that VAs/NGOs have certain limitations. Most of them are single leader oriented, their areas of operation are limited, often confined to a few villages, a block or portion of a district. They are not accountable to the local people in any legal sense of the term, many have no internal democracy, and they depend for funds on the government or international aid agencies.

Panchayats and Voluntary Agencies

The new role of panchayats and municipalities after the 1992 Constitutional Amendments must be recognised by VAs. Since they are representative institutions of self-government, their supremacy must be accepted by VAs. According to Bandyopadhyay, voluntary agencies "should not consider even remotely that panchayats are contenders to their position, authority and power. Primacy of panchayats of different tiers as system of representative governance has to be ungrudgingly accepted". It is within this basic premise that the problems and possibilities of the relationship between VAs and panchayats/municipalities have to be discussed.

After the new panchayats have come into being through elections, four types of situations can be observed.

(a) People's organisations and voluntary agencies which were working in the space where there were no panchayats or local initiatives have established themselves in their own areas of work. They view panchayats as new entrants encroaching on their space.

(b) The newly constituted panchayats regard the voluntary sector, both community initiatives and VAs/NGOs, as rivals working in their area of jurisdiction.

(c) The third situation that emerges is that both panchayats and voluntary organisations understand their respective roles and work in harmony and co-operation to complement each other's work.

(d) In several areas, voluntary agencies participate in panchayat elections and put up their candidates. Political parties also actively participate in panchayat elections. Voluntary sector candidates either get party tickets or contest elections as independents. They are more successful at the lowest levels and it has been noticed that those who have worked with or been trained by VAs perform better in local self-government institutions.

How do VAs and panchayats view each other? In several states, voluntary agencies have a 'don't care' attitude towards the panchayats. People's organisations have a disdainful attitude towards panchayats and consider them both irrelevant and ineffective. They therefore do not see the need for any interaction with panchayats.

Since panchayats are non-functional in many states, and do not have regular meetings with correct procedures, VAs do not take them seriously. They believe that panchayats are a hot-bed of petty politics and therefore it is better to keep away from them.

The panchayats, in a majority of cases, do not inspire confidence in people as 'institutions of self-government'. Panchayat members are often unaware of their powers and responsibilities. They are often treated with contempt because of their low position in the caste and class hierarchy, low educational status, and they lack the fiscal powers to be efficacious. Moreover, a large number of women who are elected through reservations are unable to function on their own and act as proxies of male family members. Political interference in the day-to-day functioning also hampers panchayats' development. Therefore, capacity building through training, exchange programmes, visits to places where panchayats are working successfully as well as information sharing are critical. Voluntary agencies with specialised knowledge and expertise can help panchayats in this respect.

It is to be noted that VAs/NGOs have an edge over PRIs in terms of access to knowledge and the latest technological advancements. Thus, many of them are engaged in information dissemination, awareness generation, etc. For example, there are a number of organisations engaged in developing alternative renewable energy systems for rural areas.

Several VAs/NGOs have developed expertise in programmes for women's empowerment and implementation of land reforms to ensure land to the tiller. Panchayats can invite the co-operation of VAs in areas of water management, forest management, development of fishery resources, income generation projects for community members, etc.

Self-help groups, pani panchayats, watershed associations, water users' associations, community irrigation groups and joint forest management/forest protection committees and their sustainability need special mention in this discussion. The self-help groups are working in the area of small savings, micro-credit and so on, which are an important channel for financial support to the rural poor. The success of Self-Employed Women's Association (SEWA) in India may be noted here. Depletion of forest cover, increase in soil erosion, fall in ground water table have caused the formation of the watershed and water users' groups. These associations are permitted to receive up to 50 per cent of the funds of the Jawahar Rozgar Yojana (JRY) and Employment Assurance Scheme (EAS). An NIRD study says that in the watershed committees and user groups, the participation of the beneficiaries was limited to selection of the production packages and labour. The watershed committee functioned like a back bencher in the planning and implementation exercises. The approach was more sectoral than participatory action [Jayalakshmi and Annamalai 1998]. The World Bank has supported four watershed developments projects: Himalayan Watershed Management Project, Watershed Development in Rainfed Areas, Integrated Watershed Development Projects (Plains), and Integrated Watershed Development Projects (Hills). A review of these projects have shown that they are unsustainable over a long period of time.

Andhra Pradesh has about 10,000 water users' associations and distributory committees were formed to enable farmers' participation in the management and maintenance of the irrigaion system for effective, reliable water supply and distribution. Pani panchayats have been organised as a result of acute water shortage for agriculture in various parts of India. The Naogaon experiment in Maharashtra stands as an outstanding example of pani panchayats. With the success of forest protection committees in regenerating forests in states such as West Bengal, attention is increasingly focused on protection and management of forest lands with community participation. In pursuance of this objective, the Government of India issued a notification in June 1990, encouraging involvement of village committees and VAs for the regeneration of forest lands. Joint forest management seeks to restore the traditional system of forest management by community based decision-making and consensus.

In all these initiatives the critical issue is their sustainability. There is sufficient evidence to suggest that unless they are brought under the overall supervision and partnership of panchayats which are permanent, they will not work effectively. There is no other body which can ensure sustainability. Regarding the watershed committees, the NIRD study has suggested that water development teams must be constituted at the panchayat samiti and village panchayat levels to ensure their efficiency and continuity. The district level officials are unable to visit the micro-level watershed projects. In Uttar Pradesh, a bill has been passed to bring joint forest management under the purview of panchayats. Another successful example in this regard is West Bengal. In 1985-86, the West Bengal government launched a massive scheme for constructing dug wells, shallow tube wells, deep tube wells and river lift irrigation with World Bank assistance which was completed in March 1994. In view of their small command area and easy management, all the shallow and low duty tubewells were to be handed over to the panchayat samitis. Sabhadipati of the zilla parishad, in consultation with the site selection committee distributed the tube wells to the different panchayat samitis. At panchayat samiti level, the standing committee for agriculture, irrigation and co-operation further allotted tubewells to the gram panchayats. An undertaking was obtained from all the farmers included in the command area to the effect that they would purchase water supplied by the panchayat tube wells. Day-to-day working of the tube wells is looked after by the beneficiary committee which is a unique feature of West Bengal's panchayati raj. All the tube well operators are also members of the committee.

Panchayats, with their regulatory functions and emphasis on policy matters, can entrust implementation of programmes and plans to people's organisations. In this context, a number of functions performed till now solely by the state can be better performed through people's organisations, whether it be in the area of credit or agricultural marketing or in a host of other development activities. Dairy co-operatives of the NDDB model are a prime example. Still other functions can be entrusted to registered societies based on self-help, of which a shining instance is the Gramin Mahila Shramik Unnayan Samity (GMSUS) at Jhilimili in Bankura district of West Bengal. Yet again, informal associations of beneficiaries could be left to operate and maintain, for example, tube wells, eliminating departmental officials [Mukarji 1995]. This is a definite move towards enhancing the role of the voluntary sector and people's organisations under the new local government system.

A number of VAs are also working for the protection of rights of tribals and other communities to local biological resources and preservation of their knowledge about medicinal plants, etc. These are some of the areas in which VAs have done excellent work. The PRIs, now extended to the tribal areas, can invite VAs to work on these issues in order to learn from their experience and make use of their expertise for the betterment of tribal and forest dwelling communities.

People's' organisations can play a catalytic role for social change in the political process of democratic institution building. They are more responsive to different situations and are more adept at crises management. The health of civil society both determines and responds to the existence of effective people's organisations.

The gram sabha in the present Constitution is not an executive body. It represents all the voters in the village or ward, as the case may be, and they have powers to raise issues, ask for clarifications and suggest programmes for implementation. At best, they can perform the function of social audit. On the basis of their experience with the voluntary sector, gram sabhas can also play a role in identifying good voluntary agencies as well as the not so good ones.

The VAs are not a constituency for panchayat membership. As mentioned earlier, they can put up candidates in the elections as independents. However, they can play a vital role in the district planning committees (DPCs). They can get nomination to the DPCs on their own credentials. In village planning, resource mapping, setting up of voluntary technical corps of retired officers and technical persons, they can have a unique place. This can ensure better co-operation and co-ordination. Thus, both panchayats and

voluntary agencies can work together effectively in a demand driven situation, especially if they view each other as partners rather than contenders in the process of decentralisation and development.

In this discussion, another area we have to consider is the role of political parties India has adopted a multi-party parliamentary system and this is also reflected at the lowest units of democratic institutions. Political parties therefore compete with each other and work hard to establish their roots in villages, wards and towns. They take up people's problems through their front-organisations or the party fora. Wherever this machinery is strong, one finds that people's organisations are not strong enough, nor large in number and even if there are a few, they occupy a smaller space. The best example of this is West Bengal.

In states where people's organisations have a powerful base, committed workers, relevant programmes, a scientific outlook and focus on action, they play a creative role in enhancing the capability of local self-government institutions. Both in ideas and action these institutions can give a lead and also extend support to local bodies. The role played by the Kerala Sastra Sahitya Parishad (KSSP) in charting a new course for panchayats through the people's campaign for the planning process is a case in point. In Maharashtra, where the co-operative movement is strong, it can play a significant role in strengthening panchayati raj in the state.

Members of the legislative assemblies (MLAs), state level politicians and government officials play a critical role in strengthening (or otherwise) decentralised institutions. Since Independence, the trend in administration and government had been towards centralisation. From the beginning of the 1990's there seems to be a positive change in their outlook towards decentralised institutions. But they have a long way to go to keep pace with the emerging thinking on the new governance and administration paradigm.

Vibrant decentralised institutions, both in the formal and informal sector, are the bedrock of civil society. Only in a genuine democratic milieu can the civil society play its role and generate initiatives by the citizens themselves. The other side of the coin is that only an active civil society can ensure a responsible, transparent, corruption-free and efficient local self-government system from the neighbourhood level to village, town, block and district levels.

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Overcoming Structural Barriers

Steel Industries in Brazil, India and Korea

Anthony P D'Costa

In examining state-led industrialisation, we find that state-ownership guaranteed capacity build-up in the steel industry in Korea, India and Brazil. But only Korea achieved rapid industrial change by maintaining investment momentum. A bureaucratic approach to industrial governance and populist policies limited the development of the Brazilian and Indian state-owned steel industries. A comparative study of the these late industrialising countries tells us that both innovative behaviour and institutional capability are necessary to organise capitalist production.

I
Introduction

THIS article examines the technological and institutional basis for overcoming structural barriers to industrialisation in three late industrialising countries. Using the steel industry as the empirical referent, the article adopts a historical approach to account for uneven industrial change in the three countries. It also underscores the importance of a strategic industrial policy for strengthening technological capability and maintaining an investment momentum. The classic late industrialisation experience of Japan, whereby new innovations were rapidly adopted and the state worked with the private sector in industrial transformation, became a model of sorts for the others. However, the immediate structural and geopolitical factors conditioned the actual acquisition of technology and its effective deployment. The autonomy of the state was critical for securing modern technology and sustaining the high rate of capacity expansion. The monopolisation of the more expensive, integrated segment rather than the smaller scrap-based minimills in Brazil, India, and Korea indicates the state's privileged role in national economic transformation. Capital scarcity and access to technology have been daunting entry barriers for private capital.[1] At the same time, the state, with greater resources, has attempted to regulate industrialisation on its own terms through direct participation in large-scale, integrated mills. Clearly, late industrialisation has a bearing on capacity expansion. The question is under what conditions does state intervention guarantee successful industrial transformation.

By exploring state-led capitalist industrialisation in Brazil, India and Korea we are able to demonstrate that state intervention *per se* does not guarantee technological progress. Brazil and India share 'lateness' with Korea. However, the institutional weakness found in Brazil and India sets them apart from the east Asian duo of Korea and Japan. The weak institutional basis of the state undermined the development of a technologically dynamic steel industry. Paradoxically, the private sector steel mills have not been at the cutting edge either. From this we can deduce that institutional barriers can be as much structural as they are policy induced. By differentiating the Korean case from the Indian and Brazilian cases we are able to obtain a nuanced view of uneven diffusion of technology and industrial change.

The article is divided into six main parts. Section II presents state-led industrialisation in Brazil and India – covering state-ownership of the industry, public bail out of private steel firms, and regulation of steel prices. The Korean experience is discussed for comparative purposes. Section III shows how the state, in both Brazil and India, overcame initial structural dependence to set up a domestic steel industry. By negotiating technology and finance with foreign suppliers, the state succeeded in creating new industrial capacity and expanding it gradually. However, the initial momentum in establishing the industry was lost as institutional weakness undermined the ability to keep up with changing technology. The slower pace of change in Brazil and India relative to Korea is examined in Section IV. The high investment requirement for new innovations associated with rising economies of scale made it difficult for the state to mobilise sufficient resources. The effects of these constraints have been project delays, escalating debts, and economic losses. Section V compares technological change and its diffusion in the three late industrialising countries, clearly demonstrating the superior technological capability on the part of the Korean state-owned enterprise Section VI concludes.

II
State-led Capitalist Industrialisation

State-Ownership and Industrial Policy

State-ownership of steel plants in independent India began in the 1950s. Three large, privately-held plants existed prior to India's independence in 1947. In Brazil direct state involvement came much earlier. By 1941 the National Steel Company (CSN) was formed; by 1948 Brazil's first coke-based integrated plant was completed. In Korea, the state created the national steel company POSCO in 1968. The circumstances and the conditions under which the state intervened in these countries have varied in detail. In all three countries, reducing import dependence has always been a national objective.

In the post-war period each state dominated its respective steel industry and only recently has there been a dilution of state-ownership. With few exceptions, state-ownership has been largely confined to large-scale, integrated mills, producing high value added flat products. The private sector is active in the much smaller, scrap-based EAF units, producing cheaper long products. In all three countries roughly 60 per cent of total steel output is under state-owned mills (Steel Authority of India, Instituto Brasileiro Siderurgica, and Pohang Iron and Steel Company, various issues). In the mid-1980s, the shares for Brazil and India were even higher – 75 and 70 per cent respectively. Although the bulk of Brazil's integrated mills are now in private hands, nearly 80 per cent of Brazil's steel capacity was under the government prior to privatisation in the early 1990s. In India state-ownership in 1996-97 stood at 56 per cent [Joint Plant Committee 1997].

The division of labour between the state and private sector was quite clear-cut. The former produced flat products using the integrated process, while the latter produced long products using electric arc

furnaces. The Indian state sector controlled roughly 48 per cent of flat products in 1979-80. By 1996-97 the state sector had increased its output of flat products, such as plates, coils, and sheets to 78 per cent. Privately-owned TISCO, with an integrated plant, also produced flat products. However, 57 per cent of its total output was devoted to long products, such as bars and rods [Tata Iron and Steel Company 1987]. In the Brazilian case, prior to privatisation, virtually 100 per cent of flat product production was under the state. Three integrated mills in Brazil, formerly all state-owned, also produced nearly 100 per cent of flat products. In Korea the industry structure is similar – with POSCO producing the bulk of flat products. All three countries exhibit rising share of flat products in the overall product-mix, indicating greater complexity in industrial structure.

Industrial policy in all three countries also regulated the number of players in the industry, effectively by barring entry of private capital, domestic and foreign. Brazil was the only country among the three where minor foreign ownership was permitted in the integrated segment. The Indian government in early 1950s allowed TISCO to expand capacity to 2 mt but was prudent enough to make sure that TISCO did not enter the flat products market in a big way. This would have undermined production at state-owned Rourkela and Bokaro plants. It also denied the Birlas, one of the largest family-owned, highly diversified business houses, an entry into the steel business [Krishna Moorthy 1984:60]. In Korea, Hyundai's requests to enter the integrated steel segment has been repeatedly denied for fear of overcapacity, even though state-owned POSCO has continued to expand output.

Bailing Out Privately-Owned Steel Firms

In addition to restricting the number of firms in the industry – a classic form of capitalist regulation – each late industrialising country also designed policies to support private sector development, including firms in the private sector. For example, the Indian Industrial Policy Resolutions of 1948 and 1956 reserved all new capacity in the iron and steel industry for the state. But private operations, such as TISCO and IISCO, were spared from nationalisation. The government, by virtue of a nationalised financial system since 1969, also owns 37 per cent of TISCO's shares [Krishna Moorthy 1984:308]. After several years of disastrous performance, in 1972 IISCO was nationalised. State intervention in bailing out private firms is also part of capitalist regulation, even if prompted by the immediacy of a political crisis.

In Brazil the government was forced to purchase several loss-making firms, such as Piratini, Cofavi, Cosim, and Usiba. In other cases, although limited foreign ownership was permitted, over time the government had to inject needed funds, increasing its equity by default [SIDERBRAS 1987:4; and personal interview, SIDERBRAS, Brasilia, December 1987].

Even the Korean government has been engaged in bailing out private sector steel firms. As recently as 1997 the Korean government was engaged in rescuing Hanbo Steel, a privately-held minimill, from a colossal debt of $ 5.8 billion by finding a buyer. POSCO also purchased the $ 1.2 billion debt-ridden Sammi Steel, a specialty steel producer in the private sector. In all of these cases the state undertook production and assisted private capital in their commercial viability, serving as the basis of capitalist transformation and by extension, contributing to global restructuring of the steel industry.

Price Control and Industrialisation

Perhaps the most effective form of intervention to promote capitalist industrialisation has been price ceilings for critical industrial inputs. The general Brazilian policy has been to keep prices as low as possible [Dahlman 1978:95]. With 1969 as the base, Brazilian steel prices until 1987 without exception have varied negatively from this base (personal interview, SIDERBRAS, Brasilia, December 1987). The World Bank, in one of its internal reports, remarked that price controls cost Brazilian steel producers over $ 14.5 billion during the 1977-88 period (1992:60), while another state employee in 1987 claimed a loss of $ 6.5 billion solely due to price controls (personal interview, SIDERBRAS, Brasilia December 1987). These losses have been a part and parcel of state-led capitalist regulation. The symbiotic relationship between the state and private capital was pronounced in Brazil as the state propped up transnational capital for industrial transformation [Evans 1979]. By third world standards the Brazilian state has successfully fostered a relatively large auto industry [Mericle 1984]. From a mere 38,000 units in 1960 its output jumped to 7,31,000 by 1989, representing an average annual growth of 63 per cent [Dicken 1992:271]. In 1995 Brazil produced 1.7 million vehicles, spurred on by various incentives offered in the past to the foreign-owned auto sector, such as income concentration policies and low-priced steel. With sluggish domestic demand in the 1980s, export competitiveness necessitated cheap steel (personal interview, Acominas, Belo Horizonte, December 1987).[2] As the auto industry controls a large number of jobs and is a major foreign exchange earner its power and influence has been substantial.[3]

The strong relationship between the state and private (foreign) capital to foster capitalist development was succinctly captured by a Brazilian scholar:

> The production of capital and consumer goods was promoted by the bourgeoisie and by the military on the assumption that it would create the necessary economic structure for accumulation. Now there is a strong, well diversified economic structure but which is highly internationalised ...The creation of BNDE [the National Bank for Economic Development] was a clear manifestation of an industrial push and the underwriting of private capital accumulation. Now we have the triple alliance with the state controlling a large part of the economy. The debate is how to *destaticise*. But the bourgeoisie wants the state (personal interview, Otavio Ianni, Catholic University, Sao Paulo, November 1987).

In contrast, the Korean strategy for accumulation attempted to interface nationally-owned upstream and downstream economic activities. By keeping prices low, the state-owned company followed the Japanese example of supporting metal-working industries and infrastructure sectors. Kim notes that "in addition to the construction and shipbuilding industries, the [government's attention] turned to the automotive industry" (1985:10). POSCO's cost competitiveness was passed on to steel-using industries in the form of lower prices.[4] There is a tacit understanding between the government and POSCO that prices must be maintained at 'competitive' levels. The *raison d'etre* for capitalist transformation is not high financial surplus *per se*. Rather, it is the creation of an industrial foundation on which capital as a whole expands.[5] Instead of propping up foreign capital as in Brazil or incurring heavy losses as in India, the Korean state steel company by being competitive nurtured a dynamic capitalist class.

III
Overcoming Structural Dependence

Establishing a Domestic Steel Industry

As late industrialisers, India, Brazil and Korea were able to enter the steel industry by bargaining and exploiting any opportunity that arose in the international

geopolitical situation. Korea was the most successful in rapidly establishing an internationally competitive industry (Figure 1). The growth and expansion has been spearheaded by POSCO – the state-owned firm. However, Korea's private sector in the last decade also added significant capacity, nearly 10 mt.

Since the late 1960s Brazilian integrated capacity has also grown significantly (Table 1), with an incremental addition of nearly 10 mt of capacity in the 1970s. In three phases, spanning two decades, the Brazilian state added a net integrated capacity of 14.5 mt. The state controlled five large integrated facilities along with a few smaller non-integrated units, which had resulted from bail outs of private firms. The integrated segment's output in 1996 stood at 18 mt.

The Indian state actively promoted heavy industry through its five-year plans (Table 2). From less than 2 per cent of total public sector outlay during the First Plan, the Indian steel industry steadily gained nearly 8 per cent of total outlays in the Third Five-Year Plan. While steel's share of public sector outlays fell, overall outlays in nominal terms roughly doubled in each successive plan period. Correspondingly state's steel-making capacity increased from 3 mt to nearly 15 mt, capturing over 80 per cent of the country's integrated capacity. From the Fourth Plan onward, investment in the Indian steel industry remained sluggish until the mid-1980s. Three million tonnes of capacity was added between the Sixth (1981-85) and the Seventh Plan (1986-90).

Mobilising Finance and Acquiring Foreign Technology

In the 1920s Brazil imported nearly 100 per cent of its domestic consumption [Baer 1969:61]. By 1936 Brazil was producing about 74,000 tonnes of steel, somewhat reducing its import share. Local production in the 1920s was confined to small charcoal-based units with Belgo Mineira, a foreign company, producing the largest share of Brazilian output. Rising imports and the refusal of Belgo Mineira to expand capacity prompted state intervention. International tensions prior to second world war, which restricted the access to steel technology from the world market, compelled the military to investigate the possibilities of establishing a steel industry in Brazil [Hilton 1982].[6] Under president Getulio Vargas, the minister of war in 1931 created the National Steel Commission. Although local capitalists were wary of the government's attempts to set up a large coke-based integrated works they were never excluded [Evans 1979:89]. However, the scale of investment and the complexity of integrated steel production was much too daunting for Brazilian private capital.

Bargaining with the governments of Germany and the US in late 1930s to obtain capital equipment ultimately paid off for Brazil, a typical strategy late industrialising countries resort to to override structural dependence. However, US Steel withdrew from the project when it failed to secure equity control. This reflected the general vulnerability of borrowers of technology. Similar to the Japanese unwillingness to transfer technology to Korea, US Steel also found it against its interest to transfer technology and forego exports to the growing Brazilian market.[7] However, lest the Germans clinch the deal, the US Export-Import Bank in 1940 promised to provide $ 20 million to finance the project [Baer 1969:76]. The loan was raised to $ 45 million. State involvement of the supplier country is also typical of such transactions, aimed to promote national capital, in this case American equipment suppliers. In 1941 the National Steel Company (CSN) at Volta Redonda in the state of Rio de Janeiro was formed. About 50 per cent of the initial investment requirement of $ 25 million was provided by the savings and pension banks [Baer 1969: 76]. The supply of slabbing and rolling mills was delayed by Mesta Machine of Pittsburgh as international war-like conditions emerged. As a result the cost of the project increased by 60 per cent. In 1948 the first integrated plant with a capacity of 0.27 mt ingots was completed.

The Indian experience with external suppliers has been similar to Brazil's in terms of financial dependence, scale of plants, and process technology acquired. Western countries and international agencies, particularly the World Bank, did not favour state-sponsored heavy industrialisation in India.[8] TISCO notwithstanding, India's technological capacity and financial resources were limited. However, the government's plans were ambitious, targeting three 1.0 mt plants. Strategic bargaining by the Indian state with foreign players was essential. Britain, when first approached, immediately turned down the request. Soon thereafter a West German consortium offered to construct a half-a-million-tonne plant at Rourkela in the eastern state of Orissa. The Germans offered only very small blast furnaces. Not to be outdone, prime minister Jawaharlal Nehru successfully signed an agreement with the Soviet Union for a 1 mt plant at Bhilai in central India.[9] Both Britain and

Table 1: Integrated Steel Capacity Expansion in Brazil

Plants	Initial Capacity	Phase I 1967-74	Phase II 1970-79	Phase III 1973-88	1996 Output
CSN (0.27)*	1.4mt	1.7 mt	2.5 mt	4.6 mt	4.4 mt
COSIPA	0.5 mt	1.0 mt	2.3 mt	3.5 mt	3.6 mt
USIMINAS	0.5 mt	1.4 mt	2.4 mt	3.5 mt	4.0 mt
CST	–	-	–	3.3 mt (1976-83)	3.6 mt
ACOMINAS	–	–	–	2 0 mt (1975-86)	2.4 mt

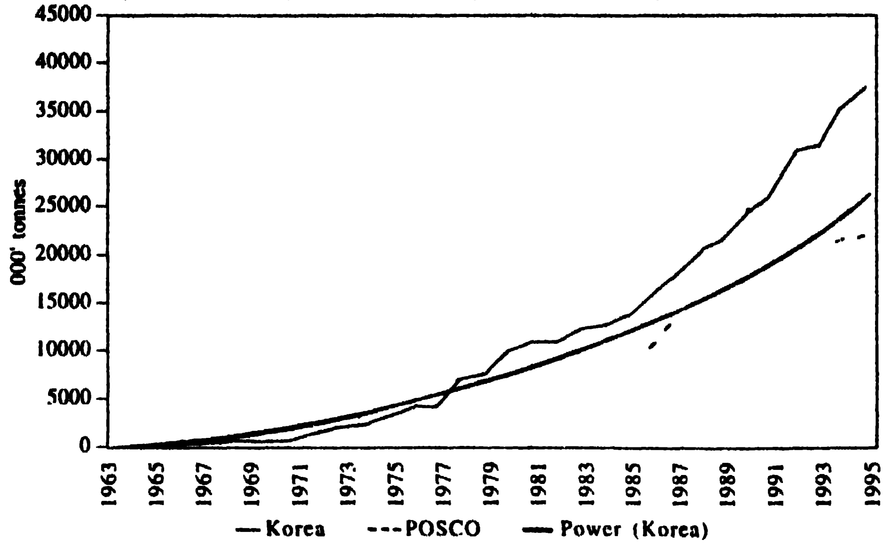
Note: * initial capacity.
Source: Soares (1987) and Instituto Brasileiro Siderúrgica (1997).

Table 2: Investment and Expansion of India's Integrated Public and Private Sector Steel Industry

Five-Year Plans (FYP)	Overall Allocation (Rs Billion)	Share of Public Sector Steel Outlay to Total Outlay (Per Cent)	Share of Public Sector Steel Outlay to Total Outlay (Per Cent)	Share of Public Sector Steel to Total Public Sector Outlay (Per Cent)	Annual Rated Capacity of Crude Steel at the end of FYP (Million Tonnes)		
					Public Sector	Private Sector	Total
1st (1951-56)	37 60	52.13	0.88	1 68	-	1.5[a]	1.5
2nd (1956-61)	77.20	60.52	4.53	7.49	3.0[b]	3.0[c]	6.0
3rd (1961-66)	126.71	67.69	5.29	7.81	5.9	3.0	8.9
4th (1969-75)	247.59	63 73	4.53	7.10	6.9	2.0	8.9
5th (1975-81)	671.45	59.72	3.33	5.58	8.6	2.0	10.6
6th (1981-85)	1,722.10	56.62	2.32	4 10	9.4	2.2	11.6
7th (1986-90)	3,481.48	51.70	1.84	3.57	12.4	2.3	14.7
8th (1992-97)	7,980.00	45.24	1.83	4.04	14.85	3.1[d]	17.9

Notes: Total of six public sector integrated plants and one private sector plant, - negligible, [a] Two private sector plants (TISCO 1.0 mt and IISCO 0.5 mt); [b] Three 1.0 mt public sector plants; [c] capacity expansion TISCO 2 mt and IISCO 1 mt; [d] IISCO's capacity phased out to 0.45 mt, new greenfield Vizag with 3.0 mt commissioned.
Source: Steel Authority India Limited (1996).

Figure 1: Output and Capacity Expansion by the Korean Steel Industry



Note Data for POSCO for selective years 'Power (Korea)' is a linearised trend for Korean output.
Source: Korea Iron and Steel Association, various years; and Pohang Iron and Steel Company, personal communication

West Germany agreed to provide technical and capital assistance. The West German consortium went further by drastically altering the design of the plant in favour of larger blast furnaces and introduced India's first BOFs. However, doubling the designed capacity for the German plant to one million tonnes entailed inordinate delays. Their engineering skills notwithstanding, the Germans squeezed the additional capacity into the original plant layout, congesting and effectively curtailing future possibilities.[10] The British-aided plant had no Detailed Project Reports, reflecting the weakness of the Indian state in bargaining with technology suppliers. The project was also plagued by construction delays. All three 1.0 mt plants commissioned in India with the aid of British, German, and Soviet assistance exhibited varying technological and financial attributes.

The post-war expansion of the steel industry in Brazil was state-owned more by default than by design. Unable to marshall resources, the industrialists of Sao Paulo, with the state of Sao Paulo as a partner, yielded to federal financing for the COSIPA plant near the city of Sao Paulo. Loans from the government's National Bank for Economic Development that set up the new steel company in 1953 were progressively converted to equity [Baer 1995:249]. The plant was finally completed in 1965. Rather than completely relying on foreign suppliers for the COSIPA plant, the state-owned CSN worked with American and British suppliers to equip the plant. The participation of a local firm indicated local technological capability. However, like other plants of the time, COSIPA installed very small BOFs.

Initially firms from advanced capitalist countries were heavily involved in late industrialising countries as both suppliers of capital and technology. Foreign ownership, however, was restricted. As Japan continued to expand capacity at home, its need for ensuring secure sources for raw materials became critical. Brazil and India with high-quality iron ore deposits were considered important sites. Japanese firms selectively invested in mines in both countries and in Brazil even participated in a steel project. In addition to COSIPA, another integrated steel plant, USIMINAS, was proposed in the Brazilian state of Minas Gerais.[11] After creating the company in 1956, negotiations were held with the Japanese, Germans, and some east European countries. Nippon Steel of Japan headed the consortium for the construction of half-a-million-tonne capacity plant. Production was started in 1962. In lieu of planning and equipment supply, the Japanese agreed to 40 per cent of equity [Baer 1969: 81]. They also provided 60 per cent of equipment credits at 6 per cent interest payable over 15 years, with interest-free loans for the first three years. Such soft terms were a result of Japan's coming of (industrial) age and USIMINAS was designed to be a showcase project [Dahlman 1978:45]. It was a modern plant, incorporating 50-tonne BOFs. It may be recalled that in the late 1960s the Japanese also participated in Korea's first integrated steel project in Pohang. They supplied capital and technology but unlike in Brazil were barred from owning equity.[12]

The pattern of ownership in Brazil, however, remained skewed in favour of state-ownership. Structural dependence implied that shortfalls arising from construction delays must ultimately be borne by the state. This was true in the Brazilian case, even with foreign capital participation. As in the case of the COSIPA plant in Brazil, when Japanese construction costs escalated, the National Bank for Economic Development (BNDE) was compelled to inject additional funding. As a result Japanese equity was diluted to about 20 per cent [Fischer et al 1988:167], falling to about 13 per cent before COSIPA's privatisation in 1991. The federal government through BNDE, had over 50 per cent equity of both COSIPA and USIMINAS. The local state governments owned about 24 per cent each in their respective plants. Government companies, including steel firms and the state-owned mineral pro-

Table 4: Employment in the Steel Industry

	1988-89	1994-95
India		
Five Plants (excluding Vizag)	219,997	183,459
Vizag	-	16,656[a]
TISCO	41,422	44,736
IISCO	38,032	18,833
Brazil	167,414 (1989)	77,547 (1996)
South Korea[b]	62,128	72,099 (1993)
POSCO	22,621 (1989)	20,397 (1995)

Notes: [a] operations, township, and captive mines
[b] Iron and Steel Industries.
Source. Korea Iron and Steel Association, SPOSCO, Steel Authority of India, Instituto Brasileiro Siderúrgica, various issues

Table 3: Comparison of Integrated Greenfields in Brazil, India and Korea

Plant	Country	Cost/Ton	Blast Furnace Size (m^3)	BOF	CC	Capacity	Location	Main Products
CST	Brazil	$1,043	3,707	2x280	No[a]	3.3	Coastal	Slabs
Açominas	Brazil	$3,050	2,294	2x200	No	2.0[b]	Inland	Semi-finished Products
Vizag	India	$3,000	3,200	3x130	Yes	3.0	Coastal	Long Products
Kwangyang	Korea	$637[c]	3,800	2x250	Yes	2.7[d]	Coastal	Flat Products

Notes. [a] Under construction; [b] rolling mills purchased but not installed, [c] other estimates are $480, $605, and $1,000 per tonne (See Table 3.3), [d] first phase only, total capacity today is 14 mt.

ducer CVRD, and some small private groups controlled the remaining shares. Increasingly, however, with successive expansion of its integrated plants, SIDERBRAS – the state steel holding company – absorbed the financial liability of these plants.

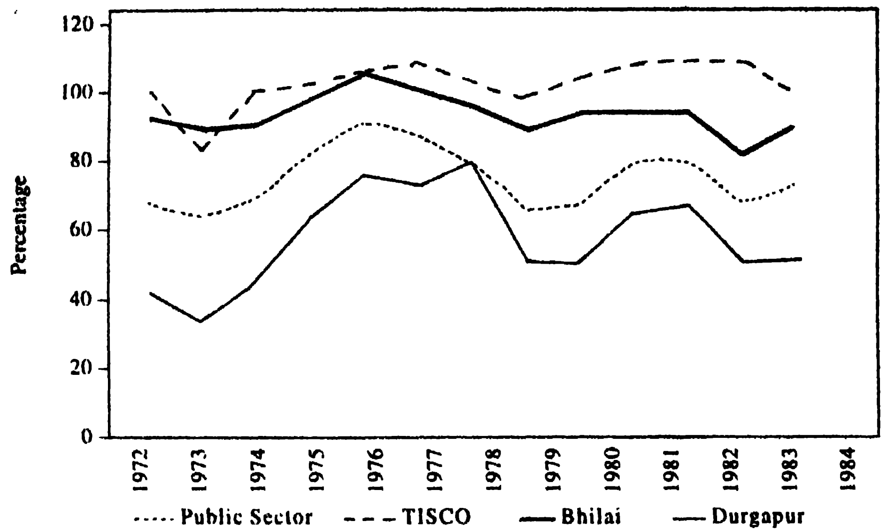
Financing of Indian plants was relatively straightforward. The bulk of the funds came from the state treasury, the rest from foreign sources. India's economic status and its geopolitical alliances ensured relatively easy terms and conditions for financing capital equipment for the first three 1.0 mt plants. They varied from 2.5 per cent to 6.3 per cent interest rate with repayment periods ranging from three to 25 years [Krishna Moorthy 1984:87]. West Germany had the most stringent conditions and also entailed a greater share of foreign exchange requirement (56 per cent) while the Soviet Union offered the easiest terms at 2.5 per cent interest for 12 years with a foreign exchange component of 49 per cent [Krishna Moorthy 1984: 90]. For the three 1.0 mt plants, the foreign exchange component was around 51 per cent of the initial investments. The first expansion of these plants reduced the foreign exchange component to about 47 per cent.

Growth of Steel-making Capacity

In 1971 the First National Steel Plan of Brazil outlined an installed capacity of 20 mt by 1980. This target was not met, even though the rate of expansion was quite rapid. Between 1960 and 1970, steel output tripled from 1.9 mt to nearly 6 mt, while between 1970 and 1980 output tripled again to 15.3 mt [Guerra, Botelho, Teixeira 1989:40]. Investment was high, picking up from 1976 until 1979 and declining thereafter. The Brazilian debt crisis dampened the investment momentum in the 1980s, picking up again in the early 1990s. Nearly $ 21 billion was invested with an annual average of nearly $ 1.5 billion. Aside from capacity expansion of existing plants, two greenfields (CST and Acominas) were constructed. CST is a technologically modern plant with major equipment from Japan and Italy. Kawasaki Steel of Japan and Finsider (part of the Italian state-owned Italsider) have 13 per cent each capital participation in CST (personal communication from CST, May 1988). Prior to its privatisation, Acominas was 100 per cent state-owned.

For India's fourth integrated plant in Bokaro, the Soviets came forward with assistance after president Kennedy could not persuade the US Congress nor the American steel industry to participate in

Figure 2: Capacity Utilisation in India



Note: Bhilai and Durgapur represent India's two widely varying performers. TISCO is the private sector company

Source: Krishna Moorthy (1984), Steel Authority of India, Statistics for Iron and Steel Industry in India, various years

Indian state ventures. US Steel had insisted that management of the plant be entrusted to them for at least 10 years. This was unacceptable to the Indian government and India withdrew its request for US aid.[13] Even Tata of TISCO, the private sector integrated firm, tried to convince the US of the inability of the Indian private sector to raise the necessary capital. Negotiations were renewed with Britain, West Germany, Japan, and the Soviet Union with the expectation that no single country would be able to finance the entire project and at the same time India would not have to depend on any one country. The Soviet Union, however, offered to provide financial and technical assistance for the entire project. In subsequent years India also upgraded its three 1.0 mt plants and added two integrated greenfields – at Bokaro in the eastern state of Bihar and at Vishakapatnam in the southern state of Andhra Pradesh as part of its steel expansion plan.

The Soviets also participated in the Vishakapatnam (Vizag) plant. It is India's most modern integrated plant. Of the total project cost of Rs 60,000 million (equivalent to $ 4,615 million) only 6.5 per cent has been provided by the Soviet Union (personal interview, Rashtriya Ispat Nigam, New Delhi, July 1987).[14] While an Indian consultancy firm has been retained to oversee the construction of the Vizag plant, reliance on foreign technology and capital has continued.[15] Up to the steel-making stage the Soviet Union has collaborated on the project. Two rolling mills were provided by the former Czechoslovakia and the third-one by former West Germany. The collaboration with the former East Bloc country has been based purely on financial conditions. Its financial package is a soft loan carrying an interest rate of 2.5 per cent repayable over 20-25 years. It is also payable in Indian rupees through barter trade. On the other hand, the West German loan carries an interest rate of 14 per cent.

IV
Institutional Challenges to Industrial Change

Without a doubt, the states in all three late industrialisers overcame the problem of resource mobilisation and technology availability, albeit from different sources and in different degrees. They successfully added capacity, contributing to the general shift of productive capacity away from the advanced capitalist countries. However, the expansion in Brazil and India has not gone unchallenged. Several problems have subsequently arisen, mainly in the areas of technological capability and financial performance. States in these two countries, despite their heavy involvement in the economy and industry, have been subject to institutional weakness. This was in spite of the independence of Indian businesses and the state from foreign capital [Encarnation 1989]. This institutional weakness is different from 'social capability', which centres on the development of human capital [Abramovitz 1989]. Rather institutional incoherence is a result of the penetration of political and social forces that effectively undermine the state's regulatory capacity to organise industrial production. This could be in the form of political appoint-

ments of state sector personnel, often resulting in the lack of continuity in management. Both Brazil and India have been subject to such forces and therefore exhibit far greater degree of organisational and institutional weakness than Korea.

The Korean government was quite successful in keeping popular forces at bay. History was on its side as well. Korean state autonomy evolved from the dissolution of archaic social structures [Hamilton 1986, 1983, Kwon 1991, Amsden 1989: 27-5] and US geopolitical interest [Haggard 1992]. Relying on state-guided capitalist industrialisation [Lim 1985:35], the military leadership under Park Chung Hee forged new institutional arrangements between the state and workers. State support of dynamic yet state-dependent industrial groups and repression of labour were the two main foundations of capital accumulation. State autonomy was enhanced by sacking officials and creating a centralised, technocratic Economic Planning Board (EPB) and nationalising and reorganising the banking sector [Koo and Kim 1992:125-26, Haggard 1992:64-65). Dissent and opposition were silenced by both force and rapid growth, making bureaucratic economic management relatively easy [Ogle 1990, Deyo 1989, 1989, Lim 1985:71-72].

As in the Brazilian and Indian cases, the ideology of industrialisation was grounded in nationalism. However, unlike India, Korea did not shut out foreign capital, and unlike Brazil it preferred loans over foreign direct investment [Griffin 1991: 122-23]. Additionally, the state's access to and extraordinary control of foreign exchange allowed it to select investment projects and orchestrate big business expansion. Unlike Korea, where the military state was insulated from everyday politics, the Brazilian and Indian states have been captured by capitalists and organised workers alike. While private capital in Brazil, domestic and foreign, sought to extract state largesse, such as subsidies, public sector unions in India, with the help of the state, protected their relatively high-paying jobs. Consequently, the performance of the state-owned sectors in Brazil and India have been less than spectacular, despite significant capacity additions. How institutional incapacity has technologically and financially hamstrung the steel industries of Brazil and India is discussed below.

New Technology and Institutional Weakness

The relatively early entry of Brazil and India understandably resulted in small plant size, typically under one million tonnes. India's three 1.0 mt plants in the 1950s and 1960s were ambitious by most standards. However, blast furnace innovations by the Japanese had raised the minimum efficient scale significantly. Related changes in rolling mill technology added further to overall scale of production. It was not unusual to find integrated plants ranging from 2.0 to 10.0 mt annual capacity. Consequently total capital requirements also increased dramatically, running into the billions of dollars.

The evolution of capacity expansion in Brazil and India shows that neither one has been able to keep up with changing economies of scale. By 1973 Brazil's largest plant was under 2 mt and the average size of three state-owned integrated mills was 1.37 mt. On the other hand, India's Bhilai plant built by the Soviets had already reached 2.5 mt by 1967. The average size in the 1970s for the four original state-owned integrated plants was 1.9 mt, considerably larger than those of Brazil. However, both averages fell considerably short of the prevailing Japanese average of 7.6 mt [National Academy of Engineering 1985:34].

In the past two and half decades both Brazil and India increased their plant size but could not maintain best-practice scale economies. With further investment, Brazil was closer to attaining economic scales with average plant size of over 3.5 mt of crude steel capacity. This was attained over several years in several phases. The Indian average, on the other hand, dropped drastically for want of investment funds, technical problems with existing capacity, and the government's bailing out of IISCO, a technologically obsolete firm. In the mid-1990s India's average plant size, including India's most recent greenfield, stood at 2.56 mt. This average is considerably lower if real capability is considered. For example, two plants located in the eastern state of West Bengal, IISCO and Durgapur Steel, have been unable to produce at their designed capacity. On an average they have had a utilisation rate of only 47 per cent during the 1988-93 period [computed from Steel Authority of India Limited 1994:21]. It is instructive to note that POSCO, Korea's state-owned firm, began with a 1.03 mt capacity in its first stage construction of Pohang and attained a size of 5.5 mt by 1978. By 1995 average integrated plant size stood at 11.5 mt, exceeding the Japanese average.

With declining demand in the advanced industrialised countries and technological obsolescence in the 1970s and 1980s in the mature countries, Korea could induce competition among equipment suppliers and extract state-of-the-art technology at low cost for its integrated mills. For example, POSCO purchased a blast furnace from Davy McKee, a British firm, at an interest rate of 4 per cent below OECD standards. With increased competition among equipment suppliers, ironically the sellers have also become dependent on creditworthy buyers.[16] This ability to bargain with equipment suppliers could not be reproduced in Brazil and India because of a lack in strategic vision. The institutional delays in project completion also undermined bargaining effectiveness. Both countries set up greenfields, CST and Acominas in Brazil, and Vizag in India in the 1980s, the decade in which POSCO's Kwangyang Works was constructed. Yet a closer examination shows that plants in Brazil and India, despite their recent vintage, display various symptoms of poor planning.[17] These are in the areas of technology choice, product mix, siting, and investment costs.

Comparing costs internationally is difficult. The reluctance of firms to divulge the actual terms and conditions make the numbers at best reasonable estimates. Brazil's greenfield CST, with a 3 mt of annual slab capacity (without continuous casters) has been estimated to cost a massive $3.13 billion, an average of $ 1043/tonne (Table 3). Seventy per cent of this outlay was for construction and equipment,

Table 5: Diffusion of Modern Technology: BOF[a] and Continuous Casting[b]

	1960	1965	1970	1975	1980	1985	1990	1995
US	3.7	19 4	55 8(3.7)	74.3(9.1)	83.9 (20 3)	89.0(44.4)	94.3(67.1)	100 0(91 0)
Japan	14.9	69.0	95.0(5.6)	98.7(31 1)	100.0 (59.5)	100.0(91.1)	100 0(93 9)	100.0(95 8)
Brazil	13.3	30.9	45 9(0.8)	58.3(5.7)	87.7 (33 4)	95.2 (43.7)	97 1 (58.5)	100.0(71 6)
India	-	11.1[d]	11.4	18.8	30.5	44.6	57.0	66 1(21.7)
S. Korea	-	-	-	93.5[c] (19 7)	98.4(32.4)	100.0 (63.3)	100.0 (96.1)	100 0(98.2)

Notes: [a] BOF share as percentage of non-electric furnace steel-making;
[b] continuous casting shares in parenthesis;
[c] BOF share nearly 100 per cent and CC figure for 1996;
[d] figure for 1968;
[e] integrated production in Korea began in 1973;
- not applicable.

Source: Lücke (1993); International Iron and Steel Institute (1996); Instituto Brasileiro Siderúrgica (1997).

while the remaining 30 per cent was for site preparation and interest payments during the construction period.[18] CST's equipment, up to the hot metal stage, is 'world class', with a blast furnace capacity of 3.285 mt with a yield rate about 89 per cent (from the ingot up to the slabbing stage). However, CST did not produce high grade products and it was commissioned earlier than Korea's Kwangyang Works. Yet its investment cost was higher than Korea's Kwangyang Works of $ 637/tonne, less than two-thirds the cost of CST.[19] POSCO also claimed that the second phase of another 2.7 mt capacity cost only $ 370/tonne. Such a low cost has been attributed to the completion of most of the infrastructure in the first phase. The average investment per tonne for 5.4 mt worked out to only $ 480. The total investment being a little more than two and a half billion dollars.

Technologically Brazil's CST, Korea's Kwangyang, and India's Vizag plants share similar characteristics – modern, large-scale blast furnaces, BOFs, and computerised process controls. However, there are several glaring shortcomings when CST and Vizag plants compared to Kwangyang. First, the investment cost per tonne. All the non-Korean plants have a much higher cost than Kwangyang, with Vizag's cost at $ 3,000 per tonne. Admittedly, there is considerable disagreement over POSCO's claims of $ 637/ton (personal interviews, Nippon Steel Corporation, Nippon Kokan, Japan Iron and Steel Federation, Tokyo, October 1987; SIDERBRAS, Brazilia, December 1987). However, if we use the market rate of $ 1,000 per tonne, we still find POSCO to be investment competitive. Though CST's costs are marginally higher, its plant and equipment are well below Kwangyang's technologically. Unlike Kwangyang's wide range of flat products, CST produced semi-finished slabs for the export market. Until recently, CST relied on the traditional ingot casting method, thereby bypassing investment in expensive continuous casters and rolling/finishing mills.

Second, Acominas is located inland whereas CST is not. Japan, followed by Korea, has demonstrated the efficacy of tidewater locations to import raw materials and export finished products. Coastal locations also have built-in economies of scale as export markets can be potentially tapped should the need arise. CST was designed for the export market and Kawasaki's participation has had a bearing on its siting. For Acominas on the other hand, the nearest port and most major markets are over 400 km away. It relies on imported coke that has to be transported over long distances by rail.[20]

Third, the product mix of output either deviated from actual market demand or was simply poorly planned.[21] All the non-Korean greenfields produce relatively low value added products, such as semi-finished slabs, billets, and long products, such as wire rods. While slabs can always be finished into high quality flat products, including coated sheets, billets and long products are essentially destined for the construction market where quality is not a major requirement. India's latest integrated greenfield at Vishakapatnam has been one of the most expensive plants in the world. Its choice of product mix (long products) is questionable as well, given cheaper alternative technologies for such products. Acominas' product mix was designed to meet the emerging railway products market but the Brazilian National Railway Project never took off. This is not surprising given the powerful transnational automobile industry lobby. The huge investment incurred for the wrong products when there are far less expensive alternative technologies, such as DRI/scrap-based processes, reflects the institutional weakness of the two governments.

The inability of both the Indian and Brazilian governments to avoid such elementary yet very costly technical blunders can be attributed to the lack of state autonomy. Whereas POSCO could bargain hard with foreign suppliers precisely because of its insulation from political and bureaucratic meddling, Brazil and India were beholden to various political forces and regional rivalries. The inefficiency of the Indian public sector steel company was partly a result of bureaucratic regulation that undermined coherent decision-making. Numerous government agencies worked at cross purposes, slowing the investment momentum and creating a technologically deficient industry. The haphazard manner of technology upgrading is evident from the fact that new technology such as BOF-CC is adopted for expansion without scrapping the old technology such as the OH and ingot casting. The Soviet-assisted Bhilai plant is a classic example where both old and new technology coexist, leading to technological fragmentation [D'Costa 1998]. While such decisions are based on cost considerations they do not address the establishment of long-term viability of capital accumulation through technology-induced productivity increases [Sengupta 1984:207-08].

Unlike the Brazilian state-owned firm, the Korean state-owned company has been able to reduce its dependence on foreign capital and enhance its financial strength. For example, POSCO reduced the foreign loan component from 53.4 per cent for Pohang to 29.3 per cent for Kwangyang [Pohang Iron and Steel Company 1987:4]. Whereas self-financing was 75 per cent for Pohang, it was 100 per cent for Kwangyang, clearly reflecting greater availability of internal resources [US International Trade Commission 1988:10-16]. Almost all foreign loans for the Pohang plant have been repaid and only about 40 per cent ($ 676 million) for Kwangyang remained unpaid in the early 1990s [Pohang Iron and Steel Company 1992:8]. POSCO also raised revenues through stocks. In March 1988 POSCO released more than 25 per cent of its stock that was owned by private banks to the general public. Three months later they were traded at nearly triple the original value (*Metal Bulletin*, June 16, 1988:31). The value of 21 per cent of POSCO's 91.8 million shares was approximately $ 8.34 billion (717 won/US dollar). This represented nearly 6 per cent of the value of all shares listed on the Seoul Exchange at the time.[22] While normal profits have been low by private sector standards, POSCO's offer of stock dividends in lieu of cash dividends was readily accepted [US International Trade Commission 1988:10-16]. Standard and Poor granted POSCO an A+ credit rating, the highest attained by any South Korean company or any steel-maker in the world [*Business Times* 1992:67-68]. Raising loans on the foreign credit market is no longer a problem for the South Korean steel industry nor is POSCO dependent on the Korean Treasury.

Unlike the institutional paralysis found in India, the articulateness of the Korean strategy speaks volumes for institutional capacity. POSCO, with the help of the state, maintained an investment momentum and kept up with technological change. The Korean company found ingenious methods to create a world class steel industry. With institutional autonomy POSCO could resort to 'delay tactics' to secure best-practice technologies (personal interview, POSCO, Pohang, October 1987). One delay tactic entailed a negotiating process whereby POSCO first progressively stiffened the terms and conditions of purchasing technology to eliminate all but one potential supplier and then negotiated a technology transfer at favourable prices. Once the terms were accepted, they were quickly followed up for effective transfer and absorption of technology [Enos and Park 1988:234]

This kind of autonomy was missing in the Indian and Brazilian steel companies.

Institutional Capacity and Industrial Relations

The recent greenfields constructed by Brazil and India, though technologically not far behind Korea's, suffer from a host of commercial and financial problems. The expansion of steel capacity in Brazil and India has been also accompanied by unfettered growth in employment at the industry-level. While employment growth is difficult to check under a rapid investment programme, Korea has not succumbed to the pressures of maximising employment even though POSCO's public sector status makes labour redundancy difficult (Table 4). In contrast, India and Brazil have followed a growth path that is quite out of line with industry standards. The five Indian integrated plants with an aggregate crude steel output of 9.83 mt employed nearly 1,85,000 employees, compared to POSCO's 23,951 for an output of 20 mt in 1992. India's private integrated firm, TISCO, was marginally better than the state sector with 43,324 workers producing 2.5 mt of crude steel. This average of 57 tonnes per worker per year is close to SAIL's 53 tonnes per worker per year. The 1992 average per employee output for the Brazilian steel industry was 218 tonnes per year compared to Korea's 420 tonnes per year [Instituto Brasileiro Siderurgica 1997; Korea Iron and Steel Association 1995]. Japanese output per employee was 602 tonnes of crude steel for 1995, reflecting greater automation and more efficient operations.

The large discrepancy in employment between India and the others, and by implication productivity, can be explained by both technological and institutional factors. We have already examined the barriers associated with structural dependence and the challenges emanating from institutional weakness. Indian restructuring has been particularly hard hit from this weakness, compounded by the demands of public sector steel workers in alliance with various political parties. Unions are neither able to aggregate their collective interest nor, given their veto power, do they allow the state enterprise to make decisions that are relatively independent of political interference.

The over-politicisation of industrial relations, particularly by external agents, has led to severe overstaffing on the one hand and labour strife, albeit declining, on the other in many state-owned steel plants. Two of them in the state of West Bengal employed nearly 50,000 employees with a total output of less than 1.5 mt per annum, with average output in 1992-93 of less than 50 tonnes per employee a year [Steel Authority of India Limited 1994]. This is about 6 per cent of POSCO's 835 tonnes per employee output in 1992 [Pohang Iron and Steel Company 1996]. Different vintages of capital equipment, capital-intensity of the production process, and the degree of subcontracting have a bearing on such productivity differentials. Both of these plants in the state of West Bengal are labour-intensive and employed obsolete plant and equipment. However, politicisation also has been rampant, accounting for nearly 100 per cent of all the major steel-industry related industrial disruptions in India in the late 1960s and early 1970s [Krishna Moorthy 1984:336].[23]

Lately, industrial relations have been on the mend but excess manpower has been a heavy institutional legacy in India [Rudolph and Rudolph 1987:260-62]. A 'sons of the soil' policy by which local residents are employed with the gradual absorption of contract (construction) labour as permanent employees has added to the payroll without contributing to productivity.[24] For example, Vizag, India's most recent greenfield, which boasts state-of-the-art technology, was compelled by local political groups to hire a large number of the local population displaced by the plant. Nearly 25 per cent of them were illiterate [Venkata Ratnam et al 1995:269]. As project delays mounted nearly 13,000 individuals claimed to be displaced. Vizag already employs 15,000 workers, with average output per employee of 200 tonnes a year. Granted this is nearly two to four times the average of older integrated plants, both state and private, but is about a fourth of POSCO's average. The Indian private sector integrated company, TISCO, did not escape this 'compassionate' hiring practice found in the Indian state-sector and often fuelled by populist politics. At the time of its 1980s modernisation programme, it recruited 2,000 local unskilled and unemployed workers.

Brazil also suffers from institutional deficiencies, albeit on a lesser scale than India. The presence of foreign capital and their local partners within the framework of a corporatist regime [Bordin 1986, Wesson and Fleischer 1983:56] has limited the capacity of the Brazilian state to empower state-owned firms to maintain commercial viability. On the one hand, labour has been repressed under military regimes and on the other, pampered into participating in the corporatist arrangement.[25] Thus the favoured unions in the industrial sector, particularly those under the public sector, have benefited from this relationship. Generating employment and maintaining high wages in the public sector as state objectives have subsequently followed, creating institutional impediments to technology-based restructuring. Even as early as 1967 when the First National Steel Plan was being formulated, the Special Advisory Group on the Steel Industry reported that there was surplus manpower in the industry [Dahlman 1978:78]. High levels of employment have continued in the state-owned steel plants. In 1990, the five state-owned integrated plants had an employment level of 59,635 [World Bank 1992:86] and total crude steel output of 15.81 mt in 1991 [Instituto Brasileiro Siderurgica 1996:1/7]. Roughly, per employee output was 265 tonnes per year or 32 per cent of POSCO's output per employee.

In the late 1980s the Brazilian state steel industry apparently employed 40 per cent more labour than actually required (personal interview, SIDERBRAS, Brasilia, December 1987). To be more competitive industry officials at Acominas opined that manpower should be reduced by 10 per cent (personal interview, SIDERBRAS, Brasilia, December 1987). In individual plants, such as Acominas, industry officials suggested that as much as 30 per cent of non-production staff of 2,000 was excess manpower (personal interview, Acominas, Belo Horizonte, December 1987). But at the same time state managers pointed out that retrenching labour was counter to the 'social' objective of maintaining employment. This implied a low diffusion rate of automation on the one hand and reduced autonomy of the state enterprise in expanding best-practice technologies on the other.

Korea's POSCO faced a very different industrial relations system. The state established the Federation of Korean Trade Unions (FKTU) to consolidate all unions under a single agency and most unions were co-opted [Deyo 1987:185].[26] Labour-management councils were set up at the behest of company management under the state dominated Korean industrial relations [Im 1992]. Strikes were banned, particularly in public sector firms. In 1987 national labour laws permitted union formation. But they neither undermined the FKTU nor eliminated the consent of the ministry of labour for forming unions. Evidence of an anti-labour stance persisted even as Korea in 1991 became a member of the Geneva-based International Labour Organisation.

Until 1988, POSCO's employees were non-unionised. All grievances were

handled by labour-management councils that met once a month. POSCO's management has been insulated from the government, thus enabling POSCO to arbitrate labour disputes effectively. In August 1987 when most of Korea's heavy industrial workers went on strike demanding higher wages, POSCO's employees were conspicuously absent [*Business Korea* 1987:11-12; personal interview, POSCO, Pohang, October 1987]. The demands of POSCO labour, despite widespread strikes in other related sectors, were contained by a number of strategies. First, POSCO wages have been maintained at twice the manufacturing average and employment is lifetime. POSCO employees also get excellent non-pecuniary benefits, such as housing and children's schooling. Second, as a significant portion of the work is contracted out [Amsden 1989: 209] and POSCO jobs are coveted, wage demands are stabilised through higher wages for regular workers. The threat of further subcontracting dampens many labour demands. Workers themselves are quite conservative, especially older ones. Third, POSCO management has distributed about 10 per cent of its stock to its employees. These strategies, in conjunction with a highly regimented workforce, have made POSCO strike-free and highly competitive. Its employees log an average of over 55 hours per week, higher than most other Korean industries (personal interview, POSCO, Pohang, October 1987).[27] Absenteeism is very low and paid leave extremely limited [Amsden 1989:212]. With recent democratisation of Korean politics [Hart-Landsberg 1993:279], independent unionisation in POSCO did not catch on [Innace and Dress 1992:176]. Formed in 1988 POSCO's union lasted just three years, indicating the weight of 'patriarchal company welfarism' [Hoon and Park nd:5] in stifling collective dissent.

Delays, Debts and Deficits

Inexperience with large-scale projects can understandably lead to delays, cost overruns, and losses. But as we have seen, even after overcoming structural dependence, institutional weakness has been a continuing feature in Brazil and India. Korea on the other hand mostly avoided these difficulties. In contrast to Brazil and India, where project delays and cost overruns were common, POSCO contained construction costs by completing projects on time. Modern facilities notwithstanding, several greenfield projects in India and Brazil have been white elephants. For example, the costs incurred for Acominas and Vizag were too high relative to international norms and did not justify the scale, location, or product mix. With respect to the industry as a whole, while Korea narrowed the technological gap with Japan, several Indian plants became technologically obsolete. It is evident that even as the state co-ordinated investments and expanded steel-making capacity it was beset with institutional incapacity.[28]

Compared to Brazil, the Korean experience has been different. For example, POSCO secured cheap supplier credits with 5-7 per cent interest and 10-20 year repayment periods [Paine Webber 1985:1-9]. Low wage rates for construction, round the clock construction work, and timely completion of projects contributed to POSCO's lower costs, especially by reducing the interest burden. In contrast, the Brazilian authorities have not been very effective in negotiating with foreign suppliers. Stringent financial terms and the general delays in project implementation raised costs significantly.[29] Further refinancing was needed that carried even stiffer conditions [CST 1985:15].[30] Cost overruns were higher in the case of Acominas, Brazil's newest greenfield plant. Most of the equipment was obtained from Europe, mainly Britain and France. Commissioning the plant took nearly a decade and Phase I remained incomplete as late as 1988. Millions of dollars of rolling mill equipment lay idle at the plant site for several years. Shortage of funds and conflicts over siting nearly doubled the original estimates. In 1978 the estimated cost was $ 2.7 billion. By the time the plant was completed in the early 1980s total cost was over $ 6 billion. Its interest payment alone was $ 2.246 billion [Acominas 1986], an amount exceeding POSCO's first stage investment for Kwangyang.

Institutional weakness has also meant financial dependence on international firms and negative return on investment. For example, CST relied on routine supplier credits (or tied loans) to finance equipment imports. But in exchange, SIDERBRAS, the state holding company, permitted foreign equity. Part of the agreement also included supplying a fixed amount of slabs from CST to be sold to Kawasaki and Finsider, its foreign partners. These commercial arrangements, while providing a captive market and a source for foreign exchange earnings, were not necessarily the best option for CST. For example, in the first half of 1988 CST's average slab export price was about $ 192/ton while the domestic price was $ 223 (calculated from *Metal Bulletin* July 21, 1988:25).

While export markets bouyed capacity utilisation and generated foreign exchange reserves, lower export prices translated into signficant losses for the firm and mounting debts as well. In 1987, SIDERBRAS, the state-owned holding company had over $ 17 billion in loans. Its profitability, measured in terms of net profits as a percentage of sales, from 1979 to 1985 has been consistently negative. The highest loss was negative 75 per cent in 1985 [SIDERBRAS 1987:38].

Nor has the Indian steel industry been immune from financial hemorrhaging. Various construction delays – over three years for the German-assisted Rourkela plant – and cost overruns have been typical. Investment cost for Rourkela, estimated in 1955, increased by over 80 per cent by 1963. At the end of 1982-83, with delays in project execution, the expansion cost for Bhilai for an additional 1.5 mt increased by nearly 200 per cent within eight years [Krishna Moorty 1984:107]. Although the foreign exchange component declined to 11 per cent, the additional expansion was again under open hearth process, a technology that was already obsolete. The Soviet-assisted Bokaro plant also suffered delays and cost increases and, despite easy credit terms from the Soviet Union, could secure neither large BOFs nor any continuous casters.[31] After years of indecision, the Vizag plant was finally completed at double the investment norm. The feasibility report for Vizag was prepared in 1971 and the Detailed Project Report in 1977, but actual construction did not begin until the mid-1980s. The 3.0 million expansion stage of the Vizag plant was completed in the mid-1990s. Its product mix of low value billets, bars, structurals, and wire rods is, commercially-speaking, quite inappropriate for a capital-intensive integrated process. It is apparent that the project was hastily conceived, despite years of bureaucratic wrangling.[32]

Like SIDERBRAS, the Indian state-holding company, SAIL, suffered from poor project management and commercial planning. SAIL has been profitable, as measured by net profit (after depreciation and interest but before taxes). However, its accumulated end-of-year balance, including adjustments made for dissolved companies, has been consistently negative during the 1972-86 period [Steel Authority of India Limited 1987a:25]. Between 1982 and 1984 the company racked up net losses of over Rs 3 billion. SAIL's internal resource position has been precarious. The problem has been exacerbated as government commitment for

steel investments has been waning.[33] In the Seventh Five-Year Plan (1985-90), only 1.84 per cent of the total plan outlay was devoted to steel [Pingle 1996:229], representing only 25 per cent of estimated required funds (personal interview, SAIL, New Delhi, July 1987). A price hike was the only way that SAIL could redress its financial predicament (personal interview, Joint Plant Committee, New Delhi, July 1987), undermining the very mechanism by which state-led capital accumulation was to take place.

In contrast, the Korean steel company had an annual average 233.85 billion won (nearly $ 300 million) net earnings after taxes during the decade beginning in 1986. POSCO's return on assets, though low, has been positive, reflecting on the one hand modern plant and equipment and on the other maintenance of lower prices for the larger accumulation process. Its internal resources have been large enough to maintain a fairly high rate of investment. From 1992 to 1996, POSCO invested a total of $ 10.69 billion (at won 800/$), or an annual average of $ 2.13 billion (personal communication, POSCO, December 1997). In the same period, the Korean industry as a whole invested twice as much as POSCO.

V
Technology Diffusion and Capability

Aside from institutional impediments that delay project planning and execution, low capacity utilisation also hampers the learning process. However, technical difficulties arising from the adaptation of foreign technologies to local conditions can be a source for technological capability. With accumulated industrial experience technology diffusion can be expected to be speeded up. While the rate of investment can be the basis for learning, learning also depends on capacity utilisation [Ramamurti 1987]. Demand determines the rate of utilisation of plant and equipment. Plants designed with large economies of scale imply long production runs and hence greater susceptibility to utilisation rates. To maintain high rates of utilisation Brazilian and Korean plants have tapped domestic and export markets. Consequently their utilisation rates have been high, despite the cyclical nature of the steel industry. In most years Brazil had over 90 per cent utilisation rate, while Korea's POSCO had close to or over 100 per cent [Paine Webber 1987:Table 17; Innace and Dress 1992:250]. India's utilisation rates have been much lower, anywhere from under 40 per cent in the case of IISCO to over 90 per cent in Bokaro (Figure 2).

India's capacity utilisation has been low mainly due to deterioration of plant and equipment. Slackening demand had occasional effect as well. Capacity utilisation for Rourkela during 1959-60 to 1967-68 averaged only 67 per cent. Later, IISCO and Durgapur faced severe problems. Their combined capacity utilisation from 1974-75 to 1993-92 averaged 60 per cent [Steel Authority of India Limited 1994]. The state-owned Bhilai plant has consistently maintained high utilisation rates, whereas the public sector as a whole and the state-owned Durgapur plant have faced considerable difficulties (Figure 2). India's actual production has sharply deviated from the rated capacity. Whereas the Detailed Project Report capacity refers to the installed capacity as stated in the project report it is often an engineering artifact. The age of these plants, inadequate technological upgrading, their reliance on poor quality raw materials, and inadequate maintenance have rendered them incapable of achieving a high utilisation of designed capacity. Thus the rated capacity for Durgapur, Rourkela, and IISCO is questionable. Based on actual production, Durgapur's capacity prior to modernisation was less than 0.75 mt, Rourkela is 1.41 mt, and IISCO, a mere 0.37 mt [Steel Authority of India Limited 1994].

Not dogged by the institutional incapacity of the Indian state-owned industry, the private steel firm TISCO performed much better commercially. Technologically, however, it faced similar problems of plant and equipment obsolescence, excess employment, and low productivity. Its commercial successes rested on its managerial autonomy but also on its participation in the state-led price cartel in a sheltered domestic market. It too faced technological fragmentation, with several small, ageing blast furnaces, and a steel melting shop using obsolete OHFs and more recent BOFs. After recent modernisation and upgrading of facilities both ingot casting and continuous casting coexist. Though the plant has averaged a high capacity utilisation of over 97 per cent [Steel Authority of India Limited 1994:28] and high profits [Krishna Moorthy 1984:172], its labour productivity is very low compared to the Brazilian and Korean averages. In 1992-93 its output per employee was only 65 tonnes per year.

The inability of Indian integrated plants to obtain maximum output from plant and equipment, among other things, is also dependent on periodic investment in modernisation. In the Indian case investment in the steel industry has been quite erratic. For the first three five-year plans (1951-66) investment funds allocated to the public sector steel plants increased dramatically [Steel Authority of India Limited 1987b:143, see also Table 2]. But with the fourth FYP onward the importance of the steel sector consistently diminished. In the Seventh FYP (1985-90) the share of total government outlays for the steel sector was a mere 1.8 per cent and 3.5 per cent of total plan outlays and total public sector outlays respectively. Most of these expenditures have been directed toward capacity expansion; only about 5 per cent has been spent on updating technology [Steel Authority of India Limited 1987b:144]. Korea, on the other hand, rapidly adopted large blast furnaces and opted for BOFs and continuous casting (Table 5).

In contrast, partly because of earlier entry and partly because of institutional incapacity, India was saddled with smaller blast furnaces, obsolete Bessemer and open hearth furnaces, and lagged significantly behind Korea and Brazil in continuous casting. Expansion and modernisation of plants took place in fits and starts with unremarkable industrial performance. For example, IISCO, established in 1939, used the Duplex-Bessemer and OH process. Until 1965-66 capacity utilisation averaged 90 per cent; recently it has been hovering around 40 per cent of the original. Although the Bessmer converters were phased out in 1988, thereby more than doubling capacity utilisation, the plant is technologically obsolete. Plans to modernise it have remained on paper for several years.

An international comparison of diffusion of modern technology, such as the BOF and CC, reveals that among the three late industrialising countries Korea's rate of diffusion has been the fastest. By 1975, over 93 per cent of Korea's integrated output as a share of non-electric furnace output was under the BOF, compared to Brazil's 58 per cent and India's 19 per cent. Since then Brazil has closed the gap with Korea, while India still lags behind. In 1995, both Brazil and Korea had 100 per cent integrated output under the BOF compared to India's 66 per cent. In continuous casting, Korea matched Japanese standards by 1990 with a 96 per cent ratio, while India had a paltry 22 per cent. Brazil narrowed the CC gap in the 1990s to nearly 72 per cent in 1996. India still lagged behind with only 34 per cent.

The inability to keep up with modern technologies was also compounded by learning difficulties [D'Costa 1998]. The

adoption of different processes from diverse sources, varying plant size, and institutional bottlenecks made building technological capability a challenging task. For example, the Rourkela blast furnaces took five years to reach the rated capacity [Krishna Moorthy 1984:92-94], whereas POSCO's first blast furnace took less than two years. The frequent changes in technical parameters of the equipment supplied by different foreign companies (particularly by the Soviet Union for three of the five state-owned integrated plants) resulted in fragmentation constituting varying vintages of capital equipment, belonging to different processes, of different sizes, and from different suppliers.[34] The gradual learning-by-doing by Indian firms accomplished in the last three decades was considerably reversed [D'Mello 1986:182]. POSCO's technology strategy has been quite different. It sourced similar types of equipment from the same supplier. Thus Davy McKee supplied POSCO with nearly all of its identical blast furnaces. The second phase expansion of Kwangyang was a virtual reproduction of phase one. It cut down on site preparation and eliminated any potential new problems that could have arisen with different plant and equipment. Capacity expansion based on duplicating modern facilities and repeating imports of similar equipment thus placed Korea's learning on a higher level.[35] The successive installation of similar-sized blast furnaces exhibit increasingly shorter learning cycles. For example, the second BF took two months to reach a 1,500 tonnes/day/m^3 tapping ratio compared to the third BF reaching nearly 2,000 tonnes in the same period.

Technological capability is also demonstrated by the extent of capacity 'stretching', that is, producing output that exceeds designed capacity [Dahlman and Westphal 1982]. Mastering technology, improving operating procedures, and reducing costs allowed both Brazil and Korea to exhibit various degrees of capacity stretching [Enos and Park 1988:190-207]. Among the three integrated plants in Brazil, USIMINAS was the most successful in stretching capacity and attaining the best productivity rates. In 1977 its output per employee per year of 261 tonnes exceeded US productivity of 255 [Dahlman 1978:6]. Similarly, in the early 1980s, Pohang's fourth phase expansion entailed capacity 'stretching' by 0.6 mt beyond the designed capacity of 3 mt. In the final phase of Kwangyang expansion, POSCO was able to add an additional 1.0 mt POSCO's overall 'incremental' output stood at over 2 mt (plant visit, Pohang, August 1995). This output did not require major expenses of capital equipment. Instead small steps such as decreasing tap to tap time from four minutes to one minute in steel-making shops, reducing ladle thickness to increase the size of the charge, and increasing the number of working days were behind this incremental change.

Technological capability is also enhanced by backward integration whereby local firms become important suppliers to the industry [Taniura 1986]. In the early stages of late industrialisation increasing local content is difficult. All three governments in the 1960s and 1970s established capital goods producing firms in the public and private sector. In India the Heavy Engineering Corporation (HEC), an East Bloc-aided project, was set up with the sole objective of supplying steel equipment. However, with continued imports of most steel-making equipment, HEC's technological capability was limited. With poor sales, HEC's worsening financial situation was exacerbated by its already weak technological foundation, undermining the very objective for which the government had set up the corporation.

For financial reasons, perfectly capable domestic firms are also unable to compete with foreign suppliers (personal interview, Acominas, Belo Horizonte, December 1987). In the mid-1980s when Acominas, Brazil's newest greenfield was constructed, the Brazilian state-owned equipment producer, USIMEC, was helplessly sidelined for want of long-term financing. Brazil has the technical skills for capital goods production but like India its learning process has been stunted because of external financing of plant and equipment. Brazil's local content ratio for engineering is very high for the production of steel-making equipment but very weak in the finishing equipment area. Of the 35 areas under five categories of finishing, Brazil has engineering capability in only six [Guerra et al 1989:57; de Oliveira 1989].

Korea, on the other hand, was able to increase its local content rapidly. For its Pohang Works, Stage I entailed over 1,19,000 foreign engineer hours, which by Stage III was reduced to 491 and by Stage IV, to zero. Value of local content was 12.5 per cent in Stage I, rising to 35 per cent in Stage IV [Kang 1994: 182]. Virtually all areas of planning, construction, and engineering could now be done by Koreans [Amsden 1989:309]. For Kwangyang, local participation was high. Fifteen firms representing 50 per cent of plant and equipment were involved [Pohang Iron and Steel Company 1987:2]. To ensure local technological capability for the future, POSCO insisted that foreign firms affiliate with domestic ones.

At the plant level, POSCO took several steps to ensure technological learning and high capacity utilisation. Enos and Park (1988:183-207) documented several cases of improvements in imported equipment design and operating procedures in POSCO's plants. Several innovations on the shop-floor were introduced. Two schemes introduced in POSCO's plants that contributed to learning were 'zero defects' and 'improvement proposal'. The former ensured strict quality control while the latter sought employee suggestions to enhance operating efficiency. Both schemes resulted in significant cost savings and productivity increases, ultimately allowing the assimilation of imported technology [see also Amsden 1990:26-27]. In-house training and overseas education in both technical and non-technical areas was provided for a vast number of POSCO's employees [Kang 1994:181]. During the 1970s and up to the mid-1980s, POSCO sent about 1,900 employees overseas for training [Paine Webber 1987: 1-3], with emphasis on general rather than specific training [Amsden 1989:210-11].[36]

In the 1990s, the Indian steel industry, confronted with the prospects of increased foreign competition, introduced a major suggestions scheme [Venkata Ratnam et al 1995:271-80]. By creating a multi-skilled workforce, the Indian steel industry has been trying to restructure on the lines of the Korean one [Venkata Ratnam 1995]. In 1992-93, the number of suggestions increased 20 times, resulting in savings of Rs 1,300 million. The Indian steel industry has extended its training programmes to cover more employees. During 1988-89 to 1992-93, the number of trainees more than doubled, while the number sent abroad almost tripled, from 282 to 757 [Sengupta 1995:78].

However, India's technological problems remain. While POSCO has been able to rely on its customers to improve products, by an extensive feedback system (plant visits, Pohang Coated Steel Company and Pohang Steel Industry Company, Pohang, August 1995), the Indian state-owned firm is unable to crack the domestic market in the face of rising competition. For example, Union Steel, using POSCO's hot rolled coil produces galvanised sheets, which are then used by Samsung Electronic Company for refrigerators. By using the product and providing feedback, POSCO has been able to make better hot rolled coils. In the

Indian case, the successful Maruti-Suzuki automobile joint venture between the government and Suzuki Motors of Japan does not source steel for auto panels from Indian plants. Instead all pressed steel has been supplied by Japan (personal interview, Maruti Udyog, Gurgaon and New Delhi, July 1987, July 1991). The fact that state-owned domestic steel industry is unable to produce the quality steel required by a state-owned auto firm, reflects not only an institutional weakness but highlights the state of technology in existing plants.[37]

The emphasis on technological capability is further revealed by POSCO's investments in R and D. In 1977, 1.13 billion won was spent on R and D, representing 7.3 per cent of POSCO's profits [Enos and Park 1988:210]. In 1983 the corresponding figures were 9.78 billion won and 12.5 per cent or roughly $ 12 million. Though far short of Japanese norm of around 2.5 per cent of total sales, POSCO in the 1990s has doubled its spending from 1 to 2 per cent of sales. This norm far exceeds India's share of under 0.5 per cent [Sengupta 1995:80].[38] For Korea, the immediate impact of R and D has been declining royalty payments. In the case of Pohang, royalty payments for construction and operating technology declined by 6.5 per cent, 17.2 per cent, and 100 per cent in the second, third, and fourth stages of construction [Enos and Park 1988:189]. These reductions are remarkable considering that each phase involved increasing size and complexity of hardware.

To add more muscle to its technological capability, POSCO established the Pohang Institute of Science and Technology (POSTECH), patterned loosely after the Massachusetts Institute of Technology and the California Institute of Technology. It includes all engineering and instrumentation fields relevant to iron and steel making (plant visit, Pohang October 1987; POSTECH Prospectus 1991-92, POSTECH visit, Pohang August 1995). In 1987 the Research Institute of Industrial Science and Technology (RIST) was established to develop new technologies. POSTECH and RIST train technical graduates and act as a source for innovation for Korean industry as a whole. POSTECH can be seen as providing a collective good as its training of high skilled labour benefits other related industries.[39] In 1994 and 1995 POSCO also founded two overseas research centres – POSCO Tokyo Research Laboratories and POSCO Research Centre Europe in Dusseldorf, Germany. They have been established for conducting research in core technologies as well as for sourcing technical information.

The cycle of technological capability is complete when the technology importer ultimately becomes a technology exporter. In this regard South Korea is still weak in design capability [Chudnovsky et al 1983; Chudnovsky 1986; Griffin 1991]. However, as a result of its emphasis on technological learning and its success in mastering the engineering processes, POSCO has made some forays into technology supplies. Training of Taiwanese personnel from China Steel, installing a computerised system in Indonesia, and setting up a joint-venture with US Steel in California are examples of reverse flow of technology from POSCO [D'Costa 1993]. Foreign technology manufacturers are also engaged in the production of steel hardware using Korean skilled workers and local equipment suppliers. Several Korean firms are subcontracted to design steel equipment, such as continuous casters, on behalf of foreign firms.

VI
Conclusion

In examining state-led industrialisation, we find that in Brazil and India there have been institutional impediments to technological dynamism. While both countries have been successful in establishing and expanding steel-making capacity, thus contributing to the general shift in global production capacity, they have not been able to match Korea's investment momentum. Technologically their industries have not been as robust as Korea's. Although early entry to the steel industry may have contributed to the retarded development of the industry, the problems with more recent steel projects in both Brazil and India indicate otherwise. Timing of investments was important for Korea only to the extent that the Korean state had such an opportunity. But exploiting windows of opportunity in its external environment, such as the competitive technology market, was clearly a product of strategic intervention. The autonomy of the state, which was also extended to POSCO, definitely played a role in capturing the benefits of changing technologies. All three countries had some variant of industrial policy but only Korea could use it to build a technologically superior industry. Brazil and India did not have the institutional capacity to invest in modern technology. An overtly bureaucratic approach to industrial governance and populist policies, such as employment creation limited the development of the Brazilian and Indian state-owned steel industries.

State-ownership guaranteed capacity build-up in all three countries but ensured rapid industrial change only in Korea because of its ability to maintain an investment momentum and thereby continuously take advantage of new innovations. The effective utilisation of imported technologies contributed to local technological capability. However, the state, in attempting to foster capitalist development, could not act like a capitalist. Prices had to be kept low to develop downstream activities. Capitalist regulation required state initiative to develop an industry that would provide a key industrial input at controlled prices. The problem with this approach for capitalist development has been the inability of state-owned firms to generate internal resources and secure modern technologies on a continuing basis. India fared the worst because of the heaviness of the state sector. Low administered prices effectively subsidised a bloating public sector, serving private capital less than the downstream industries under government tutelage. Heavy losses of the state-owned public sector reduced internal savings and thus reduced investments in the industry. Technological obsolescence in India has been rampant and only recently has the government announced investments in the sector. The uneven adoption of innovations created a technological gap even among the three industrialising countries.

The implications of the uneven diffusion of technology are many. Four points are worth noting. First, different technological trajectories arise principally because of strategic choice and institutional capability. The US, Japan, and Korea can be seen as dictating the direction of industrial change – the US and more recently Japan toward reducing capacity and reorganising the rest in various ways, Korea and previously Japan by adding technologically-superior steel-making capacity at a rapid rate. Both Brazil and India attempted to transform the industry with limited success. Second, strategic choice and institutional capability are interdependent. Without a coherent institutional arrangement, such as state autonomy the Indian industry could not formulate a technology strategy let alone keep abreast of recent innovations. Third, past strategies and institutional impediments could induce new institutional arrangements, such as a greater state role in the US when falling behind technologically or an increased role of the private sector in Brazil and India as they too find keeping up with innovations challenging. Finally, both innovative behaviour and institutional capability are necessary to organise capitalist

production. One without the other is likely to diffuse technology unevenly, leading to changing competitiveness and varying rates of industrial transformation.

Notes

1 The entrepreneur Jamshed Tata, the founder of Tata Iron and Steel Company (TISCO) failed to raise capital in London at the turn of the century but could do so later in India itself [Etienne et al 1992:49].

2 The sectoral distribution of uncoated flat products, items produced by the state-owned enterprises, shows that 21.4 per cent of 1986 output was absorbed by the transportation sector [Instituto Brasileiro Siderurgica 1987: 2/4]. Close to 20 per cent of total output of this product is directly related to vehicle production [Instituto Brasileiro Siderurgica 1987: 2/6]. In 1995 the Brazilian auto industry absorbed 14 per cent of total domestic sales, representing 23 per cent of flat products [Instituto Brasileiro Siderurgica 1996: 2/4-2/5]. Though privatised in the 1990s, the suppliers of these products are the erstwhile state-owned firms.

3 The creation of Auto Latina in the 1980s by Volkswagen, Ford, and GM testifies to this influence. In 1987 the Brazilian government imposed price ceilings on automobiles, which VW and others blatantly defied. The government threatened to sue the offending parties but later withdrew the charges.

4 Typically in a monopoly situation price gouging is routine and the dependence of steel users on steel producers exceptionally high. This dependence was echoed by one major customer of POSCO (personal interview, Union Steel, Pusan, October 1987). However, it appears it had less to do with high prices and more to do with supply rationing during boom periods

5 For example, in Korea, the construction industry (itself an indicator of infrastructural development) comprised over 50 per cent of domestic demand while automobiles, machinery and the appliance industries have increasingly absorbed remaining steel output. With 1980 as the base, the index of steel consuming sectors in June 1987 were as follows: total manufacturing 454.5, metal products 275.6, machinery 531.7, electrical machinery 602.1, and transportation equipment 374.3 [Korea Iron and Steel Association 1987:55, 57].

6 Percival Farquar, a Brazilian entrepreneur, attempted to set up a large-scale, coke-based steel mill prior to World War I. However, regional and international politics, and the reluctance of foreign finance to 'disturb established markets' thwarted such a venture [Dahlman 1978:35].

7 In addition, US Steel feared nationalisation of productive investments in Brazil as it had recently lost its nickel operation in Finland because of Russian invasion.

8 Korea also faced a similar hurdle at a later date. In the Indian case, the World Bank did agree to provide funds for the private sector plant expansion on the condition that the Indian government underwrite these loans [Krishna Moorthy 1984:86]. In the mid-1950s and early 1960s the World Bank extended a loan of $ 127.5 million to the private integrated companies [Liedholm 1972:20].

9 The Soviet Union declined to offer BOFs for the Bhilai plant as the technology in the Soviet Union was still unproven, a response which paradoxically bore significant affinity to US industry's technology strategy.

10 One is reminded of the difficulties the Japanese faced with German know-how for the turn-of-the-century Yawata Works: cost overruns were five-fold and the design faulty [Morris-Suzuki 1994:80].

11 When the state of Minas Gerais learned of federal state involvement in the COSIPA plant located in Sao Paulo state, it too demanded one, leading to the creation of USIMINAS. The rivalry between the two states is legendary.

12 The Korean company, unlike USIMINAS, rejected the initial Japanese offer of small blast furnaces. However, given Japan's growing industrial might, Korea was not perceived to be an economic threat. As a result the Japanese also treated the Pohang project as a public relations opportunity.

13 Dasturco, an Indian consulting firm, and US Steel, at the request of US Agency for International Development, prepared the feasibility reports for the Bokaro plant. There were differences in the engineering details and break-even points in the two reports. The Soviet Union rejected Dasturco's project report and prepared a new Detailed Project Report. The Soviet cost estimates were nearly twice as high as Dasturco's. The Indian government accepted the report without further scrutiny and the Soviet Union, as a token gesture, reduced the estimated 'excess' cost by 5 per cent. However, this time the Soviet Union offered BOFs, which were smaller than the industry standard, but shied away from continuous casters for the plant.

14 This plant technically does not fall under SAIL management, the holding company for state-owned plants. As execution of a steel project requires large doses of investment capital, according to a SAIL staff, it is preferable to have the project directly under the control of the ministry of steel. Multiple centres for project execution is another sign of institutional incoherence.

15 Import content based on FOB prices has been estimated to vary from 22.9 per cent for the first stage steel melting shop (BOFs and CCs) to 69.9 per cent for the blast furnace [D'Mello 1986: 183].

16 In the course of an interview, a Nippon Steel staff lamented that as of October 1987 there were no major orders for equipment (personal interview with Nippon Steel, Tokyo, October 1987).

17 Some authors, such as Trebat (1983: 96-98) rated SIDERBRAS as highly autonomous. This is doubtful given the disastrous financial position of the company by the end of the 1980s.

18 Construction cost can be roughly disaggregated into site preparation costs, cost of equipment and associated internal infrastructure, external infrastructural development expenditures, manpower training, and interest payments during the period of construction for borrowed capital. Infrastructure development can be divided into three levels: plant offices, laboratories, maintenance and machine shops, warehouses, etc; housing, energy supply (not production), water system, road/railways, etc; and energy production, upstream activities, harbors, etc. [Astier 1985:5-9]. The final expenditure on a steel plant can escalate significantly if there are delays in decision-making, financing and equipment, as well as currency fluctuations.

19 Of the total investment of won 1,649.4 billion for Kwangyang's 2.7 mt capacity, $ 479 million was obtained as foreign credits [Pohang Iron and Steel Company 1987:3-4]. About $ 200 million was 'saved' because of fierce bidding among equipment suppliers [Paine Webber 1985:1-6] and roughly $ 38 million was to be paid as compensation to Kwangyang village [Paine Webber 1985: 2-6]. POSCO proudly declared that its investment cost of $ 637/tonne was less than 43 per cent of the standard $ 1,500/tonne cost in the world economy [Pohang Iron and Steel Company 1987:6]. But infrastructural expenditures on roads and harbors for Kwangyang incurred by several governmental agencies have not been included in POSCO's figures.

20 It is doubtful that the volume of exports of iron ore from the region is equal to the imports of coking coal for the plant. Thus the location of the plant justified on the basis of transportation costs is questionable.

21 The new plate mill in the Bhilai plant was installed at a time when the demand for the product was quite weak.

22 With the recent depreciation of the Korean won, POSCO's asset value is likely to be considerably lower. However, technologically POSCO is solid and hence its market value may be understated.

23 SAIL is over 95 per cent unionised under 220 unions and officer associations nationwide [Venkata Ratnam et al 1995: 260].

24 During expansion of capacity when workers are engaged in construction work for several years they are likely to demand permanent employment. The wage between regular and contract workers is significantly different with the contract workers entitled to a minimum wage with no benefits. But it is public knowledge that a portion of the minimum wage is pocketed by unscrupulous contractors.

25 In the past the ministry of labour firmly controlled all prominent unions of Brazil. All activities of unions were subordinated to the 'national' interest through the Consolidated Labor Laws (CLT) of 1943. In the event of a perceived threat to national interest the ministry of labour had jurisdiction to take over the administration of the unions by dismissing elected officers and replacing them by state appointees. Workers annually contributed a day's worth of wages to the ministry of labour, which was redistributed to unions on the basis of membership. Since total workers exceeded the number of union members in a specific industrial branch and as the funds were used for the benefit of union members only there was no incentive to recruit more members [Keck 1984:27]. Under no circumstances could these monies be used as a strike fund.

26 During 1955-60, the average number of work stoppages numbered 79, during the 1963-71 period the average dropped to 15 [Deyo 1987: 186]. The 1986-89 the average was nearly

1,900 as workers became increasingly aware of their rights and their solid contribution to the Korean economy [Im 1992:17].

7 From 1977 to 1986, the average number of hours worked per week in Korea was consistently over 52 and increased nearly 4 per cent during this period [International Labour Organisation 1987]. Women workers have worked even harder in the manufacturing sector. In the iron and steel industry, South Korean workers on the average have worked nearly 40 per cent more than their Japanese counterparts. See also Chakravarty (1987) for a discussion of the relationship between number of hours worked and capital accumulation.

Poor countries are particularly vulnerable to such institutional weaknesses. For example, Bangladesh in 1967 received Japanese assistance to set up a steel mill on a turnkey basis. Three 60 tonnes OHFs were supplied with a capacity of 1,50,000 tonnes. Later, another OHF was added and the 'designed' capacity raised to 2,50,000 tonnes. The plant never attained more than 1,35,000 tonnes. It is ludicrous to imagine how a single 60-tonnes OHF could produce 1,00,000 tonnes when three of them were designed to produce 1,50,000 tonnes [Mujtahid 1997:2]. This is clearly an example of recycling obsolete technology by the Japanese, imposing a form of structural dependence, and the institutional and technological incompetence of the local authorities

For the initial loan of $ 700 million, the repayment period was six years and interest at Libor (London Interbank Offer Rate) plus 1.25-1.375 spread [CST 1985:14] Although loans from domestic sources carried repayment periods of 16-132 months at 5.5-10.5 per cent there was little capital equipment bought from domestic sources The high cost of the plant along with domestic price controls added to the financial burden, compelling the Kawasaki Steel Group and the Finsider Group to reduce their voting stock to about 5.25 per cent [*Metal Bulletin*, January 18, 1988:27].

Interestingly, CST initially had a lease-back agreement on its coal yard and coke batteries, which ultimately had to be bought with cash with the help of Japanese banks. It may be recalled that the Japanese-aided USIMINAS also experienced cost overruns. In 1982 USIMINAS unsuccessfully tried to sell bonds worth $ 43 million to the Japanese. The Japanese did not perceive the rate of return to be adequate.

It is not that Indian planners and engineers were not aware of the technological possibilities. In fact Dastur and Company, the Indian steel consultants, had recommended 200-300 ton BOFs and requested continuous casters. Instead the Bokaro plant obtained 100 ton BOFs and no CC [Lall 1987:86].

It may be mentioned that site selection has been partly influenced by a major agitation in 1966 in Vishakapatnam, demanding that a steel plant be located there. Another integrated plant to have been built in Paradeep on the eastern coast involved several negotiations with suppliers, particularly British and West German, with various terms and conditions that were frequently revised. This was at a time when the advanced capitalist countries were undergoing a severe recession. No technical study was conducted and ultimately the site proved to be unsuitable.

33 Of the six integrated plants in the country, only Bhilai of SAIL and TISCO, the privately owned plant, have been profitable. Only since 1985-86 has the Bokaro plant earned a large enough profit to wipe out its accumulated losses. The two plants with the worst record have been Durgapur and IISCO in the state of West Bengal. The performance of these two plants has been so poor that the accumulated losses now exceed the value of capital assets employed. Production could continue only with subsidies. It was politically infeasible to write off these plants.

34 Local content in plant construction increased from 34 per cent in 1961 for the first three 1.0 mt plants to 64 per cent in 1978 and 90 per cent in 1988 for Bokaro's first and second stages respectively [Kojima 1991:6]. TISCO's local content achievements were similar to those of Bokaro.

35 POSCO obtained the normal rate of output from its first blast furnace in 107 days, six months earlier than what the Japanese had anticipated from their experience [Kang 1994:184-85] Designed capacity was easily exceeded after the fourth month. Similarly, the time taken to attain normal capacity from start-up became shorter – 80 days for the second blast furnace, 70 for the third, and 29 for the fourth For Kwangyang's first blast furnace it was only 23 days

36 Typically, new employees attend high schools to cover technical and steel related subjects. Technicians and other skilled workers who operate equipment are generally recruited with engineering qualifications and are given a combination of several years of plant-specific experience and training by foreign suppliers. Other more skill-demanding activities such as incremental improvements in technology, purchasing of foreign equipment, and designing process and products require additional years of experience [Enos 1991:81].

37 Since annual Indian vehicle production is still low, the production of high quality auto sheets may not be feasible due to economies of scale requirements However, this reasoning does not take into account the possibility of enlarging markets by exporting

38 TISCO, with a third of SAIL's production exceeded SAIL's R and D spending of Rs 5 22 billion by Rs 1.7 billion.

39 Enos and Park (1988, 210-11) show that many employees who quit POSCO subsequently work for Korean firms that are also suppliers to POSCO. In this sense one can speak of diffusion of skills, with POSCO a leading centre for human capital development

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Competing through Capabilities

Strategies for Global Competitiveness of Indian Textile Industry

Pankaj Chandra

The global textile trading regime is going to change drastically from the year 2005 with the phase-out of MFA. Its implication for competition will be significant. Countries that have already put competition policies in place and firms that have been improving their capabilities are the ones that are going to benefit the most. This paper discusses the nature of competition that Indian textile firms are going to face domestically and abroad in a few years from now. Some of the characteristics of competitive firms that will emerge in the ensuing period are indicated. The paper presents a summary of comparison of Indian primary textile firms with those of China and Canada (based on a primary plant level survey in the three countries). In addition, some processes that are helping the Chinese textile industry grow rapidly are discussed. It is argued that competitiveness of Indian firms would be contingent on developing long-term distinctive capabilities. Three key strategies, namely, Commitment, Co-ordination and Co-operation, for developing distinctive capabilities are presented and illustrations of initiatives at the firm level, industry level and the government level that would form part of the implementation package for each strategy are provided.

I
Introduction

DOES the phase-out of MFA on January 1, 2005 not mean that the Indian textile industry will be able to increase its global market share? Does the cost advantage that Indian firms have not imply a continuing comparative advantage? Do Indian firms have an advantage while supplying the home market because of better understanding of and proximity to the market? Are there distinctive competencies that firms need to have in order to remain competitive in the future? Is technology investment a sufficient condition for sustaining growth in the sector? These are some of the many issues that need to be addressed in assessing the competitiveness of the Indian primary textile industry and in designing strategies for meeting the challenges in the post-MFA period. What is quite clear is that, since the nature of competition will change dramatically, firms will have to evolve newer strategies that are based on contingent strengths and long-term perspectives. In this paper we argue that only those firms that develop unique capabilities will qualify to compete in the global textile markets.

The global market share by value of the Indian primary textiles hovers around 2.8 per cent (as of 1996) as compared to 12.5 per cent of China. Countries like Korea (with a market share of 5.6 per cent) and Taiwan (5 per cent) are ahead of India while Turkey (2.75 per cent) has caught up and others like Thailand (2.3 per cent) and Indonesia (2.0 per cent) are catching up rather quickly. On the one hand, technology which has become a commodity has changed drastically in this century alone with spinning speeds having increased 25 times and weaving speeds having increased 20 times [Hartmann 1997]. On the other trade blocks around the world have created their own 'captive low cost production zones': Turkey, Hungary, Poland and Czech Republic in EU; Mexico, Honduras and Caribbean in NAFTA; and Vietnam, Laos, and Cambodia in the ASEAN. Factor advantage is shifting away from traditional low cost countries. Firms in these countries are gradually moving up the product complexity ladder and are finding new sources of innovation, chiefly new applications and enhanced processes. The spinning sector in India has performed extremely well in the last four years – it is expected that the world market share would touch 30 per cent by the end of 1997. Most of this impressive performance has come through large-scale investments in new ring spinning machines – in 1996, of the total of such new machines purchased around the world, 52.6 per cent was procured by India [Strolz 1997]. It is interesting to note that the recent devaluation of the baht in Thailand and the rupiah in Indonesia have led to drastic lowering of yarn prices, and spinners in India are struggling to recover their costs. With inventories sitting in warehouses and the interest-clock ticking on capital investments (most often made in foreign currency), it would be a while before our spinning industry starts to recover. This begs a question: what are some distinctive capabilities that these firms have developed other than technology (that is already a commodity) which will ensure that firms are able to withstand the increasing uncertainties of global markets? And more important, how do firms develop such competencies? Are there certain industrial practices that help firms manage such uncertainties with relative ease ?

In this paper we argue that firms in the Indian primary textile industry will have to develop some distinctive capabilities to compete in the future once the Agreement on Textiles and Clothing (ATC) expires. In the next section, we present the emerging competitive scenario and highlight the nature of competition that Indian firms are going to face. In section III we present a summary of the findings of a multination benchmarking study that establishes the operational status of Indian textile industry. In section IV, we present some salient features of practices from the Chinese textile industry and the impact that they have had on industry performance. In section V, we develop a framework for 'capability based competitiveness' and discuss key strategies towards building distinctive capabilities. We also point towards the role of textile policy in assisting such efforts. We present our conclusions in the last section.

II
Competitive Scenario

When MFA expires on December 31, 2004, most of the product categories in which north America and Europe compete would have already seen free trade for at least a year while those which are crucial for Indian exports would then get off-quota. One implication of this back-loading agreement would be that Indian firms may start to see increased domestic competition from foreign firms in about two years time from now. They will face imports from

other countries as well as entry of MNCs in existing domestic product segments as well, in addition to preparing for export markets that would open up in 2005. These new firms will also bring in new products to the domestic markets. The competitive environment is poised to change in several other ways as well, e g,

– new products will replace some of the existing mix thereby affecting capacities of domestic firms;

– increase in variety with a considerable reduction in volume per variety; a study of the textile firms in the US by Abernathy et al (1995) reveals that the average number of SKUs per business unit increased from 6,411 in 1988 to 13,261 in 1992 and that in 1992 firms on the average introduced 7,257 new SKUs while they dropped from the product line, on the average, 5,788 SKUs;

– several countries will have upgraded their technology stock with latest versions by the year 2005; for example, Turkey has been the largest investor in open-end rotor in 1996;

– strong productivity increases by firms in north America and Europe; for example, Unify Inc, a spinning firm in the US has tripled its sales since 1988 to US$1.7bn and most of addition in capacity has come through process improvements and not capital investments (McCurry, 1997);

– stronger environment requirements both from the citizens as well as the legislature; the process industry is already penalised for not treating its effluents responsibly; pressures will also come from international consumer groups to adopt processes that do not generate polluting effluents;

Firms around the world have developed different kinds of capabilities that have allowed them to perform well in the face of severe competition. In the long run, a competition between firms is a 'contest of competencies'. Firms whose competencies are more robust and more distinctive tend to gain more than others. Examples of such competencies are given below. What is worth noting is that it would be firms with these type of capabilities who would compete with Indian firms both in the domestic and international markets in few years from now. Some examples of how firms around the world have been changing are:

– In Prato, Italy, large mills have disintegrated to form a cluster of smaller firms that specialise in a single process. They compete on end products and collaborate on technology development and infrastructure maintenance. The output of this cluster and the variety produced has increased manifold since this 'graceful disintegration'.

– German manufacturers have implemented 'lights out' weaving for 24 hours where weaving machines have been loaded with weft packages just before shutdown on Sundays and computers adjust weaving speeds to optimise yarn speeds.

– Japanese and American plants are using TQM practices like Design of Experiments for optimising weaving practices.

– In Indonesia, one operator works 48 looms and shares the profits stemming from them.

– Burlingtons in the US have reduced manufacturing and delivery lead times 200 per cent in the last five years and in-plant defect rates are now measured in parts per million.

– Firms in southern USA are researching the use of genetic engineering, cellular biology and tissue culture to grow coloured cotton in order to eliminate the dyeing process.

– Firms are using 'looming robots' to setup looms, load and unload them and to transport the cloth to the stock room.

References on the above and details are documented in Chandra (1998). Successful firms are changing their technology stock and the organisational structure that uses this technology simultaneously. The former includes updating machinery, plant infrastructure, transport and handling equipment, storage facilities, process control, ventilation and environment control systems, effluent generation and treatment systems, etc. The latter includes reporting and communication structures, manufacturing management practices, data collection and planning mechanisms, training and evaluation, grievance handling process, process and product innovation, subcontracting networks etc. It is now well established that firms that pursue technological change along with organisational changes get maximum advantage of investment in technology. In other words, technology (or codified knowledge) that is not developed in-house is accessible to all competitors and it does not provide a distinctive advantage to a firm. However, managerial practices (or tacit knowledge) that are uniquely designed to take advantage of technology can be copied less easily and hence provides competitive advantage. Toyota's development and implementation of the JIT is one such example. In textile industry, these managerial practices form the important link between technology adoption and competitiveness. The key issue is the ability of firms to increase their productivity between two epochs of technology acquisition.

Manufacturing management has played a critical role in linking technology with competitiveness. It requires (a) development of an effective work environment, (b) emphasis on capability building process (of both people and technology) and (c) a mechanism for evaluating the performance of the manufacturing regime. The reader is referred to Chandra et al (1998) for a literature review and discussion on each of these factors. Gold (1997) mentions that recent industrial experience from US suggests that extensive advertising/marketing, take-overs of competitors by firms have provided only short-term profitability and competitiveness. His study

Table 1: Benchmarking Indian Primary Textile Industry

	Canada	China	India
Environment: External to Firm			
Infrastructure	100	52	20
Regulatory Regime	100	36	20
Breadth of Home Market	100	116	164
Quality of Home Market	100	36	52
Environment Internal to Firm			
Quality of Work Environment	100	52	36*
Absenteeism	100	68	36
Wages	100	200	170
R and D Investments	100	68	20
Capabilities: People			
Quality of Workforce			
Managerial	100	52	116
Technical	100	132	116
Operator	100	68	52
Training and Development	100	84	52
Capabilities: Technology			
Extent of Investment in Technology	100	84	68
Type of Technology Available	100	84	68
Indigenous Development	100	148	116
Capabilities: Managerial Practices	100	52	84

* We have "islands of excellence"

shows that the two most consistent sources of improved competitiveness have been "increasing the performance capabilities of the products, and offering more favourable product prices for comparable products". Improving the basic technology on which the product design and its performance is based, improving the quality and mix of materials (raw material or intermediate products) and advances in effectiveness and quality of the manufacturing operations are seen by Gold as the three key sources for achieving the above. They also shape the long-term capabilities of any firm.

In the next section we report some findings from a benchmarking study to assess the capabilities of the Indian primary textile industry based on the above discussion. These findings will highlight how well, on the average, our firms are prepared to meet the competition from firms that have characteristics described above.

III
Benchmarking Indian Primary Textile Industry

In this section we describe the findings of a plant-level, cross-country study to benchmark the capabilities of firms on a variety of operational parameters. This was a collaborative study between the Indian Institute of Management, Ahmedabad, McGill University, Montreal and Renmin University, Beijing. Primary data was collected from 173 plants in Canada, China and India through a standardised questionnaire and detailed interviews were conducted with managers at several of these plants. Indian firms have been compared with Chinese (representing a high growth country in terms of global market share) and Canadian (a proxy for high productivity oriented north American firms) firms. The sample comprised of composite mills as well as firms that performed one or more of the spinning, weaving and dyeing, and finishing operations. Most firms were medium to large in size (in terms of employment and sales). A large majority of firms were profitable and care was taken that each country sample included a representative proportion of firms that were performing well in global markets. Information from various trade journals were used to identify such firms. Similarly, the sample also included a few firms who focused on domestic markets only but were successful in terms of sales turnover.

A sample of these findings is reported in Table 1. The numbers in the table represent an index giving a relative position of firms on a given factor as compared to the Canadian sector (whose index is taken as 100 for all factors). These comparative indices are based on raw data which is provided in Chandra et al (1998). The index value for a country on each parameter is determined by scaling the raw data on that parameter *vis-a-vis* the Canadian raw data and then representing it on a base of 100. For example, the index on the quality of work environment is based on actual data on wages, incentives for plant workers (e g, profit sharing, housing and transport, pay for knowledge, etc), worker motivation programme (e g, job rotation, flexible work schedules, employee suggestion programme, alcohol/drug abuse programme etc), type and frequency of grievances filed (e g, related to discipline and discharge, safety and health, overtime assignment, etc), nature and extent of training programmes, etc. Chandra et al have developed aggregate raw scores for each such factor. These scores were used to create our index. These findings represent 'average values' while outliers existed in each of the three country samples.

Table 1 is a representative sample of these comparisons. It may be noted that many of the observations that are made in the following paragraphs are based on data on specific factors that have been aggregated to give the indices that are shown in Table 1. Both Canadian and Chinese policy-makers have recognised

TABLE 2: SOME KEY CONCERNS OF INDIAN TEXTILE INDUSTRY

Operational
1 A large proportion of exports from the powerloom sector is in grey due to lack of good quality processing houses outside the mill sector:
2 Weak work culture – an worker in Indonesia can operate 48 looms at a time while in India it would be around 8;
3 Worker skills are very poor: dependence on agriculture worker: dependence on untrained women in the garments sector,
4 Poor ginning facilities;
5 Poor cotton agriculture practices;
6 Transportation, port and customs procedures are very lengthy, unclear, and cumbersome;
7 Long production cycle times and high inventories;

Structural
8 Garment exporters have to depend on the powerlooms (whose quality and reliability levels are low and reas mill sector is not able to supply in small volumes to small exporters;
9 Relationship of cotton growers, etc, with mills or spinners, etc, is short -term oriented;
10 Weak indigenous textile machinery sector especially those related to looms and processing,
11 Multiple agencies represent different entities of the supplier chain;

Strategic
12 Powerloom sector does not have resources to invest in new technology for quality improvement;
13 Interest rates are very high – firms find it risky to invest in new technology in addition to high pre-shipment and post-shipment export credit rates;
14 Indian exports are 80 per cent cotton based while world trade is shifting towards the use of synthetic fibre (75 per cent of world trade),
15 Entrepreneurs are very inward looking;
16 Water charges in Bombay are highest in the world – firms are unable to re-locate with the changing cost environment;
17 Entrepreneurs do not see themselves as part of a national industry – behaviour is short term and opportunistic,
18 Indian producers are competing with other Indian counterparts in the export markets; choice of product mix is based on orders and not so much on long-term capacities – are we competing in the same segment with similar products ?
19 Industry has not been able to forecast properly the demand for various product-market segments;
20. European and North. American producers are shifting production bases to Morocco, Tunisia, Portugal, Turkey, Mexico, Honduras, Czech Republic, Hungary and other low wage CIS countries;

Regulatory
21 Regulatory requirements· Hank yarn requirements, Essential Commodities Act, Excise, etc, have a detrimental effect on the competitiveness of firms;
22 Evasion of Excise, false branding, etc, by small-scale producers;
23 Synthetic fibre is very expensive in India due to a variety of duty and other restrictions:
24 Large units are not allowed in the garment sector until they export 75 per cent of their production: the country, however, will not be able to restrict imports of garments from large units;
25 Import of raw materials is restricted, at best;
26 Power availability is very irregular;
27 Cascading taxes and local levies are close to 10 per cent;
28 Duties, reservations and other structures imposed by the government are forcing people to cheat or behave in a manner which is un-economical in the long run; e g, fabric that is reserved for the handloom is actually coming from the powerlooms;
29 Non-tariff barriers to exports exist;
30 Devaluation of rupee will hurt in the long run until the domestic textile machinery industry is strengthened.

the importance of this sector to their respective economy and have developed targeted programmes (like the Programme to Enhance Productivity (PEP) in Canada) to improve productivity of their firms. It is apparent from the table that Indian firms have typically produced a large variety of counts which, on one hand reflects the flexibility at the plant level while on the other hand reflects a lack of strategic response at the firm level, i e, focusing on few products and developing capabilities to improve quality of both the product and the processes. Many firms in India continue to serve, profitably, the low end of the market. This has had two salient effects in conjunction with domestic protection: first, these firms have not graduated to producing and serving higher value added market segments: and second, they have not made efforts to introduce better products (at the same cost) to replace the low quality offerings. While there exist islands of excellence in firms like Arvind or Coats or Bombay Dyeing, etc, organisational practices within firms in the primary textile sector are often 'Dickensian'. It is not unusual to find firms where large-scale dyeing is still done manually (by hand) or where the humidity in loom rooms is unbearable or where the worker (as well as managers, at times) motivation is very low. Such plants are to be seen in China as well.

While the wage levels in India are low, those in China are almost half of those in India. When one factor lies in the quality of the workforce, the impact of wages on competitiveness decreases as the ability of the workforce to bring about sustained enhancement in productivity is limited. This is one of the reasons why Indian firms do not 'indulge' in any indigenous R and D (the average value is 0.2 per cent of sales) – more on this later. Interestingly, there now exists a market for innovation in China – periodically, innovators get-together and share/sell their innovation to firms. Many PSUs in China have a floating payroll system where the wage bill of a firm is pegged to a negotiated output level. This has been inducing certain amount of change in the internal environment of firms as many benefits have been linked with productivity. Most firms in Canada and some in China and India have recognised that in order to improve productivity of plants, workers must be treated fairly and that work environment must be healthy and safe.

McCurry (1997) points out that the textile worker, in times to come, cannot afford to remain un-educated as new technology demands new skills. He points that successful firms in the US are holding extensive education programmes for their workers and managers. For example, establishing process capability of machines has become necessary to control defects. This requires operators to plot statistical charts, interpret them and then modify process parameters accordingly. Many computer assisted machines generate and capture such performance data automatically. The ability of firms to use such a technolog (and consequently produce a value addin product mix) may, to a very large extent depend on the skill level of its workforce The relative lower quality of the technica workforce and the operators, as shown i Table 1, is directly linked with low investment in training by Indian firms. Similarly the technological capabilities of India firms are lower, on the average, as com

TABLE 3(A): DESIGN OF INITIATIVES TO DEVELOP DISTINCTIVE CAPABILITIES – COMMITMENT

Firm Level Initiatives
- Focus on Speed and Quality to Reduce Costs
- Product Mix Choices to be based on 'Real' Competencies in Operations
- Focus on Quality of Life of the Employee
- Extensive Education of Workforce
- Strategic Investment in Technology

Industry Level Initiatives
- Support Long-Term Textile Related Education Programmes
- Design Industry Policies
- Establish Textile Quality Council

Government Level Initiatives
- Establish Escrow Fund for Education in Textiles
- Remove Structural Impediments like Reservation
- Come up with a new Textile Policy focusing on year 2015

TABLE 3(B): DESIGN OF INITIATIVES TO DEVELOP DISTINCTIVE CAPABILITIES – CO-ORDINATION

Firm Level Initiatives
- Focus on Supply Chain Management
- Emphasise Excellence in Production – Housekeeping, Statistical Process Control, Shop Floo Synchronisation, Productive Maintenance and Value Engineering
- Map and Reduce Variability in the Operations (e g, reduce expediting)
- Move towards Pull Mode of Production
- Invest in New Technology that will keep you ahead for at least two years
- Increase Use of Computers

Industry Level Initiatives
- Spread Good Manufacturing Practices
- Identify Weak Links like Processing Houses and help upgrade technology
- Invest in an Advanced Technology Centre that holds regular displays of new textile technology from all over the world
- Co-ordinate Flow of Goods and Information between different Cotton farms, ginneries, spinners, weavers, processors and garment producers via EDI technology, etc.
- Develop an Independent Certification Agency

Government Level Initiative
- Remove Restrictions on Availability of Domestic and Imported Raw Materials
- Need to re-organise the Textile Ministry to include all elements of the Supply Chain – remov Inter-Sectoral Policy Distortions
- Need to Strengthen Domestic Textile Machinery Industry
- Provide Tax Benefits to small and medium firms that are investing, in say, quality improvement rather than organising seminars for them

TABLE 3(C): DESIGN OF INITIATIVES TO DEVELOP DISTINCTIVE CAPABILITIES – CO-OPERATION

Firm Level Initiatives
- Strategic Alliances between Indian Firms on Technology Development, Pre-Competitive R and D, Infrastructure, Funds Availability, etc
- Strategic Partnership with Other Entities in the Supply Chain
- Co-operation between small/medium and large firms: Formation of Central-Satellite Firm (CSF) Network – reduction of risk for small and medium firms and increase in flexibility for the large firms
- Investment in R and D up to at least 2 per cent of Sales

Industry Level Initiatives
- Help Firms develop a CSF network – selling the idea to firms that they will survive only i they co-operate
- Facilitate shifting of competition from between firms to between various CSF Networks - initiate the partnering process
- Transform into a single Integrated Textile Industry Association

Government Level Initiatives
- Float Partnership Program for Pre-Competitive Product Development
- Tax Benefits for Patents Obtained and Income from Patents made Tax Free

pared to those in Canada or China. Most investments in India, in recent years, has been in spinning units. However, 65 per cent of spinning machinery is still more than 10 years old as compared to 90 per cent in Italy which has the most modern spinning sector [Strolz 1997]. The picture in weaving and dyeing and finishing processes is much worse. China invested in 68,000 shuttle-less looms between 1987 and 1996 as compared to 8,000 in India or 30,000 in Indonesia or 81,000 in Korea. It is estimated that half of the 3.6 million shuttle looms around the world are in India [Strolz 1997]. There is a noticeable absence of adequate capacity in good quality dyeing and finishing processes. These two processes limit the entry of Indian textiles into higher value products despite a modern spinning sector.

Some other challenges that the Indian primary textile firms will have to overcome can be classified as (a) operational, (b) structural, and (c) strategic. *Operational challenges* include reducing manufacturing and delivery lead times, improving product and process quality and improving plant and equipment maintenance. Chandra et al (1998) show that production cycle times in Indian plants are almost twice those in Hong Kong or Korea. Specifically, production run sizes are longer in Indian plants (across the three processes) as opposed to those in Canada thereby resulting in higher waiting times for a lot and, consequently, resulting in higher working process inventory. The average manufacturing and delivery lead times from procurement of yarn to shipment (ie, receipt by customer) for our apparel exports is between 144 to 182 days [Raman 1995]. This is often longer than an entire fashion season. Most firms do not follow any scientific approach to shop floor planning and control, thereby, leading to poor co-ordination between processes. Batches wait for days before they get processed at each machine due to non-synchronised order releases. Planning tools like MRP or JIT are almost non-existent in most Indian textile plants. There is lot of scope for improvement on these factors by introducing appropriate shop floor planning systems. For example, a good bale management system which allows proper combinations to be formed from various quality bales would go long ways to reduce waiting times and defect rates. (Interestingly, such a system can be set up at a central facility for common use). High defect rates (about 3-5 per cent in India, 1-3 per cent in China and 0.01-0.1 per cent in Canada) are another source of delay, in addition to increased costs. In fact, a recent survey of 300 spinning mills in 27 countries revealed that, of the 14 most contaminated varieties of cotton, 8 were from India [Strolz 1997]. Most quality problems stem from weak quality measurement and control systems. Moreover, spinning a poor quality cotton or weaving a poor quality yarn is wasting productive machine capacity. This calls for identifying and removing defects at source. Improving quality practices at the ginneries should be one of the most crucial items on the agenda of the textile industry. It can be easily shown that improvements in quality at this stage not only benefits the spinners but also the ginners via higher premiums on their product. The same can be said of poor housekeeping and weak plant and equipment maintenance systems in Indian plants. Healthy work environment (both for people and machines) is necessary for higher productivity. Best practices (for example, in world class plants one cannot enter a loom room without ear plugs) only add value in the long run. They help in attracting better customers, employees and suppliers.

Structural challenges include looking at the operations of the entire sector as a single entity. There is poor co-ordination between different entities that comprise the supply chain, like the cotton producers, ginners, spinners, weavers, dyers and finishers, knitters and apparel producers. There is still no recognition of the fact that they are interdependent in their growth. No longer are firms competing in global markets by themselves. When Benetton competes with Stefenal, it brings the strength of its own supply chain (ie, cotton farms with which it has special relationship, its 1000 or so small suppliers, its transport network, its franchises, etc) to the market. Benetton has linked its suppliers' low cost weaving skills with its own high quality dyeing resources to deliver orders at short lead times and at low cost. Ad hoc supply chains based on short-term advantages and poor co-ordination between various entities are resulting in delayed information and product flow between various entities. This is leading to high inventory level in Indian supply channels. This is corroborated by our survey which revealed that 36 per cent of Indian textile firms kept more than 75 days of RM inventory as opposed to an average of 11 per cent and 13 per cent of firms in China and Canada, respectively. Similarly, poor managerial practices and technology in the processing sector is limiting the ability of many yarn and cloth producers to climb up the quality and value added ladder.

Another challenge before the sector can be termed as *strategic* in nature. There are two aspects of this problem that are worth noting – first, there appears to be too much conflict between the small, medium and the large players in the industry. Composite mills or large plants lack flexibility to produce variety or small orders at low costs. Powerlooms/small plants have the flexibility due to low overheads but have outdated technologies and work practices to produce high quality products. In a market where garments have to be delivered quickly at low cost, a modern powerloom sector will be an asset but a reservation price of Rs 3 crore cannot buy even 20 Sulzer loom (and such investments may be required every 5-6 years to remain competitive). The second issue is related to the first – decisions on product mix choice and product markets are very local and short-term oriented which result in short-term gain at the cost of long-term effectiveness. As a tautology, technology choice decisions have been linked to this latter issue. Strategically, a plant cannot be both low cost producer as well as variety provider. Plants make choices on whether to focus on few products at high volumes or to produce a large variety at lower volumes per variety. This becomes necessary as for each type, design of operations, layouts, practices, processes, factors to focus on, etc, are different. Plants in India that have followed such an approach have done extremely well (e g, Arvind, Ashima, Modern, etc) but many others still believe in opportunistic market seeking which introduces inefficiency in operations.

In summary, there appears to be an overdependence on low wages and raw material costs as source of competitive advantage. The textile policy regime, protected environment, and certain historical factors have all contributed in making this sector very static and unresponsive to changes that have been happening around the world. Table 2 summarises some of these concerns though we have decided to focus on firm level strategies and responses (note: several of these concerns were highlighted during discussions at Texcon 97).

IV
What the Chinese Are Doing Right

Chinese textile industry is an interesting case study of how policy intervention, firm level changes, and strategic technology choices helped it to become an important player in the world market. It is important to point out that most of these changes have taken place over years and that the industry has been successively climbing up the value added ladder. While it is difficult to create a single visual of

these efforts, one can identify several factors that have contributed positively to the growth of the Chinese textile sector. As Wang (1998) points out that the 'four modernisation' programme in China after the Cultural Revolution recognised textiles as a key sector which could generate large amounts of foreign exchange which was necessary for investment in other sectors of the economy. As a result, the number of textile enterprises grew from 4,551 in 1978 to 11,242 in 1991. Together their current global market share is close to 26 per cent including both primary textiles and apparels.

The Chinese industry has followed a two-pronged strategy in building market share, i e, developing large volume/low cost units and low volume/high value adding units. This dual strategy has drawn Chinese expatriates from Hong Kong, Taiwan, Europe and the US who have played the role of 'market makers' as well as producers with factories in China. It must, however, be mentioned that the quality of the domestic market is far inferior to that of export markets and is thereby open to competition, just like India, after year 2004. In fact, the extent of competition in the domestic market is not as intense as one finds in India. Chinese policy has encouraged export-oriented units in a variety of ways that range from the availability of credit for buying new equipment to canalising raw materials and finished goods through centralised channels. This has helped in reducing uncertainty in availability of good quality material for exports. In addition, it has set up a single apex body for each of the sub-sectors in order to facilitate export formalities and to better co-ordinate across the sub-sectors. With implementation of the "responsibility system", pressures on most state enterprises has increased to perform, especially, since the wage bill has been linked to output levels. This has driven many firms to export as that was the only way to fund purchase of new technology through which they could increase their output and consequently their wages bills. Another pillar in this modernisation process has been technological upgradation. Since 1985, cotton and silk firms have imported equipment worth US$ 1bn each year [Wang 1998]. However, by the year 2000 only 20-25 per cent of the total technology stock would have been updated. (In 1992, 1.08 million cotton spindles and 18,000 looms were made obsolete and eliminated.) Another example of such investments has been the state-run Beijing No 3 Cotton Mill which has invested close to US$1bn in new equipment in the last ten years. Another feature of this growth has been a spate of joint ventures that each of these firms have entered with firms outside China – most of these firms produce to specifications provided by foreign partners.

There has been another facet of development in the Chinese textile industry which has provided a significant long-term benefit to individual firms. China does not have a long or strong history of managerial initiatives. However, its secondary and technical education programmes are very stringent. Chinese firms have recognised this lacunae and have started to invest in in-company training of its workforce in modern technology and managerial skills. On the average, Chinese textile firms give 70 hours of training each year to an experienced worker as opposed to 32 hours in Canada and 10 hours in India [Chandra et al 1998]. This survey also found that about 16 per cent of Indian firms did not provide any training to a new employee as compared to 1.8 per cent in China. To put these efforts in perspective, the training that a long-term auto worker gets as a new hire at Saturn's plant in the US is between 350 and 700 hours [Rubinstein et al 1993]. Chinese work-units on shop floor are increasingly making productivity-related decisions. Interestingly, the focus of all shop floor programmes or technology investments has been improvement of quality which is quite similar to that in India. Joint ventures have brought in new managerial practices which are helping firms upgrade their capabilities. The Chinese government has been anxious to enter new application areas in textiles and has set up a commercial R and D organisation, the Chinese Textile Science and Technology Development Corporation, to help develop new capabilities especially in industrial textiles. Finally, Hong Kong has been playing a key role in China's growth. It provides high quality design and apparel manufacturing and marketing services, efficient financial and shipping facilities that have considerably reduced delivery times, and plants that are capable of quick ramp up to meets customers' short delivery requirements. This network of low cost operations in mainland China, fashion design, operational skills for quick turn-around and efficient port handling in Hong Kong, and Chinese market makers in Europe and the US have allowed the Chinese textile industry to make significant strides.

V
Capability Based Competitiveness

The challenges for the Indian textile industry range from defending domestic market shares, starting about two years from now, to entering new markets with existing products to entering domestic and new markets with new products. These require very different types of responses from firms as compared to their current approaches that have been highlighted earlier. A majority of Indian textile products are in the low cost, low value added segment which will never generate enough economic surplus for continuous investment in technology, practices and research. In addition, this segment is most susceptible to competition from other low cost countries, like Bangladesh, Morocco, Honduras, Vietnam, etc, who are slowly climbing up the technology ladder. Firms whose source of low cost is any of the following are going to be most vulnerable to competition:

- protection in various forms,
- low wage workers especially with no or little training,
- old machines which require heavy breakdown maintenance,
- externalising of environmental costs to society,
- clever accounting practices, and
- product mix that has not changed in a decade.

New markets and applications that can generate higher profit margins will require very different strategic responses from firms. Similarly, new strategies will be required to meet the competition from firms around the world in a post-MFA era. What is needed is to change focus from 'cost based competition' to 'capability based competition'. It must be noted that capability based competition does not preclude low cost, high quality, low delivery time and high value added operations.

A firm's ability to engage in 'capability based competition' depends on three key strategies: commitment, co-ordination and co-operation. Commitment is a decision to be in the business in the 'long run'. Co-ordination is the willingness to see industry as a single 'supply chain'. And, Co-operation is learning to jointly develop 'operational and technological' capabilities. By focusing on these three key strategies, firms can build distinctive capabilities that will allow them to create a niche for their products. There are several issues worth mentioning here – how does a firm develop such a focus or what is the role of the industry at large or the government policies in developing such a focus? Or what is preventing firms from developing such capabilities? While these issues need to be dealt with comprehensively, we will illustrate how a firm or the industry or the government policies can improve the levels of commitment, co-ordination and co-operation. It must be noted that such initiatives must be able to overcome some of the current weaknesses and should be able to draw from successful models around the world.

Tables 3(a), (b) and (c) give illustrations of the nature of key initiatives that form the portfolio of successful strategies with respect to developing commitment, co-ordination and co-operation, respectively. *Commitment* can be developed by investing in long-term resources like education of the workforce whether in-company or in-institution. Both, government and industry have to invest in this resource. The government can develop a scheme whereby a fraction of a firm's tax can be put in an escrow fund which can be withdrawn exactly in amounts spent on worker training. It is not only important for the firm but also for the state to ensure that the industry has well educated workers. Even when workers are empowered, they need to have abilities to make productivity improvements and hence the need for extensive training. Similarly, any investment in improving the quality of life of the workers and their families, outside the realm of salary or bonuses, will provide a long-term benefit to growth of the firm in terms of good personnel practices, worker motivation and productivity improvement. Levine (1995) has reported numerous examples where practices like pay for knowledge, employee ownership, sharing of gains, employment security with reciprocal contracts by both workers and management have lead to considerable increases in productivity and profitability of firms. Investment in technology has to be strategic in nature – the timing, nature and extent of investment should provide strategic advantage to a firm at least for a period of two-three years in the future. This issue is closely related to choice of product markets to compete in – product mix should be based on 'market pull' rather than 'technology push'.

Most firms focus on optimising individual elements that comprise a supply chain (ie, raw material suppliers, intermediate goods suppliers, end-product producer, distributors and/or retailers) which leads to lack of synchronisation. This results in either high inventories in the chain or long delays. Lack of information on production plans, inventory levels, market offtake, etc, and variability due to uncertainty in availability of resources, breakdowns, defects, expediting exacerbate this problem. *Co-ordination* strategy seeks to bring information at the place of usage and attempts to reduce variability which helps in synchronising different levels of decisions across the chain. At the firm level, shop floor improvement programmes, evaluation of the value of co-ordination, and implementation of pull production systems like JIT help in improving coordination. Industry associations can play a crucial role by co-ordinating demands and flows across the ginners, spinners, weavers etc. Internet can be used successfully to create such a database that can be updated continuously. Similarly, an Advanced Technology Centre needs to be set up which holds regular displays of the state-of-the-art textile technology from world over, co-ordinates the flows of technology to industry and networks with machinery producers and research centres to provide solutions to various technical problems. To facilitate the co-ordination process, it then becomes necessary to develop an independent certification agency which can rate the production units and the quality of products coming out of the plants. This is essential given the failure of capital markets to reveal to investors the true (and not the perceived) performance of textile firms. This could help firms to raise funds for long-term investments in technology, etc. It could form a basis for identifying partners in developing networks. For example, spinning units could enter into long-term relationship with certain good (ie, certified) ginneries; in turn, progressive ginneries would improve their processes in order to get certified which may bring premium to their products. Similarly, government policies can assist this strategy by ensuring that the idea of global supply chains become viable in each segment. This would not only ensure that firms improve their processes but will also ensure that good quality raw materials are available in the right markets at the right time. To remove inter-sectoral policy distortions, the government will have to re-organise the textile ministry to include all elements of the textile supply chain. This may be an effective way of not only co-ordinating policies but also in identifying weaknesses across the entire supply chain. (Or else, how will we ever stop receiving complaint of the kind recently made by knitting weavers in far east about the inferior quality yarn of 30s and 40s counts that came from India. The yarn producers blamed the cotton farmers for providing poor quality and contaminated cotton Shankar-6, H-4 and LRA varieties of cotton while the cotton farmers blamed the Gujarat government for providing tainted seeds of S-6, S-8 and S-10 varieties [Business Standard 1997].)

Another strategy which will help firms to develop distinctive competencies is that of *co-operation*. Whether it is a firm in the Prato region or Benetton in Italy or textile PSUs in China, they have one thing in common – ability to co-operate on technology development and operational effectiveness. Firms in other industrial sectors, for example, most Japanese automotive companies, Sematech for semiconductor R and D in the US or the Airbus consortium of EU, etc, have successfully practised advanced versions of co-operation to mutual advantage of participating firms. Maruti Udyog is one such successful example in our country. Co-operation can take a variety of forms – firms can form strategic alliances for technology development or for pre-competitive R and D or for common infrastructure development. For example, it would be wise for most spinning or weaving units to come together and help ginners improve their technologies and practices as they affect the quality of downstream operations. Similarly, large industrial houses could participate in joint research to develop new varieties of synthetic material with properties of cotton or for developing coloured cotton. When it would come to commercialisation, these same firms could compete with different end-products or using different processes.

Strategic partnerships can also exist at another level in the form of a 'Central-Satellite Firms (or CSF) Network'. Such a network would naturally have a large firm at the centre to which a variety of small firms (representing different elements of the chain) are linked. Such a network will have powerlooms, spinners, ginners, finishers, textile machinery

producers, transporters, etc. linked together to deliver products to customers. Of course, such alliances are based on unique capabilities that each firm will bring to the CSF network. It allows for firms to develop specific capabilities (by devoting resources to focused activities), reduces uncertainties in operations and provides flexibility to the network. It is clear that, very soon, competition would not be between firms but between network of firms. And those networks that are able to innovate quickly and more frequently in order to provide better quality and variety at low cost are the ones that will increase their market share. For example, this will enable a large mill to accept both large and small volume orders and deliver it using different entities in its own network. This would also leave large firms to play the role of a 'master innovator' on a continuous basis. Firms that are willing to accept shared vulnerability and vision of growth as a reality will gain considerably. Moreover, such a concept is based on recognition of the fact that innovation takes place through 'technology chains'. For example, to create a new type of a weave or to weave an existing cloth using a new process, the weaving firm will have to depend on the innovative ability of the textile machinery manufacturer who in turn may depend on the machine tool producers or an electronics control company to deliver such an effective machinery. One thing is clear from the experience in other sectors, the government cannot develop and must not control such a network. It can only provide partnership programmes for R and D (including declaring it as an infrastructure activity) or provide patenting support or help in the development of competition policy, etc. in order to encourage firms to come together. Individual firms along with the textile industry associations will have to assiduously develop such a system. This would require that various industry associations representing different entities in the textile supply chain (including the textile machinery manufacturers) will have formed an alliance based on *shared vulnerability and vision*. Then only will the industry be able to shift competition from between firms to between networks which is a hallmark of capability based competition. One would be failing in duty if we do not recognise that the list of top 10 corporate houses in India, in terms of R and D investment as per cent of sales, includes a textile machinery manufacturer, ie, Lakshmi Machine Works (the only one from the textile, clothing and related sector in this list) at sixth position for the year 1995-96

VI
Conclusions

It is apparent, from the benchmark studies, that Indian textile industry has 'islands of excellence' but the capability and performance of the average firm is not very high when compared to those in several other countries. The technology stock and work practices in our textile industry are outdated. There are distinct weaknesses in the structure of the industry, in processes like ginning and dyeing (and to some extent, in weaving because of its inability to weave high value fabric), lack of product or process innovation, poor shop floor practices, poor use of modern management practices, inadequate plant and equipment maintenance, etc. Given that the trading regime is going to change drastically in the next few years, the Indian textile industry as well as the textile policy will have to be re-organised and reworked. What complicates this effort further is that many countries are either ahead of us in this respect or have forged alliances with several trade blocs which follow a variety of restrictive practices. While this paper does not propose either of the two countries that we have studied, ie, Canada and China, as models for Indian firms in totality, there are several lessons that we can learn from them to design strategic responses that will provide comparative advantage to our primary textile sector. This, obviously, must include leveraging on our inherent strengths and changing the old mindset on competition.

Re-organisation of the textile sector has to be done at two levels – the firm level and at the industry level. This re-organisation as well as technology upgradation will require highly skilled workforce which the industry, currently, does not have as a whole. Strategic thinking to improve the competitiveness of the sector will require new industry policies, more investment in workforce education and technology on a continuous basis, improvement of manufacturing practices in plants, better linkages between various entities that form the textile supply chain and continuous investment in process and product R and D. This will help firms to develop capabilities and processes that would be difficult to imitate by a competitor.

The domestic textile sector has been quite competitive and has witnessed many upheavals. It has certain inherent strengths which have to be built upon and new contemporary strengths need to be added. This will make the industry more vibrant and competition more dynamic. With the removal of policy distortions and firm level non-competitive practices, the industry will be on its way to become one of the most modern in the world.

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A Regulatory Body for the Liberalised Coal Sector

Suchitra Sengupta

Deregulation of the coal sector, by itself, may not lead to accelerated investment, expansion in production and competitive market conditions resulting in cost and price efficiency. Certain rigidities within the coal sector as also in the macro-economic environment imply that the gains of economic liberalisation can only be consolidated through the creation of a regulatory agency. This experience is not unique to India. Even mature market-oriented economies have come to accept the utility of regulatory agencies in simulating competitive conditions under less than perfect free market conditions.

This paper seeks to sketch the outlines of an ideal regulatory mechanism based on the experiences of other economies which have gone through the process of liberalisation/privatisation in the recent past and, against that background, to set out a proposal for a regulatory body for the Indian coal sector, keeping the specific conditions and requirements of producers and consumers in view.

THE Indian coal sector has recently been deregulated. The present paper attempts an analysis of the post-liberalisation scenario in the coal sector and proposes the setting up of a regulatory body in view of the anticipated market developments. The paper consists of the following sections:

(i) a review of the current reserve position of the nationalised coal companies (NCCs) and the projected supply and demand gaps during the Ninth Plan;

(ii) salient features of the recent policy declarations aimed at attracting investments to produce additional coal for meeting burgeoning demand from the user industries;

(iii) possible limits to liberalisation imposed by infrastructural inadequacies and institutional rigidities, and hence examination of the need for a regulatory body;

(iv) outline of an ideal regulatory mechanism based upon the experiences of other economies which have gone through the process of liberalisation/privatisation in the recent past; and

(v) proposal for a regulatory body for the coal sector, keeping the specific conditions and requirements of producers and consumers in view.

I
Indian Coal Sector: A Review

Prior to 1973, the Indian coal industry was privately owned and operated. The rising coal demand from the iron and steel sector and the consequent need for large scale investments prompted the government to nationalise the coking coal mines under private ownership by the Collieries Act of 1973. Subsequently, the non-coking coal mines were also nationalised in 1974. State-ownership of the coalfields was further justified on the grounds of conserving an exhaustible natural resource and of halting widespread environmental degradation perpretrated by the private mine-owners.

Accordingly, Coal India (CIL) was formed in 1973 to serve as the public sectorholding company for the nationalised coal companies. Since then, more than Rs 11,000 crore have been invested in this sector. Estimated capital stock at 1989-90 prices stands at Rs 16,521 crore. Production in the post-nationalisation years grew at the CAGR of 6.1 per cent per annum, raising the output of total coal from 78 million tonnes in 1974-75 to 270.13 million tonnes in 1995-96. Government budgetary support to the public sector coal companies was 95 per cent till 1990. However, with the introduction of the new economic policy and the associated structural adjustment programmes, the share has come down dramatically to 10 per cent of the plan outlay in this sector.

Despite a quantum jump in output, the nationalised coal sector's performance in terms of a number of critical indicators of efficiency (i e, movements in productivity, capital output ratio, mining techniques, quality variations in mined coal, etc) fell far short of international standards. This experiment with state-ownership has, however, created a huge monolithic parastatal commanding a lion's share of the mineable coal reserves of the country.

The present assessment of coal reserves in India is about 200 billion tonnes. Out of this 69 million tonnes are proven resources (Table 1). The proven coal reserves under the ownership of the CIL is about 53.76 billion tonnes (Table 2) which forms about 77 per cent of the proven reserves of coal available nationally. Nearly 50 per cent of their proven reserves (i e, 26.24 billion tonnes) are assessed to be recoverable. Out of the total recoverable reserves of 26.24 billion tonnes, projectised reserves are 8.24 billion tonnes, while 18 billion tonnes are yet to be projectised. In the case of coking coal, concentration of ownership of the resources (i e, reserves and washing facilities) in the CIL is even higher.

The end-user wise consumption of coal has undergone a significant change over the last two decades. In 1970-71, the 'power' and 'iron and steel' industries had equal shares of about 18 per cent, in the total consumption of coal. In 1994-95, the situation has altered radically with the power sector accounting for nearly 70 per cent of the total consumption while the share of the iron and steel industry declined to around 13 per cent. Over the time-period, consumption of coal in the power sector grew at the rate of 20 per cent per annum (CAGR) as opposed to 6.7 per cent in the iron and steel industry. Decadal changes in the pattern of coal consumption by various user sectors are shown in Table 3.

The projections of sectoral demand for coal, estimated in the report of the Committee on Integrated Coal Policy have been shown in Table 4 . Demand for coal emanating from the power sector has been estimated to more than double from 215 million tonnes in 1996-97 to 500 million tonnes in 2001-02. Demand for coking coal from the steel sector is, likewise, projected to go up from 40 million tonnes to 80 million tonnes over the same time-period. Assessed availability from the existing mines of the NCCs and the private mines will leave gaps of 128 and 122 million tonnes, respectively, by 2001-02 and 2006-07. The gaps, in fact, may even be larger if the capacities with the private sector do not become operational by 2006-07.

Given the current and anticipted levels of foreign exchange reserves and the infrastructural facilities at the ports as well as inland, it would appear that only a

fraction of the total gap can be met through imports. The only viable alternative for bridging the gap is to add to the capacities in the domestic coal industry. The currently asessed demand and supply gaps indicate that the existing supply base needs to be augmented by about 20-25 million tonnes annually over the coming decade.

Investments for expanding coal production becomes critically important at this juncture as it is linked with targeted power generation during the next two plan periods. Required power generation during the terminal years of the Ninth and the Tenth plans has been projected as 1,44,168 MW and 2,07,842 MW, respectively. Out of the total planned power generation, more than 50 per cent is assumed to be coal-based (i e, 57 per cent in 2001-02 and 54 per cent in 2006-07). Apart from the shorter lead time (gestation lag) for thermal power plants as compared to hydel power plants, generation based on domestic coal is preferred as the cost of generation is the lowest among other alternative fuel sources. According to expert estimates (Coal Report of the BICP, 1994), an investment of about Rs 40,000 crore at current prices will be required in this sector over the next 15 years.

After two decades of state control, the coal policy of the government has come a full circle by conceding entry, once again, to private capital. The paradigm shift in the development strategy of the government, the stringent fiscal conditions imposed by the SAP, lack of investible surpluses within the state sector and the opportune integration with the fund-rich global capital market – all led the state to liberalise its coal policy. Ironically, the justifications offered, i e, mobilisation of investible resources for expansion of capacity are the same for nationalisation and the subsequent liberalisation.

TABLE 1: TOTAL COAL RESERVES OF INDIA AS ON JANUARY 1, 1995

(In billion tonnes)

Depth	Proved	Indicate	Inferred	Total
0-300m	49.31	55.16	20.59	125.06
300-600	17.74	25.63	17.19	60.56
600-120	1.54	8.97	3.89	14.4
Total	68.59	89.76	41.67	200.02

Source: Report of the Committee on Integrated Coal Policy, Planning Commission, 1996.

II
Reforms in Coal Sector, 1992-96

Phased liberalisation of the coal sector began with the launch of the programme of general economic reforms in 1992. The initial package of reforms permitted private sector investments only in captive coal mines of selected end-using industries, e g, steel, power and cement.

With this partial dereservation of capacity, coal mining blocks with 150 million tonnes of assessed capacity were allotted to 17 power and steel projects. Production from these projects, however, are yet to materialise. Moreover, growth in the production of domestic coal decelerated during the post-reform years. Total domestic coal production increased from 238.26 million tonnes in 1992-93 to 270.13 million tonnes in 1995-96, registering a growth rate of a little over 4 per cent per annum. This is lower than the annual compound growth rate of 6 per cent achieved during the regime of nationalised coal industry (i e, 1975-76 to 1991-92). The slowing down in the growth rate was caused by an absolute decline in the output of coking coal from 45.36 million tonnes in 1992-93 to 40.10 million tonnes in 1995-96. A positive growth rate of 4.32 per cent during these four post-reform years could be maintained as the decline was neutralised by a 6 per cent annual growth rate achieved by non-coking coal output (Table 5). Obviously, the partial deregulation measures did not result in the expected incremental supply from the private sector. Import of coal, especially, coking coal has increased manifold in the post-liberalisation years.

TABLE 2 NET PROVED AND RECOVERABLE RESERVES OF COAL OF COAL INDIA

(In billion tonnes)

Depth	Type	Proved	Recoverable: Projectised	Recoverable: Non-projectised	Recoverable: Total
0-300M	Coking	5.07	0.66	2.11	2.77
	Non-coking	34.66	7.44	13.21	20.65
300-600M	Coking	0.68	0	0.14	0.14
	Non-coking	2.11	0	0.35	0.35
Jharia	Coking	6.3	0.11	1.39	1.5
0-600	Non-coking	4.94	0.03	0.8	0.83
Sub totals	Coking	12.05	0.77	3.64	4.41
	Non-coking	41.71	7.47	14.36	21.83
Total Coal		53.76	8.24	18.00	26.24

Source: Report of the Committee on Integrated Coal Policy, Planning Commission, 1996.

As partial deregulation did not lead to the expected expansion in capacity or production, the government of India constituted a Committe on Integrated Coal Policy under the aegis of the Planning Commission in 1995. The report of the committee was placed before the parliament after its submission in May 1996.

The committee framed its recommendations on the central premise that a conducive policy environment has to be created for attracting private investments to supplement investments in the state sector. The recommendations, therefore, seek to promote generation of internal resources by the existing producers and also to remove the deterrents to the entry of private capital into this sector. Apart from deregulation of the distribution and prices, the proposals relate to liberalisation of provisions guiding acquisition, exploration and operation of mines, participation of overseas capital and technological upgradation. The major recommendations of the committee are broadly discussed in the following paragraphs:

(a) Coal mining has to be , once again, opened to private investors in a total reversal of the policy stance adopted while nationalising the coal sector during 1972 and 1973. Necessary amendments will be made in the Coal Mines (Nationalisation) Act of 1973 to allow any Indian company to mine coal and lignite not only for captive consumption but also for sale.

(b) Approval of foreign equity participation up to 50 per cent should be automatic. Projects with higher foreign equity will be subject to clearance by the Foreign Investment Promotion Board and will be registered with the Registrar of Companies.

(c) Foreign investors shall be permitted to set up 100 per cent subsidiaries for mining and exploration ventures.

(d) The new policy shall do away with the concept of linkages for coal supplies.

(e) Competitive bidding for the identified blocks of coal and lignite, based on the criteria of minimum recoverable percentages and minimum transfer price, will have to be allowed. The NCCs will also have to undergo the same procedure, should they want to procure new mining blocks.

(f) Furthermore, the bidder should start production within a given time-frame, failing which suitable penalties shall be imposed.

Close on the heels of the preliminary round of reforms, the coal sector was further liberalised in two successive stages in keeping with the recommendations of the Expert Committee (1996). The second

round of deregulation came in 1996 when controls on the distribution and prices of coking coal and A, B and C grades of non-coking coal were withdrawn (vide a Gazette Notificaton dated March 22,1996). A year later, on February 11, 1997, the government of India announced further changes in its coal policy which, perhaps, represent the penultimate step towards total deregulation of this sector. The salient features of the latest round of deregulation are as follows:

(i) The prices and distribution of D grade of non-coking coal, hard coke and soft cokes were deregulated with immediate effect while provisions were announced for deregulation of the other grades of coking coal (i e, E, F and G) from January 1, 2000.

(ii) The intention was expressed to suitably amended the Coal Mines (Nationalisation) Act of 1973 to allow private investors to engage in mining activities not only for captive use but also for sale.

(iii) Along with the above pronouncements it was also intended to amend the Mines and Minerals (Regulation and Development) Act of 1957 to set up an independent body to allocate blocks on the basis of competitive bidding.

III
Need for a Central Regulatory Authority

It is clear from the above discussions that mobilisation of investible resources for enhancing future output has been the *raison d'etre* for deregulating the Indian coal industry. However, as in all reform programmes, it is also expected that decontrolled prices and removal of barriers to entry will lead to greater cost, price and allocative efficiency by creating competitive market conditions. These concomitant policy objectives seeking to reap the benefits of free play of market forces become especially relevant in the context of low capital and labour productivity of the Indian coal industry. More importantly, inefficient pricing in the coal sector has the potential to quickly push costs in every sector of the economy via its extensive linkges through the 'power' and the 'iron and steel' sectors. Maintaining price-efficiency of this important primary resource becomes the overriding objective for ensuring international competitiveness of the downstream manufacturing industries. A purely competitive market will lead to the maximisation of consumers' surplus as prices are set near the long run marginal cost of production. Efficiency in resource use is also guaranteed because the producers as price-takers can maximise profits only by minimising costs.

Conditions of pure competition may not exist in reality, but similar gains and improvements in efficiency can be extracted from creating a market with multiple producers, each with limited power to influence prices. Costs and prices can be kept under pressure provided there exists some degree of competition among the producers. In a globalised economy, competitive pressures can also be exerted through free-flow of imports with minimal tariff.

Free market conditions may not, however, lead to competition and consequently to maximum/greatest social benefit in the following cases:

(i) in the presence of falling marginal costs over a large range of output, i e, production conditions giving rise to natural monopolies; and

(ii) in the presence of external costs and benefits associated with the production or consumption of the output;

Additionally, implementation of the programmes of privatisation/liberalisation in erstwhile command economies may also hinder the growth of a competitive market in the presence of large state monopolies with a large resource base. In such economies, the existing legal systems, especially the laws governing ownership of means of production, need to be re-oriented for accommodating the principles of equal opportunity to all the prospective economic agents, in both the private and the state sectors. Liberalisation under conditions of insufficient infrastructural facilities (ie, transportation network, handling and storing facilities, etc) may also lead to the growth of local monopolies, especially in the case of bulk commodities such as coal.

We now examine whether the prevailing conditions in the Indian coal industry guarantee a fairly competitive market after deregulation, i e, absence of a very large producer with enough market powers to influence prices, uniform minimum achievable cost of production for every producer for similar end-products, effective elimination of all covert and overt barriers to entry. The observed conditions which may detract from the ideal competitive market conditions are listed below:

(i) Firstly, even though studies by the BICP have found evidence of some amount of scale economies, the extent of decreasing costs does not establish the conditions of a natural monopoly. However, for historical reasons, we do possess state monopolies in this sector commanding over 70 per cent of the proven resource base.

(ii) Secondly, the deliverd cost of coal with the same quality parameters (including both the costs of mining and washing) varies widely from one mining block to another, depending on their geophysical conditions and availability of infrastructure. Therefore, minimum cost for the same end-product will differ from one producer to another – thereby conferring some degree of monopoly power to the producer most favourably placed in terms of quality of owned coal reserves and access to essential infrastructures. To obviate the effects of such extraneous constraints on the final cost of production, utmost care has to be taken in assessing the value of the blocks put up for competitive bidding. The computed values

TABLE 4: DEMAND AND AVAILABILITY PROJECTIONS FOR COAL

(In million tonnes)

Sources of Demand	1996-97	2001-02	2006-07
Power	215	350	500
Steel	41	63	80
Others	77	100	136
Total demand	333	513	716
Availability from existing sources	289	385	594
Gap/excess demand	44	128	122

Source: Report of the Committee on Integrated Coal Policy, Planning Commission, 1996

TABLE 3: SECTORWISE CONSUMPTION OF COAL

(In million tonnes)

Sectors	1970-71	Per Cent Share	1980-81	Per Cent Share	1990-91	Per Cent Share	1994-95	Per Cent Share
(1) Steel and coke ovens	13.5	18.8	22.4	20 4	27 6	13.3	33 4	12.9
(2) Power	13.2	18.4	36 7	33.5	129.2	62 2	181 1	69.8
(a) Utilities	13.2	18.4	36 7	33 5	116 7	56 2	166 6	64.2
(b) Captive					12.5	6 0	14 5	5.6
(3) Cement	3.5	4.9	4 8	4 4	9.7	4 7	11 1	4.3
(4) Fertilisers			2 3	2 1	3.9	1.9	4 3	1.7
(5) Railways	15.6	21 8	11 9	10.8	5.2	2.5	0.6	0.2
(6) Domestic	4.1	5.7	1.3	1 2	1.3	0 6	0.3	0.1
(7) Other Industries	21 8	30 4	30 3	27 6	30 7	14 8	28 8	11.1
Total	71.7	100	109.7	100	207 6	100	259 6	100

Source: Report of the Committee on Integrated Coal Policy, Planning Commission, 1996.

should reflect the advantages/disadvantages of location and mining conditions.

(iii) Thirdly, coal is not a homogeneous commodity. The market for coal can be subdivided into non-competing segments, i e, the product of one category is not a perfect substitute for the other such as coking and non-coking coals, etc. Technological progress may increase substitutability in future. But, under the present conditions, post-deregulation ownership pattern may invest monopoly powers to a very small number of producers/suppliers for a particular product type. For example, BCCL, a subsidiary of the CIL, has in its possession more than half the country's total prime coking coal reserves.

In this connection, it is important to focus attention on some important elaborations (outlined in the Report of the Committee on Integrated Coal Policy) on the suggested policies related to pricing and competitive bidding of new blocks. A critical analysis of these aspects is warranted for a clearer understanding of the market situation that is likely to emerge after the implementation of the new coal policy.

(i) Firstly, it has been suggested that out of the identified coal blocks ready for production/exploration, the NCCs may be allowed to retain those required for meeting their commitments. The recommendation, however does not specify the criteria or the norms for such retention by the NCCs, i e, whether all non-projectised blocks are to be brought under competitive bids. Release of only the marginal and outlying blocks for competitive bidding may fail to attract private sector investments to the required extent.

(ii) While discussing the framing of bid-evaluation criteria, the report states, "Obviously, the attempt would have to be to give preference to parties which are already engaged in coal production in the country [i e, the NCCs] or parties who will be using bulk of the coal for their captive use." Once again, introduction of such biases in the bid-evaluation criteria would defeat the very purpose of attracting private capital and thereby injecting elements of competitiveness in a sector dominated by state monopolies.

The lack of logistical/infrastructural support may also prove to be inimical to competitive price-setting. The envisaged constraints in this area are discussed below:

(i) The scope for keeping domestic prices in check by aligning these to the border prices (i e, world) appears to be restricted by the inadequate port facilities. For example, demand for total coal from the steel sector (of which 75 per cent will be coking coal) is projected to go up from the present level of 40 million tonnes to 63 and 80 million tonnes, respectively for 2001-02 and 2006-07 (Table 4). Total coking coal consumption of this sector during 1996-97 was around 33 million tonnes out of which 10 million tonnes have been imported. Domestic availability of total steel grade coal has been around 26 million tonnes in 1996-97. If domestic production does not increase significantly, imports of the order of 40 to 50 million tonnes per year will have to be contracted over the next 10 years. Even the present import levels of 10.16 million tonnes of coking coal, has put the port and handling facilities under considerable stress (Table 6). The port traffic of non-POL bulk commodities, e g, foodgrains, coal, fertilisers and other such cargo which are not amenable to containerisation is at present 78.58 million tonnes (Table 7) against a total capacity of 72.95 million tonnes. The already overutilised capacities as well as the port handling and storing facilities will have to expanded sufficiently to accommodate such large increases in import requirements. It should be noted that the port facilities are required for coastal transportation of domestic materials as well as imports. Therefore, bottlenecks at the ports will impose an effective ceiling on the actual volume of imports. The Expert Group on infrastructure has projected that total traffic at the ports will grow from 240.19 million tonnes in 1996-97 to 435.01 million tonnes by 2001-02. Out of this incremental requirement of 215.02 million tonnes of port capacity, the non-POL bulk items will account for 75.81 million tonnes. Total investments required to achieve this capacity will be in the region of Rs 1,00,729 million by 2001-02, of which about 68 per cent will be furnished from internal accruals while Rs 32,562 million will have to be mobilised additionally. The magnitude of funds requirement indicates the enormity of the problem.

(ii) Problems of inland transportation may prove to be a major bottleneck in transporting coal from the pitheads to the

Table 5: Trends in the Production of Coal, 1975-1996

(In million tonnes)

Year	Coking Coal			Non-Coking Coal	Total Coal
	Metallurgical	Non-Metallurgical	Total Coking Coal		
1975-76	22.19	7.93	30.12	69.51	99.63
1976-77	23.65	8.18	31.83	69.16	100.99
1977-78	23.23	8.1	31.33	69.65	100.98
1978-79	22.54	8.67	31.21	70.74	101.95
1979-80	24.19	6.68	30.87	73.07	103.94
1980-81	24.59	8.03	32.62	81.29	113.91
1981-82	26.89	9.23	36.12	88.11	124,23
1982-83	30.1	7.47	37.57	92.93	130.5
1983-84	30.11	6.24	36.35	101.87	138.22
1984-85	30.57	6.04	36.61	110.8	147.41
1985-86	29.07	6.57	35.64	118.56	154.2
1986-87	27.91	11.63	39.54	126.23	165.77
1987-88	26.28	14.73	41.01	138.71	179.72
1988-89	25.16	17.56	42.72	151.88	194.6
1989-90	24.5	19.93	44.43	156.46	200.89
1990-91	24.1	21.2	45.3	166.43	211.73
1991-92	26.33	19.95	46.28	183	229.28
1992-93	25.72	19.64	45.36	192.9	238.26
1993-94	25.99	19.07	45.06	200.98	246.04
1994-95	24.54	19.71	44.25	209.55	253.8
1995-96	23.53	16.57	40.1	230.03	270.13
1996-97*	22.64	17.9	40.54	125.12	285.66

Note. * denotes provisional data

Source: Economic Survey, 1995-96, 1996-97 and 1997-98.

Table 6: Details of Coal Imported, 1991-1995

Year	Coking Coal		Non-Coking Coal		Total	
	Million Tonne	Rs Billion	Million Tonne	Rs Billion	Million Tonne	Rs Billion
1991-92	5.27	8.98	0.03		5.3	8.98
1992-93	6.32	12.84	0.17	0.24	6.49	13.08
1993-94	6.94	13.6	0.39	0.54	7.33	14.14
1994-95	10.16	19.54	0.57	0.77	10.73	20.31
1995-96	9.38	21.23	3.13	5.65	12.51	26.88

Source. Directorate General of Commercial Intelligence and Statistics, GOI.

consuming centres. This may prove detrimental in several respects – firstly, absence of extensive transportation linkages may discourage private investments, or it may involve drastic change in the policies for location of coal-intensive power plants at the pitheads; secondly, region-specific demand and supply mismatch may lead to appropriation of 'rent' by traders and other intermediaries. Although, efforts are being made in both directions, but the gap between required and existing transportation facilities remain high (Table 8).

Attracting private capital in this core sector also requires extensive changes in the legal framework. The laws that govern acquisition and exploitation of natural resources are numerous, complicated and involve many agencies. The resulting extension in the time-cycle between conception of a project and its commercialisation increases the cost of capital consuderably. Therefore, simplification of the legal framework and elimination of the many layers of approval at the state and national levels are the two most essential prerequisites for minimising the lead-time and thereby the perceived risks of investment undertaken by the private entrepreneurs. To ensure adequate inflow of private capital, modifications are urgently needed in the following Acts:

(i) Forest Conservation Act, 1980,

(ii) Coal Bearing Areas (Acquisition and Development) Act, 1957,

(iii) Contract Labour (Regulation and Abolition) Act, 1970, and

(iv) Mines and Minerals Regulation and Development Act.

It is therefore clear that the Indian coal sector may not operate under conditions of competitive price setting over the medium-term. The pre-liberalisation structure of the industry with a high degree of concentration of the reserves and assets in the nationalised producers, the infrastructural bottlenecks and the stautory and legal obfuscations are the principal factors which might retard competition in this sector over the short and the medium run. Under the existing constraints, even the bilateral price fixation suggested by the report of the Committee on Integrated Steel Policy may be biased in favour of the established domestic suppliers. The coking coal market has the essential characteristics of a bilateral monopoly – a single big buyer, i e, the integrated steel producers using the BF-BOF route and the single seller, i e, the CIL. But even in this subsector of the total coal market, the balance of price-setting bargaining power will tilt towards the seller as long as competition remains limited by the lack of supplies from imports. Moreover, coal-mining will always give rise to deleterious environmental effects giving rise to subsatntial externalities. Lastly, in a liberalised coal market dominated by a very large state sector, private investments will take place only on the assurance of fair play in terms of the legality of acquisition of mining rights, access to physical and financial and other support facilities at par with other participants.

It is clear that transition from a monopoly situation to a more competitive system requires balancing of the interests of the various participants in the market. After deregulation of a sector, it is possible to have situations marked by the coexistence of public-ownership and public-operation, public-ownership and private-operation and private-ownership and private-operation. Such diverse market relations will have to be supported by an overall regulatory mechanism. The need therefore arises of a regulatory body with the following broad responsibilities:

(i) to create conditions conducive to competitive as opposed to monopolistic/oligopolistic price-setting so that the consumers' interests are protected;

(ii) to ensure standards of performance (in terms of quality of output, best operating practices, etc) of both the producer and consumer of coal such that inefficiency of one party is not subsidised extensively by the other (i e, inefficiency of the producer should not impinge on the surplus of the end-user through higher input costs. Similarly, inefficiencies of the end-user should not be made good by subsidising inputs at the cost of the supplier's earnings);

(iii) to ensure that the external costs of coal mining are internalised adequately in the cost and price structures;

(iv) to create a level playing field for the state sector producers and the private investors which is an essential prerequisite for attracting private capital on a sustained basis, i e, provide for a process of competitive bidding and economic parameters for bidding so that parity is maintained in the treatment meted out to different classes of investors.

(v) To arbitrate and adjudicate in case of disputes between the different players in the market.

IV
Defining a Workable Regulatory Authority

Under the emerging market conditions in the coal sector, it is necessary that the regulatory framework be well-defined in terms of transparency, clarity of obligations and duties and responsibilities for all the agencies involved in the process. The regulatory body must be autonomous, empowered, transparent and accountable.

TABLE 7: TRAFFIC BASED ON TRADE GROWTH

(In million tonnes)

Year	POL	Non-pol			Coastal	Total
		Bulk	Break-bulk	Container		
1996-97	50.39	78.58	23.28	20 94	67 01	240 2
1997-98	56.32	91.21	25 74	26 27	71 63	271 17
1998-99	62 94	105 49	28 24	32.71	76 63	306.01
1999-00	71.98	121 19	30 66	40 29	82 24	346.36
2000-01	82 15	137.13	32.65	48.68	88 56	389 17
2001-02	92 44	154.39	34.47	58.3	95.42	435.02

Source: Report of the Expert Group on Commercialisation of Infrastructure Projects, 1994

TABLE 8: TRANSPORTATION LINKAGES FOR COAL REQUIREMENT BY THE POWER SECTOR DURING NINTH PLAN

(In million tonnes)

States/Sectors	Requirement of coal			Total
	Linkage Established	Lin'.age to be Establishd	Status Unknown	
Haryana	4 42	–	-	4 42
Punjab	2.04	--	-	2.04
Rajasthan	1.21	–	-	1 21
UP	0.49	4 7	4 85	10.04
West (incl Gujarat)	-	2 04	.	2.04
MP	4.08	16 57	–	20.65
Maharashtra	7.62	–	4 85	12.47
AP	9.69	2.42	5 04	17.15
Karnataka	7.27	2.04	0.5	9.81
Tamil Nadu	5.09	7.26	3 02	15.37
Eastern Region (Bihar, WB, Orissa)	20.05	29 97	6.88	59.6
Total	61.96	65	25.14	152.1

Source: Report of the Expert Group on Commercialisation of Infrastructure Projects, 1994.

There must also be a guarantee that the rules, policies and procedures are stable so that the producers are afforded a sufficient planning horizon.

The regulatory agencies should operate at arm's length from the governmental set-up. The distancing of the regulatory body from the direct ambit of the governmental machinery becomes more important in a market situation dominated by a large-sized producer or consumer in the state sector. In such cases, attaching the agency to the governmental ministries/departments will hamper its price-regulatory functions which involve reconciling the often conflicting objectives of providing the output to the final consumer at a fair price, on the one hand and setting prices with a rate of return which will attract new entry.

To maintain operational autonomy, these specialised agencies must be manned by professionals in the field with a professional board representative of all interests and services of the particular sector and professionals in the financial field.

The body should be set up by an appropriate statute. Without statutory powers, the effectiveness of the regulatory agency will be lost. The regulatory authority in each sector must be vested with punitive powers to be effective. In other words, the body should be able to enforce its decisions and hence should have sufficient executive powers. This marks an important departure from the recommendation of the report of the Committee on Integrated Coal Policy, where it is proposed that the regulating authority can arbitrate only on reference and compliance with its decision would be entirely voluntary

As a corollary to its empowerment, the regulator should also be privy to such information as are needed to regulate and monitor the various market players in an unbiased fashion. The regulatory functions would include identification of problems, fact-finding, dissemination of information, formulation of rules, setting of norms and standards and enforcement of the rules within the existing parameters of the legal system. Therefore, efficient conduct of the regulatory activities would need an enormous information base. In other words, the regulator should have an intimate knowledge of all the facets of the activity in question. This once again underscores the need for professional expertise.

As dispute resolution through arbitration is an important function of the regulatory body, it needs to be invested with some judicial powers. The regulatory agency may have a quasi-judicial character. Accordingly, effective mechanisms to settle disputes quickly are to be set up. If the regulatory mechanism does not have judicial powers, then arrangements should be made to set up such mechanisms within the existing legal framework, e g, appellate tribunals for the coal sector.

Ideally, for one economic sector a single regulatory body should be formed which shall subsume the different regulatory and facilitating functions within itself. Stress should be laid on the creation of a multi-functional single entity rather than a number of regulatory bodies each looking after different aspects. The objectives of a regulatory body outlined above are all inter-related and should be dealt with by a single agency. For example, competitive pricing will depend crucially on the even distribution of the means of production which again will depend upon fair bidding of the mining blocks. A multiplicity of regulatory bodies will once again lead to conflicting decisions causing delays and dilations in the investment process, which will defeat the very purpose of liberalisation.

In view of such overlapping jurisdiction of the state and the centre, the regulatory agency for coal should operate at two levels, the central/nodal agency and the state level agencies. This is essential in view of the fact that many of the laws and regulations governing ownership rights of natural resources as also financial impositions (i e, royalty and cess) fall within the ambit of state administration. Ideally, overlap in the jurisprudence of the state and the centre should be reduced to a minimum, but such processes in a pluralistic, federal polity as India, will take time. In the meanwhile, the central or the apex regulatory agency may serve as a co-ordinator/arbitrator to minimise the areas of friction.

Some experts feel that government funding of the regulatory bodies should be avoided to the extent possible. The agency may be funded by annual fees, licence fees, recurring charges or royalty payable by the producers and consumers of coal as a percentage of annual turnover. Care must be taken to specify that the levies are not in the nature of taxes. Moreover, if possible, the charges should be levied as a percentage of services provided. However, some amount of confidence-building on the part of the regulator may be needed before the cess/levy can be instituted. Therefore, to initialise such efforts, funds may be transferred from the government to build a corpus for operating the body.

The regulator operating at arm's length from the ministries/ departments should, however, be accountable to parliament. At the same time, the fact that the regulators will have representatives of the producers and the consumers will perforce make them accountable to the economic agents who are supposed to benefit from their activities.

V
Experience of other Countries: Does a Standard Model Exist?

Over the last two decades, widespread liberalisation of the infrastructure and other core/strategic sectors has taken place across different economies of the world. The compulsions to privatise and liberalise have been diverse. The recurrent reasons, however, have been the following:

(a) mobilisation of private capital for financing massive investment requirements in these sectors under conditions of fiscal stringency;

(b) improving the efficiency levels of these strategic sectors with strong linkages with the rest of the economy and thereby improving the international competitiveness of firms;

(c) unbundling of infrastructural services made possible by technological changes which puts at rest the fear of a privately owned natural monopoly; and

(d) vastly increased possibility of a private firm raising the huge investments typically needed in such sectors as the capital markets get globally integrated.

Irrespective of the circumstances which led to liberalisation/privatisation, every transition from monopoly to competitive markets necessitated some variant of a regulatory institution. The basic objectives of such institutions are to balance the interests of all the economic agents operating in that sector and to create conditions for sustained investment. A regulator's function is to reconcile the interests of the consumer who will benefit by competitive prices with those of the producer who would invest only on the expectation of a high enough return. The exact nature of institutional arrangements will depend upon the political and administrative systems of the concerned economy But whatever the form, the rules of regulation have to be comprehensive, transparent and as non-discriminatory as is possible.

In countries such as the UK and Australia, the regulatory agencies work in close collaboration with the executive. The regulators in the UK are autonomous non-departmental bodies known as the 'Next-step Institutions' which are accountable to

parliament. The US and New Zealand, on the other hand, rely more on transparent legal procedures which are subject to judicial process. According to the Expert Group on Commercialisation of Infrastructure Projects (Rakesh Mohan Committee), ".... the emerging scenario in India suggests that it would now be better to opt for statutory regulatory agencies which operate on transparent legal basis and whose decisions are subject to judicial process".

The following sections contain a brief outline of some of the regulatory mechanisms in operation in different countries of the world.

National Energy Board (NEB), Canada: Established as a statutory, quasi-judicial body under the National Energy Board Act (1959), the NEB regulates the energy sector. The board has the power to issue and review permits, licences and certificates to operate, inquire into accidents resulting from pipelines or an international power line, cancel licences, hear and pass judgments on complaints and reports, initiate inquiries and hold public hearings, etc. The board is duly authorised to resolve inter-party conflicts and make decisions based on records. While setting tariffs, the board ensures that they are just and reasonable and there is no "unjust discrimination". Pricing is usually based on the "cost of service" methodology, taking into account operation and maintenance expenses, return on equity, debt service, income tax and other taxes.

Office of Gas Supply (OFGAS), United Kingdom: The Office of Gas Supply was established under the authority of the Gas Act, 1986. It is responsible for monitoring British Gas PLC's activities as a public gas supplier, including enforcement of a price formula which governs the maximum average price that British Gas is allowed to charge tariff customers. It is also promoting competition in the gas industry because giving customers a choice delivers better value for money than regulation. As competition develops, the role of OFGAS will broaden from regulating British Gas to ensuring that a fully competitive gas market develops in an orderly way. The structure of the organisation is: (1) Director General of Gas Supply, (2) Legal Adviser, (3) Director, Regulation and Business Affairs, (4) Director, Tariffs, (5) Director, Consumer Affairs, (6) Director, Public Affairs, (7) Director, Administration.

Office of Electricity Regulation (OFFER), United Kingdom: The OFFER is a non-ministerial government department established under the Electricity Act 1989. It is responsible for monitoring the activities of all licensed generators, transmitters and suppliers of electricity. The Director General heading offer has to exercise his regulatory powers so as to promote competition in the generation and supply of power; ensure that all reasonable demands for electricity are satisfied; protect consumers' interests on prices, security of supply and quality of services; promote the efficient use of electricity. The OFFER has 12 regional offices to monitor the regulated activities and to deal with consumer enquiries and complaints. The structure of the company is as follows: (1) Director General of Electric Supply, (2) Deputy Director General, (3) Director, Regulation and Business Affairs (licensing, use of system by National Grid and Regional Corporations, generations including renewables, competition in generation, pooling and settlement, collection and calculation of the Fossil Fuel Levy), (4) Director, Regulation and Business Affairs (monitoring and reviewing price controls, ensuring compliance with licence conditions on cross-subsidisation, economic purchasing issues, providing accounting and economic analysis), (5) Director, Supply Competition (competition in supply with deregulation in 1988), (6) Legal Adviser (legal advice on director general's activities, monitoring and enforcing compliance to licences and statutory regulations), (7) Technical Director (monitoring and compliance with technical standards, grid code, distribution code, metering), (8) Chief Examiner (meter examinations, pattern approval of electricity meters, certification of quality assurance system, authorisation of meter manufacturers and repairers according to regulatory rules, registration of meter operators), (9) Director of Consumer Affairs, (10) Director of Public Affairs and (11) Director of Administration.

Coal Authority, United Kingdom: The Coal Authority was established under the Coal Industry Act 1994 to manage certain functions previously undertaken by British Coal, including ownership of unworked coal. It is responsible for providing information on coal reserves and past and future coal mining. It settles subsidence claims not falling on coal mining operators. It is also responsible for the management and disposal of property, and for dealing with surface hazards such as abandoned coal mine shafts.

Federal Energy Regulatory Commission (FERC), US: The FERC of the US, created by a statute in 1977, is successor to the Federal Power Commission that was set up as early as 1920. The FERC is an independent regulatory commission that has clearly defined areas of jurisdiction in gas, oil, electricity and related environmental matters. In electricity, the commission's functions include the sale of wholesale electricity and inter-state transmission of electrical energy. Retail electric sales, i e, sales to end-users, are regulated by the state Public Utility Commissions. Transactions that do not involve end-users, such as utility-utility purchases and sales, or private power projects to utility transactions are wholesale and hence come under the jurisdiction of the FERC. In case of hydro-electric power generation, the commission has powers to licence projects, investigate dam safety and assess head-water benefits and environmental issues and promote inter-agency co-ordination.It also orders provision of extraordinary services when it is in public interest. It ensures wholesale ratos are reasonable and just, not unduly preferential and discriminatory. FERC has five members selected by the president for five-year staggered terms with the consent of the Senate. It meets twice a month to consider licence applications, rate filings and other matters submitted by regulated companies and sets industrywide rules. Commission meetings are open and televised.

Regulation of Energy Sector, New Zealand: The New Zealand government is committed to 'light-handed regulation' of the energy sector. It has included both the electric and gas industries in its programme of deregulation and privatisation. In 1987, the publicly-owned electricity industry was corporatised as Electricorp, and the functions of generation and marketing were separated. In 1992, with the enactment of the Energy Sector Reform Act, electricity generation was officially deregulated. Responsibility of the high voltage transmission was given to a corporation, i e, transpower. The area distribution authorities were corporatised at the same time. At the same time the local gas utilities were corporatised and required to maintain separate accounts for their transportation of gas by pipeline and their retail operations. The market for bulk gas supply was opened up to competition. In contrast to the UK, the New Zealand government did not consider it necessary to establish specific regulatory authorities. Instead it relied on the power of the Commerce Act to police anti-competitive behaviour and the abuse of monopoly power. Critics of this system hold that courts are only referral bodies and that the process may be protracted.

VI

Proposed Coal Regulatory Authority

In view of the recent deregulation of the coal sector it is proposed that a single autonomous and empowered regulatory authority be instituted in this sector on the basis of a suitable parliamentary decree The salient functions of the authority will be

(i) to promote competition i e to create a market with multiple producers each with very limited powers to influence price

(ii) to oversee prices and protect consumer's interest through regulating prices in areas where residual monopoly powers natural or historico specific will remain

(iii) to articulate and achieve non-market objectives i e environmental protection and conservation of natural resources and

(iv) to resolve inter party disputes

The proposed authority therefore is perceived to have three distinct types of functions

(i) regulatory functions

(ii) facilitating functions and

(iii) adjudicating functions

The regulatory body should be adequately empowered to carry out its functions effectively The required changes in the existing legal and executive structures may be suitably changed to accommodate such a body

Promotion of competition can be achieved by removing the obstacles/disincentives to the entry of private capital in the coal sector In the short and the medium run this would require fair distribution of the explored but unworked coalfields through competitive bids The requirement for an autonomous body to oversee the process of identification and fixing of economic parameters for allocation of coal blocks has been highlighted by the experience of the existing captive coal mines of the user industries In many of the cases the marginal mines with inferior geophysical characteristics leading to high mining costs/low returns have been alloted Moreover the size/capacity of the mining blocks were often not commensurate with the input requirement of the user throughout its economic life In the long-run fresh investments by new players can be sustained by stepping up exploration work on inferred coal reserves and by disseminating geological/technical information to the prospective explorers/miners (both for sale and captive use) It is therefore proposed that

(i) The agency should be invested with the right to allocate all existing unworked/non projectised proven reserves of coal mining blocks, irrespective of their current ownership, to eligible bidders For the efficient and unbiased allocation, it should have the right to frame appropriate bid-evaluation criteria and to determine the fair price of the block based on justifiable economic criteria i e, the minimum economic recovery percentage, minimum transfer price, etc

(ii) The agency should be endowed with the right to take appropriate steps to accelerate the pace of exploration of the inferred reserves Once again, allocation of exploration rights/licences should also rest with this authority The appropriate terms for conferring exploration rights to different kinds of investment proposals i e exploration only exploration-mining open market sales exploration-mining-captive consumption should also be decided by the authority

(iii) To promote competition the authority should disseminate information on geo mining conditions of different categories of mines as obtained from the geological survey of India and other independent explorers as and when available The fees charged for such information may then be suitably distributed among the different agencies involved in generating the information base

For protecting the consumer s interest, it will be necessary to ensure that the prices charged are fair and based on the most efficient production process It is proposed that

(i) The authority should have the powers to notify normative pithead prices for different grades of coal, especially where noticeable concentration of ownership of reserves exist The normative prices are to be fixed on the basis of achievable best practice norms of production and should also guarantee a reasonable return on capital At the same time care should be taken to see that the normative prices are comparable to the landed cost of corresponding grades of coal at the ports assuming that duty rates are brought down to comparable international levels Moreover as coal is an exhaustible non renewable natural resource the authority must impose discipline in coal use at the users end This calls for an element of discount or premium in the normative price for promoting user-efficiency of coal

(ii) It should however be noted that cross subsidisation between different grades of coal may have to be resorted to when welfare or strategic considerations outweigh the considerations of productive efficiency For example coal being a bulky

commodity, the delivered cost of coal may lie well above the normated pit-head cost, the difference being equal to the transportation cost. For low valued coal (soft-coking coal for domestic use, etc), where transportation cost may form the bulk of the delivered cost, some form of cross-subsidisation may be necessary. In such cases of aberration from normative pricing, the authority must clearly state the reason and the sources of cross-subsidies.

(iii) In a deregulated market for coal, it is expected that intermediaries will operate on the supply side. Thus, the final price paid by the consumers (other than those making direct bulk purchases) will depend upon trading margins. Therefore, the authority should also have control on the permissible trading margins. As it may not be practical to include all traders into such a scheme, it is proposed that large traders with turnover exceeding a stipulated amount, be brought under the jurisdiction of this scheme. Last but not least, the pricing formula must devise an effective method of recovering and distributing the costs of environmental degradation among the various beneficiaries of the mining operations.

(iv) The regulatory authority may also decide on the segregation of vertically integrated activities in the interest of promoting efficient resource use through competitive pressures, e g, segregating washing operations from mining.

(v) It must also possess punitive powers to bring erring parties to book through imposition of penalties, i e, cancellation of licences, etc.

The authority must also perform a number of facilitating functions to expedite the entry of private capital, both domestic and overseas, to the coal sector. All prospective investors in the coal sector will have to act within different sets of legal frameworks under different sets of administrative authorities (i e, local level, state level and central), often overlapping and acting at cross-purposes. The resulting conflicts and increased risks have proved detrimental to the inflow of investments. Therefore, it is suggested that:

(i) The authority, through its subsidiaries at regional levels, should serve as a single-window agency for obtaining clearances for the investment proposals at different levels of administration. To act effectively in this matter and to ensure speedy execution of projects, it should be granted powers to circumvent the existing procedures and interact directly with the different judicial/executive agencies involved.

(ii) In the process of doing so, the authority will have gained intimate knowledge of the various bottlenecks and anomalies in the system. Therefore, the regulatory body should be enbled to make suggestions to the relevant agencies for effective rectification of the shortcomings.

In a deregulated market, the authority is required to see that all contractual obligations between a seller and a producer are duly respected. This is more important in cases of residual monopoly power resting with the supplier. For example, non-conformity with stipulated quality (sub-standard products), interrupted or delayed despatches which cause financial damage to the user should be discouraged. The Function of resolution of inter-party disputes, gives rise to the following suggestions:

(i) The authority should be granted a quasi-judicial apellate status to resolve all such cases and impose suitable penalties on the offending parties.

(ii) More importantly, the authority should have access to all information from all the market players that it needs to discharge its duties as a price-setter and an arbitrator.

The regulatory authority must be truly autonomous, functioning out of the direct line of control of any specific ministry or department. Its members should be appointed by the president of India and accountable to parliament. The core functions of the authority should be discharged by professionals with demonstrated expertise in coal and its user industries. The proposed structure and division of the core functions are as given below:

(1) *A technical division* with the responsibility of fixing the technical norms for exploration, excavation, mining and beneficiation. This division should also have the power to ask for relevant information from the concerned parties and be responsible for analysing and disseminating information.

(2) *A division for regulation of coal prices* with the resposibility of fixing the normative price of coal based on the inputs provided by the technical division. The pricing formula should take into account all the different requirements listed above. Once again, this unit should be privy to all economic and commercial information from the concerned parties as might be required for carrying out its responsibilities.

(3) *A division for regulating exploration and mining acitivities* with the responsibility of allocating licences for exploring and mining. The following functions are to be performed: (a) fixing economic parameters for determination of the price/charges for exploration and mining of the identified blocks, (b) framing distortion free bid-evaluation critera to offer equal chances to every bidder, private or public, (c) deciding on the appropriate size of the mining blocks commensurate with the needs of the user in case of captive mining. Once again the base data will be supplied by the technical division.

(4) *A division for providing legal advice* with the responsibility of interfacing with the administrative and executive agencies involved in clearing the coal mining and prospecting projects. This division under direct supervision of the head of the organisation, will also undertake adjudication/arbitration in the event of disputes between all economic agents involved, i e, producer-producer, producer-consumer and producer-public, etc.

(5) In addition, there will be *divisions providing essential support services such as administration and finance management.* The proposed organisation may be a professional body with one overall in-charge and five divisional heads, appointed by the president of India and directly answerable to parliament. Alternatively, to make the body representative, it may have an additional tier above the core functional divisions, namely, a managing board consisting of the representatives of the producers, consumers, fiancial institutions, state and central governments.

VII
Concluding Remarks

Deregulation of the coal sector, by itself, may not lead to accelerated investment, expansion in production and competitive market conditions resulting in cost and price efficiency. Certain rigidities within the coal sector as also in the macro-economic environment imply that the gains of economic liberalisation can only be consolidated through the creation of a regulatory agency. This experience is not unique to India. Even the mature market oriented economies in the First World have come to accept the utility of such bodies in simulating competitive conditions under less than perfect free market conditions. The startegic importance of such bodies in hastening the process of economic growth has by now been established. These new bodies represent the latest extensions in the system of public administration all over the world. It is, therefore, expected that the Indian government should take stock of the situation and try to learn from the experience of other countries in the experiment of economic liberalisation

Industrial R and D

What Should Governments Do?

Sunil Mani

This paper attempts to demonstrate that while the developing countries are trying to pare down the role of their governments in economic matters, the developed countries are putting in place a number of support measures to help their private sectors to commit more resources to R and D. The efforts of the US and the OECD governments are examined to show how they are articulating proactive public innovation policies.

THE reduction of the discretionary role of government is an important component of public policy-making in economies across the world, both developed and developing. The more explicit articulation of this policy is to be seen in the policy with respect to privatisation and deregulation. A less virulent but nevertheless important part of this policy package is the conscious reduction of governmental intervention (read governmental support in some countries where the former term is not considered to be politically correct) in all matters of economic activity. However there are some areas where such intervention or support cannot be wished away or is even a *sine qua non*. Even the more virulent supporters of economic liberalisation, such as the World Bank.[1] have no hesitation in agreeing that certain activities like education and health cannot be left entirely with the market as these are typically the areas where known market failures are significantly greater than known government failures. To this list (which seems to be ever burgeoning) is added the area of industrial R and D. The most recent World Development Report of the Bank titled *Knowledge for Development* argues quite forcefully that "Governments in many countries have played a large role in the development and application of technology...In the past 50 years, among the handful of economies that have come a long way toward closing the knowledge gap with the global technological leaders, government was active in several, including Japan, Korea, and Taiwan, China. Korea followed a strongly interventionist and nationalist route, keeping FDI to a minimum and relying on other modes of technology transfer and a concerted domestic technological effort" [2] Similarly Joseph Stiglitz, (vice president and chief economist of the World Bank) also argues in his recent UNU/WIDER lecture[3] that " Left to itself, the market under provides technology. Like investments in education, investments in technology cannot be used as collateral. Investments in R and D are also considerably riskier than other types of investment and there are much larger asymmetries of information that can impede the effective workings of the market. Technology also has enormous positive externalities that the market does not reward. Indeed, in some respects, knowledge is like a classical public good. The benefits to society of increased investment in technology far outweigh the benefits to individual entrepreneurs. As Thomas Jefferson said, ideas are like a candle, you can use them to light other candles without diminishing the original flame. Without government action there will be too little investment in the production and adoption of new technology".

The Nobel laureate, Kenneth Arrow has argued very forcefully in a much-quoted papor that industrial R and D cannot be left entirely to the private sector. According to Arrow, R and D investment results in the creation of formalised knowledge. But the public good nature of knowledge makes it impossible for its generator to appropriate the full returns from this activity. This is known as knowledge spilllovers. The existence of knowledge spillovers encourages private economic agents to under invest (than is warranted by the social optimum) in R and D. Larger the spillovers, larger will be the desire to under invest. Subsequent empirical analyses by other economists have quantified the size of these spillovers for a sample of innovations across a large number of countries. Invariably the knowledge spillovers are sufficiently large even in purely market economies, which have very strong patenting regimes. In order to offset for possible under investment, governments across the western world have designed and put into effect various R and D subsidy schemes and other support measures.[4] These are normally contained in what is termed as public innovation or technology policies.

There has been a renewed interest in the role of government with respect to technology development. And this renewed interest has been warranted by the recent slowdown in business enterprise R and D across the developed countries (Figure 1). In fact the business enterprise R and D has not only slowed down, its rate of growth has become negative focusing once again on support measures to reverse this negative trend.

In the following we attempt to demonstrate that while the developing countries are attempting to pare down the role of government in economic matters, often enough blindly in response to external pressures such as those from being a member of the WTO, the developed countries are putting in place a number of support measures that can help their private sector to commit more resources to R and D. I accomplish this by examining in some detail the efforts of the US and OECD governments in articulating much more proactive public innovation policies. I begin with the US case.

The US Case

No other country in the world had such effective governmental support for industrial R and D as the US. There is a consensus that much of America's technological leadership since 1945 is stimulated by Federal R and D spending. Some prominent spin offs of governmental R and D efforts include: automated air traffic control, microwave ovens, biotechnology industry, integrated circuitry, commercial satellite communications, jet aircraft, satellite-based global navigation and communication, super computer and the internet

Some of these items like the internet or microwave ovens are now much used in our daily lives. Little does one realise that these technologies would not have existed had the government not initiated these projects. The importance that US attaches to technology policy can be gauged from the following four indicators.

- The so-called complementarity between Federal investments in R and D and private sector investments.
- The position of the US with respect to the R and D subsidies code in the Uruguay round of trade negotiations.

FIGURE 1: WORLD SLOWING DOWN IN BUSINESS ENTERPRISE R AND D

MSTI: 23. BERD – Compound annual growth rate (constant prices)
DATA: Values

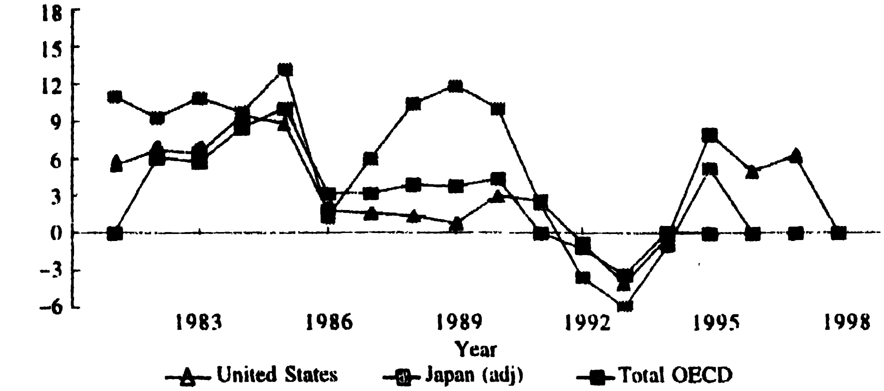
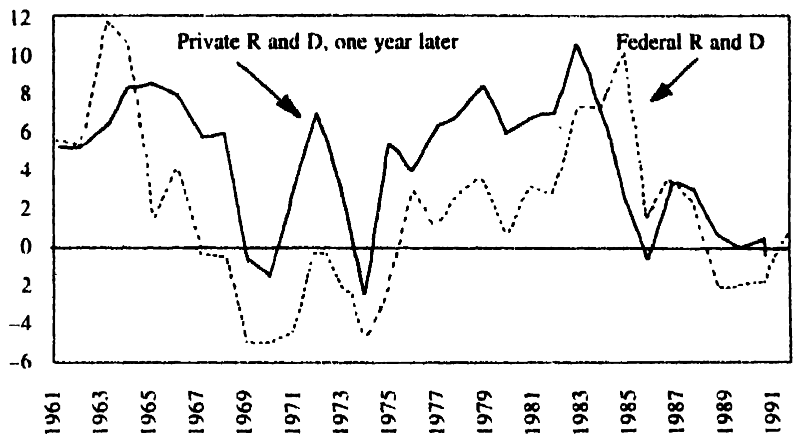


Table: MSTI981.IVT – Main Science and Technology Indicators

FIGURE 2: COMPLEMENTARY RELATIONSHIP BETWEEN FEDERAL AND PRIVATE SECTOR R AND D EXPENDITURES IN THE US



Source: Hill (1995).

- Evolution of US technology policy with its emphasis on federal technology partnership programmes.
- Direct fiscal incentives for industrial R and D

I discuss each of these issues seriatim.

Complementary Relationship between Federal R and D and Private Sector R and D: According to a report prepared by the Council of Economic Advisers (1995), any reduction in federal R and D will result in a reduction in private sector R and D expenditures. Empirical justification for this statement is provided by the study of Hill (1995) who established, graphically, a lagged positive correlation between changes in federal and private sector R and D expenditures (Figure 2). The rationale for this complementary relationship is based on the argument that as government makes more contract R and D money available to industry, firms increase their own R and D spending in hope of capturing more government funds. Industry spending also may follow federal spending patterns in order to position themselves to take greater advantage of anticipated spin-offs from the government R and D programmes.

The position of the US with respect to the R and D subsidies code in the Uruguay round of trade negotiations: The issue that the US government provides (and quite justifiably so) a variety of subsidies for R and D is very clearly evident in the text of the statement by John H Gibbons[5] (director, Office of Science and Technology Policy) before the House Subcommittee on Technology, Environment and Aviation. The statement referred to the official position of the US with respect to the R and D subsidies code contained the erstwhile Dunkel draft text of the GATT Subsidies Code. It is clear from the statement by Gibbons that:

- The US relies heavily on central government R and D support than the Japanese or the Europeans.
- The original Dunkel text would have created a *green light* category of non-actionable R and D subsidies. However in order to be protected, the government contribution could not exceed 50 per cent for basic industrial research or 25 per cent for applied research. This formulation was particularly bad for US technology policy because its investments in applied research is generally made in a 50-50 partnership with industry. This level of assistance exceeded the Dunkel limits and would have left many of the country's R and D programmes subject to challenge.
- As a result of strong negotiations by the US team these limits were revised upwards. Industrial research, planned with the idea of some commercial application down the road, may receive as muct as 75 per cent government suppori without challenge. Pre-competitive development activity, up to developmen of the first non-commercial prototype can be funded with equal shares fron government and industry.

The fact that the US lobbied within the Uruguay round of trade negotiations to effect an upward revision of the degree of subsidisation is itself a clear indicatioı of the importance that it attaches to publi innovation policies.

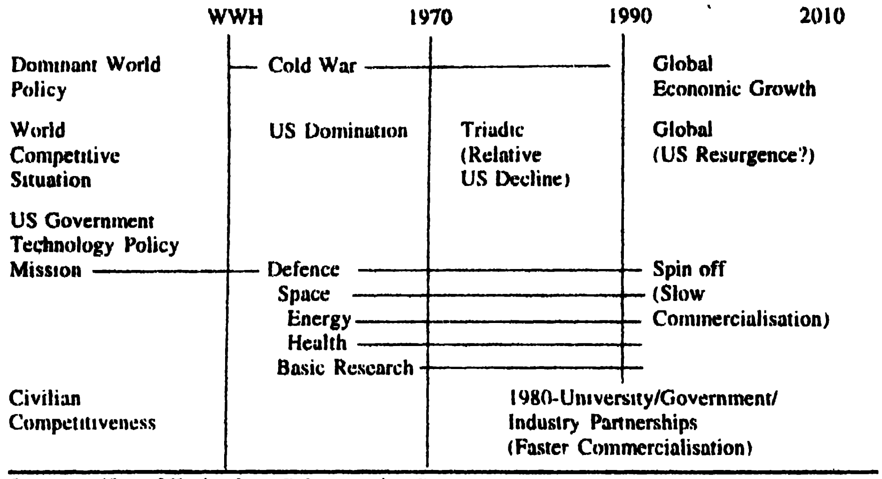
Evolution of the US technology polic with its emphasis on federal technolog partnership programmes: The US govern ment has always relied on a number o rather sharply focused instrument an institutions to effect technical chang within industry. Nelson (1988) provide a succinct summary of these. The federa government's policy with respect t technology development and its assimi lation have undergone substantial changes A chronological tracing of the govern ment's technology policy is mapped ou in Figure 3.

I now concentrate on the more contem porary period or, in terms of the classi fication in Figure 3, the period sinc 1988. This phase is also referred to as th *new paradigm* in technology policy. Th new paradigm involves an effectiv partnership with private sector industr In sharp contrast to enhanced spin-o programmes – enhancements that made easier for the private sector to com mercialise the results of mission R and I – the federal government actively devel oped a number of new public-privat partnerships to develop and deploy ad vanced technologies. There are five suc partnership programmes:

- Co-operative Research and Develop ment Programmes (CRADAs).
- Small Business Innovation Researc Programme (SBIR).
- Advanced Technology Programm (ATP).

FIGURE 3: THE US TECHNOLOGY POLICY IN HISTORICAL PERSPECTIVE

Evolution of US Technology Policy



Source Office of Technology Policy (undated).

– Manufacturing Extension Programme (MEP).
– Technology Reinvestment Project (TRP).

The main features and financial implications of these are summarised in Table. It is clear from the table that much of the support is in the form of intangibles, quite important in their own right.

Of the various partnership programmes, it is the ATP, which has come in for much discussion as this involves flows of financial resources from the Federal government to the private sector. Most evaluations of this programme[6] show that it has been very successful and are fairly unanimous in pointing out that had there been no financial support, the private sector would not have taken up the large projects on its own.

Tax incentives for increasing industrial R and D: There are two such schemes. Since 1954, industry has been able to deduct the full costs of R and D from income before taxes in the year in which they were incurred, while depreciating the costs of facilities and major equipment. Second, in 1981 with the passage of the Economic Recovery Tax Act of 1981, a series of special tax credits have been offered to firms that increase their R and D expenditure above previous levels. The effectiveness of these tax incentives to spur increased R and D investments has been a subject of many debates, both in government and academic circles. Mani (1999)provides a detailed summary of these various studies. Suffice it to stay that the evidence on this count is far from clear, but carefully done studies point to its effectiveness. Hence there has been calls for making the tax credit scheme a permanent one.

However as noted earlier the federal support for overall R and D has shown significant declines in recent times and given the so-called complementary relationship between private and federal R and D, this has lead to declining investments in R and D by the private sector too. This is corroborated by the recent exercise of Porter and Stern (1999).[7] According to the new innovation index[8] America's capacity for innovation grew strongly in the 1980s and peaked around 1989, driven by strong increases in R and D spending, workers employed in science and technology, education spending, and GDP per capita. Since 1989, however, the US index has been flat or falling, and is currently below the level for 1978. The

TABLE: KEY FEATURES OF FEDERAL PARTNERSHIP PROGRAMMES

	Co-operative Research and Development Agreement (CRADA)	Small Business Innovation Research (SBIR)	Advanced Technology Programme (ATP)	Manufacturing Extension Programme (MEP)	Technology Reinvestment Project (TRP)
Project selection basis	The private sector partners are free to propose a research collaboration in area within the scope of a federal government lab's research mission	Government chooses mission topics on which it will consider proposals; applicants then propose specific projects.	All research areas are open to industry proposals involving high-risk enabling technology Selection of proposals for funding is made by National Institute of Standards and Technology on the basis of extensive peer review of technical and economic issues.	MEP Centres provide help to all SMEs who seek it.	Focuses on technology development and deployment issues of importance to the defence mission
Government Financial Assistance	The labs may contribute human and physical resources to the collaborative project but may not directly contribute any funds As general matter, the lab contributes no more than 50 per cent of the total cost of collaboration	The funding agency pays the costs of the project, up to $ 1,00,000 for Phase I projects and up to $ 7,50,000 for Phase II projects	Agency award co-operative agreements with required cost-sharing	The entire programme consists of non-financial assistance	Co-operative agre... with required cost-sharing
Non financial Support	Technical collaboration is the mainstay of the agreement	None	Value added project oversight and technical support	do	Project oversight and technical support

Source. Broady (1996)

FIGURE 4: PUBLIC SUPPORT TO INDUSTRIAL R AND D IN DEVELOPED COUNTRIES, TYPEWISE, 1989-93

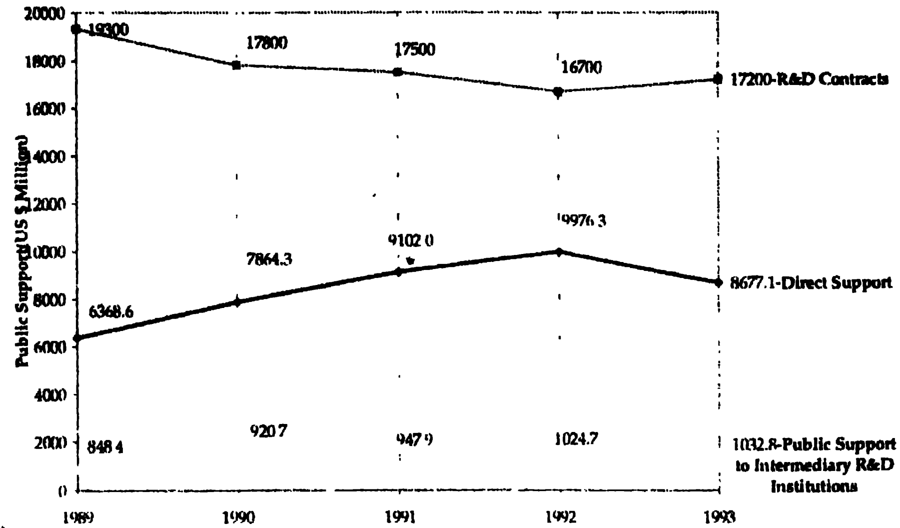
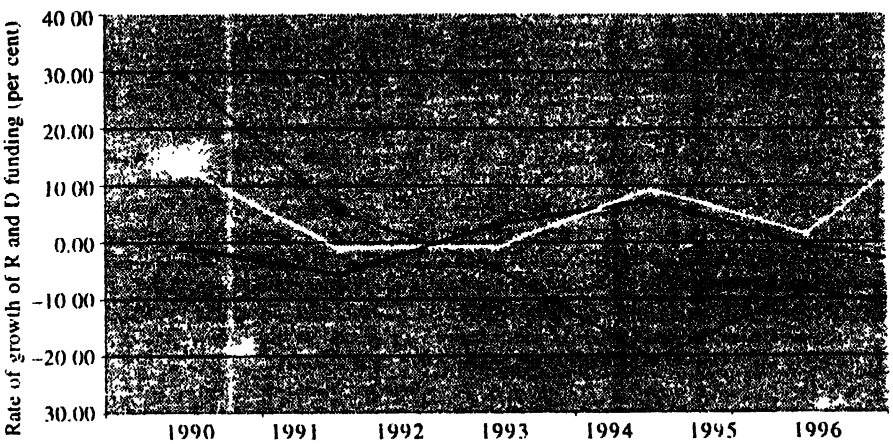


FIGURE 5: REAL RATE OF GROWTH OF GOVERNMENT FUNDING OF CIVILIAN INDUSTRIAL R AND D IN THE UK



	1990	1991	1992	1993	1994	1995	1996
Own sources	-0.81	-5.76	3.15	7.26	-0.62	-4.97	-3.92
Government	29.46	5.35	-4.36	-20.68	-8.37	-13.84	-26.36
Overseas	13.22	-1.18	-0.92	9.24	1.44	21.60	17.83

drop in spending on R and D and education and a decline in the relative international openness of the US economy are identified as the causative factors. Based on the trends identified by the index, Porter and Stern predict that the US stands to fall from the first place in 1996 to sixth place by year 2006.

THE OECD CASE

It is clear from Figure 1 that Europe too has experienced a significant slow down in R and D investments. In fact according to Eaton, Gutierez and Kortum (1998) a possible explanation for the lacklustre economic performance of Europe may be to its research performance. The simulation exercises conducted by the authors show that achieving a 10 per cent rise in the average level of EU income would require a permanent research subsidy of around 4.9 per cent.

A recent OECD study titled *Public Support to Industry* has identified that the governments in these countries have been supporting technology creation and development through essentially three direct instruments, namely:

- Direct financing measures to support R and D activities of manufacturing enterprises.
- Civilian and defence-related R and D contracts.
- Support to intermediary R and D institutions.

The flow of financial resources from the government to the private sector on the above three counts are mapped out in Figure 4. It is seen that the direct support to R and D is the fastest growing category: the temporary dip in 1993 is attributed to reporting gaps. And within the direct support category about 60 per cent is made up of research grants. This is quite significant as even in the free market economies direct financial support for R and D in the form of research grants is becoming more popular than indirect support measures such as tax concessions, etc.

Among the OECD economies, it has been the UK which has systematically reduced the importance of government with respect to financing of civilian industrial R and D (Figure 5). Government financing of civilian industrial R and D has declined in real terms and so it is not surprising that funding of R and D by business enterprises from own sources has suffered significant declines. According to Walker (1993), "the violent doctrinal swings" that have characterised the governance of the country has led to "instability in government policies". So it is not surprising that the position of UK in the league table constructed by Porter and Stern is fairly at the bottom.[9] Porter advocates, inter alia, a huge transfusion of funds into R and D and higher education for UK to reverse its unenviable transformation from being an innovator to an imitator (again according to Porter). In order to reverse the trend, Porter would like Britain to organise "high-powered incentives" to aid entrepreneurs. No doubt this is a dreadful comment for a country which has been at the forefront of the industrial revolution during the last two centuries.

This apparent retrogression of the UK's national innovation system is an important pointer to other countries, both in the developed and developing world, which attempt blindly to reduce the role of government with respect to supporting industrial R and D.

Refreshingly there is a clear recognition of this increased role for government with respect to industrial R and D in the analytical report to the recently released *White Paper on Competitiveness*.[10] The report makes the following statement with respect to the role of government:

> There is an important role for government in ensuring that our science and engineering base and our ICT infrastructure continues to strengthen. Government has a role in encouraging investment in basic science, which may not have immediate commercial application, and in fostering investment in new technology where the risks may be too great for a single firm. It also has a role in technical education, in the spread of best practice and in encouraging scientific excellence. Development of our ICT infrastructure also requires government action in establishing the right regulatory environment and setting technical standards.

However, the *White Paper* revels in ambiguity when it comes to spelling out the specifics of this role of government in terms of fiscal and other incentives. On the contrary, there is a sort of profound vagueness when it refers to a new model of public policy which helps the markets to function better.

Summing up

I have shown in the above that governments must play an important role in terms of increasing investments in R and D. This role is to be interpreted as initiating a set of policy instruments and institutions which will aid the private sector to overcome the problem of appropriability of research output and the consequent possibilities of under-investment and it will be different for basic research and applied and developmental research. As far as basic research is concerned recent events and discussions have clearly shown that there is no other alternative but for governments to shoulder this in its entirety. For instance, a recently released study by the Committee for Economic Development titled *America's Basic Research* underlines that government support for basic research is critically important. As far as applied and developmental research is concerned, governments can put in place a variety of instruments through which its actual conduct in the private sector is strengthened. These instruments consist of tax incentives to private sector to do more R and D, provision of adequate quantities of venture capital, financial aid in the organisation and maintenance of technical standards, administration of sharply focused partnership programmes in areas of high-technology and the strengthening of the higher education sector.

Given the recent growth performance and growth potential it is no longer meaningful to treat all developing countries as a homogenous bunch. The countries of East Asia, India and China, and some of the Latin American countries have relatively more advanced national systems of innovation. However even in this select group, with the exception of Korea and Taiwan, most of the countries do not have very clearly articulated instruments and institutions embodying their respective governments' forays into technology policies. A classic example is that of India where approximately one half of civilian industrial R and D is done by the private sector.[11] But whether the Indian government has a technology policy worth the name (notwithstanding the existence of so-called Technology Policy Statements) is a moot point. Singapore is usually regarded as a free market economy. But from 1991 onwards the government of that country has been busy putting in place a very sharply focused technology policy [Mani 1999]. It is not that easy to wish away a role for government with respect to the organisation and conduct of industrial R and D.

Notes

[The views expressed here are the author's own. The author wishes to thank Ad Notten for helping him with otherwise inaccessible literature.]

1 The main theme of the 1997 *World Development Report* was 'State in a Changing World'. According to the report, the first responsibility of the government lies in getting the fundamentals right Five fundamental tasks lie at the core of every government's mission, without which sustainable, shared, poverty-reducing development is impossible. These five tasks are: establishing a foundation of law, maintaining a non-distortionary policy environment, including macro-economic stability, investing in basic social services and infrastructure, protecting the vulnerable, and protecting the environment.

2 World Bank (1998), p 32.

3 Stiglitz (1998). See also the Stiglitz (1999).

4 For a survey of various governmental support schemes, see Mani (1999).

5 Gibbons (1994).

6 See Mani(1999) for a summary of the various studies evaluating the ATP. Also see Powell (1997) for a very detailed evaluation of the ATP

7 The innovation index by Michael Porter and Scott Stern is due to be published by the Washington-based think-tank, Council on Competitiveness by the middle of March 1999. The present account of it is based on Judge (1998).

8 The index, which ranks 17 countries annually from 1975 to 1996, attempts to explain the differences among countries by relating their international patents to six factors: (1) R and D spending by companies, universities, and government; (2) the number of R and D personnel in the workforce; (3) the share of GDP invested in education; (4) intellectual property protection; (5) GDP per capita; and (6) international openness.

9 UK ranks 13 out of a possible 17 and has high probability to end with the 15th rank by year 2006. See Marsh (1998).

10 Department of Trade and Industry (1998).

11 See Mani (1998). The share of the private sector in terms of the output of R and D in terms of number of patents taken within India is even higher at about 61 per cent.

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Industrial Growth and Structure

Manufacturing Sector in Maharashtra

L G Burange

Maharashtra occupies a very significant position as far as the manufacturing sector in India is concerned. However, since 1970s the share of the secondary sector in the State Domestic Product has been stagnating around 33 to 34 per cent. Further, the state is experiencing significant changes in the industrial composition wherein capital and intermediate goods industries are becoming dominant. The manufacturing sector is itself undergoing major structural changes. Over the period 1979-80 to 1994-95 the state realised a high growth rate in fixed capital resulting in decrease in employment. The rising capital intensity and thereby substitution of capital for labour, low growth rates of output and value added, all do not indicate satisfactory performance of the state on the industrial front. However, there is a revival in the manufacturing sector in post-reform period.

I
Introduction

THE industrial scenario of India underwent fundamental change in the mid-1980s with the first round of liberalisation. The new economic policy introduced in 1991 is expected to provide a further boost to the industrial sector. After 1991 many state governments have come out with policies for promoting industries, especially through foreign direct investments. However, without discerning the trends over the years at industry level, any growth strategy, propelled by private investment, may be unduly optimistic.

Thus, industrial growth and structure at the state level has to be analysed at disaggregate level in order to evaluate industrial policies and potential for growth. In this paper efforts are made to analyse industrial structure and growth of the manufacturing sector in Maharashtra with as much disaggregation as possible. This study is divided into 11 sections. In Section II data have been discussed. Section III describes the industrial situation in the state. Section IV analyses industrial composition while Section V deals with manufacturing sector. Employment and output elasticities as well as factor intensity are discussed in Sections VI and VII respectively. The changes in structural ratios are analysed in Section VIII. Section IX tries to locate the responsible factors. The impact of liberalisation is analysed in Section 10. The last section presents conclusions.

II
Data: Adjustments and Coverage

The main data source is the Annual Survey of Industries – Summary Results for Factory Sector (ASI). There are few limitations of the data which must be noted. Firstly, the period begins with 1979-80, because in that year ASI started publishing state level data for two-digit industries; 1994-95 is the latest year for which industrywise data is available through ASI summary results. Secondly, since the analysis depends on ASI data, the limitations of the data due to collection and compilation procedures of ASI will automatically affect our analysis. To recount a few important limitations: (a) As data in respect of less than three units in an industry cannot be shown separately, the details in respect of such units have been combined with other industries (category 38); (b) In respect of non-responding factories, no estimates have been made and incorporated in this report.

Further, it is not possible to capture the growth of modern hi-tech industries like computer and information technology industry as the ASI data clubs these industries together with other industries (category 38). Unless one gets more disaggregated data, one may not be able to analyse growth of this sector which has been showing phenomenal growth from the mid-1980s in the state. The performance of 'other industries' in this analysis may be taken as a proxy for the above observation. The industries 30 and 31 have been interchanged on account of adoption of NIC-87. With appropriate adjustments in the data, we retained old NIC groups 30 and 31. The other required data are obtained from *Economic Survey of Maharashtra*, and *Monthly Bulletin* of Index Number of Wholesale Prices in India. For deflation of current values, wholesale price index with the base as 1981-82 is used. The values at constant prices are computed using the all-India WPI series, as this is not available for the state. For deflation of fixed capital, the composite price index for building material, manufacture of machinery, machine tools and parts, manufacture of electrical machinery and manufacture of transport equipments and parts are used. The fixed capital considered in the study is the Book Value of capital which is net of depreciation. Replacement value of capital would have been more appropriate but construction of such values is a major task by itself which is not attempted in this study. To deflate value of output of different industries in manufacturing sector, the industrywise wholesale price index has been used. Total emoluments to employees are deflated to base year 1981-82, using consumer price index for industrial workers. Non-emoluments part of value added is deflated by consumer price index (general). Then adding total emoluments and non-emoluments at constant prices we get value added at constant prices.

III
Industrial Situation

Maharashtra is the leading industrialised state in our country. This can be seen from the fact that in 1969-70 the state which accounts for about 9.32 per cent of population contributed 17.91 per cent of registered factories, 17.43 per cent of productive capital, 19.10 per cent employment, 32.36 per cent value of output and 26.68 per cent of value added. However, while over a period of time Maharashtra continues to remain on top of the industrial map of India, the worrisome factor is that the state's share in Indian industry is declining which indicates that the state is losing its grip on the industrial front. In 1990-91 the state contribution in terms of registered factories declined to 14.15 per cent; in terms of productive capital it was 17.13 per cent; in terms of employment it declined to 15.18 per cent; in terms of value of output it came down to 22.7 per cent and in terms of value added it declined to 23.3 per cent. This indicates that the rest of India is doing better than Maharashtra. In 1994-95 the situation has

further deteriorated (Table 1). This paper seeks to examine the industrial performance of the state for the recent period from 1979-80 to 1994-95.

The sectoral composition of 'state domestic product' also shows somewhat unsatisfactory performance in the industrial sector. Maharashtra is an agriculturally deficit state; also beyond a point the state does not have enough scope for growth in the agricultural sector. However, this is not the case with the secondary sector. The percentage share of this sector in state domestic product continuously went on increasing up to 1972-73, but since then it has remained more or less stagnant. The percentage share of primary, secondary and tertiary sectors in 1960-61 were 41.6, 26.7 and 31.7 respectively. In 1970-71 these shares were 28.6, 34.2 and 37.2, showing moderate increases in secondary and tertiary sectors and a large decline in the share of the primary sector. In 1993-94 the shares of primary and secondary sectors declined to 21.9 per cent and 32.7 per cent respectively and that of the tertiary sector increased to 45.4 per cent. In 1994-95 there is a marginal improvement (Table 2). If the annual compound growth rates of these shares are computed from 1960-61 to 1994-95, the share of the primary sector declines by 1.65 per cent per annum whereas the share of the secondary sector increases by 0.41 per cent per annum, and that of the tertiary sector by 0.92 per cent per annum. However, if annual compound growth rates of shares of these sectors are computed for the period of this study, i e, from 1979-80 to 1994-95, we notice a decline in the share of the primary sector by 2.11 per cent per annum. The share of the secondary sector also declines by 0.19 per cent per annum. Only the share of the tertiary sector increases by 1.43 per cent per annum.

IV
Industrial Composition

In the 1960s industrial activity in Maharashtra was concentrated in the production of consumer goods. Considering value added of industries in Maharashtra in 1960, we see that the consumer goods industry contributed 52 per cent while 48 per cent was accounted for by capital and intermediate goods industries. This structure has changed completely over time. In terms of value added in 1980-81, the consumer goods industry accounted for 35 per cent whereas capital and intermediate goods industries accounted for 65 per cent. In 1995-96 the consumer goods industry accounted for a mere 17 per cent, and capital and intermediate goods industries together contributed 83 per cent (Table 3).

To strengthen the above argument, industries 20-21 to 29 which are agriculture-related are aggregated and 30 to 39 which are non-agriculture-related industries clubbed [Desai et al 1994] and their relative shares are then computed from 1979-80 to 1994-95. The share of agriculture-related industries in fixed capital, employment, value added and value of output declined substantially over the period. Correspondingly, the share of non-agriculture related industries went up (Table 4). An examination of the table reveals that during the period 1986-87 to 1988-89 there appears to be a major structural transformation between agriculture-related and non-agriculture related industries. To study the concentration of industries in the state, the Hirschman Herfindahl index (HHI) is used for the manufacturing sector for the period 1979-80 to 1994-95. The HH index has been constructed for fixed capital, for number of employees, for value of output and for value added using equation (1).

$$HHI = \sum_{i=1}^{n} P_i^2/100 \qquad ...(1)$$

where P_i = percentage share of ith industry in the manufacturing sector.

Using this index one can study with this data-set the industrial concentration in manufacturing sector. HHI can be used for two-digit industrial disaggregation in the manufacturing sector. The HHI constructed for fixed capital at constant prices shows decline which implies that the concentration is decreasing in Maharashtra, i e, fixed capital is less concentrated in few industries in the state. However, after 1989-90, it went on increasing, implying that fixed capital is getting concentrated in a few industries in the state (Table 5). As long as in this case HHI is greater than 5.56, it means fixed capital is concentrated in some industries, i e, minimum value of HHI (5.56) will be obtained when the fixed capital is equally distributed in all 18 two-digit industries. The maximum value of HH index is 100 when the entire fixed capital is concentrated in one industry only in the manufacturing sector.

By the criterion of number of employees the degree of concentration is less in the state. Employment is less concentrated in the industries than is fixed capital. The trend remains more or less the same from 1982-83 onwards. In terms of value added the degree of concentration is higher than that of employment and it is increasing over the 16-year period. Similarly, in terms of value of output (real output) the degree of concentration in the manufacturing sector in the state is higher than that of employment, increasing especially after the 1990s. In case of fixed capital manufacture of food products, rubber, plastic, petroleum and coal products, manufacture of chemical and chemical products, basic metal and alloys industries and the manufacture of electrical and non-electrical

Table 2: Sectoral Composition of State Domestic Product

(Per cent)

Year	Sector: Primary	Secondary	Tertiary
1960-61	41.6	26.7	31.7
1965-66	32.8	31.5	35.7
1970-71	28.6	34.2	37.2
1975-76	31.7	32.0	36.3
1979-80	28.7	34.5	36.8
1980-81	28.1	35.1	36.8
1981-82	27.6	33.7	38.7
1982-83	27.2	33.4	39.4
1983-84	28.1	32.6	39.3
1984-85	25.8	33.5	40.7
1985-86	23.9	35.3	40.8
1986-87	21.4	37.1	41.5
1987-88	25.4	33.5	41.1
1988-89	24.7	33.5	41.8
1989-90	24.2	33.7	42.1
1990-91	22.9	33.8	43.3
1991-92	20.1	33.5	46.4
1992-93	22.0	32.5	45.5
1993-94	21.9	32.7	45.4
1994-95	21.2	34.5	44.3
ACGR (per cent)			
1960-61 to 1994-95	(–)1.65	0.41	0.92
1979-80 to 1994-95	(–)2.11	(–)0.19	1.43

Note: ACGR = Annual Compound Growth Rate.

Table 3: Composition of Industries according to Value Added

(Per cent)

Year	Consumer Goods	Capital and Intermediate Goods
1960	52	48
1980-81	35	65
1989-90	21	79
1991-92	20	80
1992-93	16	84
1993-94	18	82
1994-95	18	82
1995-96	17	83

Source: *Economic Survey of Maharashtra*, Government of Maharashtra (various issues).

Table 1: Maharashtra's Share in Indian Industry

(Per cent)

Item	1969-70	1975-76	1979-80	1985-86	1990-91	1992-93	1994-95
No of registered factories	17.91	17.25	15.57	14.82	14.15	13.86	14.44
Productive capital	17.43	16.64	16.48	19.06	17.13	17.63	16.62
No of employees	19.10	18.26	17.45	16.06	15.18	14.73	14.49
Value of output	32.36	24.05	23.70	22.54	22.70	21.18	21.13
Net value added	26.68	24.60	24.87	25.88	23.30	22.75	22.01

machinery account for 67.40 per cent of fixed capital of manufacturing sector in Maharashtra. For value of output manufacture of food products, manufacture of rubber, plastic, petroleum and coal products, manufacture of chemical and chemical products, manufacture of electrical and non-electrical machinery and manufacture of transport equipments account for 69.66 per cent of the total output of manufacturing sector in the state in 1994-95. In case of net value added in 1994-95, only four industries account for 56.77 per cent of net value added in the manufacturing sector in the state. These industries are manufacture of rubber, plastic, petroleum and coal products, manufacture of chemical and chemical products, manufacture of electrical and non-electrical machinery and transport equipments (category 37). In case of employment 49.44 per cent employees of manufacturing sector in the state are in manufacture of food products, cotton textiles, rubber, plastic, petroleum and coal products and electrical and non-electrical machinery.

However, in 1979-80 the manufacture of food products, cotton textiles, chemical and chemical products, and manufacture of transport equipments together accounted for 59.24 per cent of fixed capital, 52.67 per cent of employment, 53.26 per cent of value added and 53.79 per cent of value of output of manufacturing sector in the state. The share of the same four industries in 1994-95 decreased to 29.93 per cent of fixed capital, 34.03 per cent of employment, 30.11 per cent in value added and 36.35 per cent in value of output. These are some of the major structural changes that have occurred in the manufacturing sector in Maharashtra.

V
Manufacturing Sector

To understand the pattern of growth in the manufacturing sector of Maharashtra, annual compound growth rates have been estimated for the period 1979-80 to 1994-95. Fixed capital of the manufacturing sector has grown by 9.65 per cent per annum over the period, non-agriculture related industries increasing by 10.65 per cent per annum, and agriculture-related industries increasing by only 6.98 per cent (Table 6).

Annual compound growth rates for two-digit industries in manufacturing sector are also estimated. Manufacture of non-metallic mineral products (32) shows the highest growth of 16.63 per cent per annum in fixed capital in the manufacturing sector. Manufacture of rubber, plastic, petroleum and coal products (30), leather and leather products (29), basic metal and alloys industries (33) and others show growth rates in fixed capital of more than 10 per cent per annum.

The output of the manufacturing sector increased by 7.12 per cent per annum. The non-agriculture related industries show higher growth rate in output at 7.93 per cent compared to the agriculture related industries which recorded 5.07 per cent growth rate per annum. Among the two-digit industries, other manufacturing industries (38) show the highest growth rate in output of 16.99 per cent per annum. It may be because this industry includes fast growing modern hi-technology industries like computer and information technology. The output of manufacture of rubber, plastic, petroleum and coal products (30), textile products (26) and other manufacturing industries (38) show high growth rate in output. The manufacture of wood and wood products (27) is the only industry which experienced decrease in output at the rate of 2.32 per cent per annum.

The manufacturing sector experienced a growth rate of 6 per cent per annum in net value added during the period of 1979-80 to 1994-95 in the state. Non-agriculture related industries show higher growth rate of 6.63 per cent in net value added compared to that of 4.19 per cent of agriculture-related industries. In case of net value added within two-digit industries, the manufacture of cotton textiles (23), recorded negative growth rate for the period under study. However, manufacture of leather and leather products (29) and textile products (26) recorded 12.60 and 13.46 per cent growth rates in value added respectively.

The performance of the state in terms of employment in the manufacturing sector is very unsatisfactory. The employment in the manufacturing sector over the period declined by 0.28 per cent per annum. This is mainly because employment in agriculture-related industries declined by 1.38 per cent per annum. However, in non-

TABLE 4. RELATIVE SHARES OF AGRICULTURE-RELATED INDUSTRIES AND NON-AGRICULTURE RELATED INDUSTRIES IN FIXED CAPITAL, EMPLOYMENT, VALUE ADDED AND VALUE OF OUTPUT

(Per cent)

Year	Fixed Capital		Employment		Value Added		Value of Output	
	AGR-IND	NAGR-IND	AGR-IND	NAGR-IND	AGR-IND	NAGR-IND	AGR-IND	NAGR-IND
1979-80	31.12	68.88	50.37	49.63	30.70	69.30	33.44	66.56
1980-81	30 48	69.52	48.70	51 30	27.29	72.71	28 56	71.44
1981-82	29.64	70 36	48.33	51.67	29.73	70.27	31.37	68 63
1982-83	31.78	68.22	46.57	53 43	27.06	72.94	30.26	69.74
1983-84	32 10	67.90	45.57	54.43	27 26	72 74	30.06	69.94
1984-85	28.99	71.01	44.89	55.11	27 15	72.85	32.69	67.31
1985-86	28.24	71.76	45.91	54.09	24.35	75 65	30.01	69 99
1986-87	29.66	70 34	45.41	54.59	27.67	72 33	30.41	69.59
1987-88	29.86	70.14	44.99	55.01	24 35	75.65	28.37	71.63
1988-89	25.38	74.62	44.00	56.00	24.74	75.26	28 50	71.50
1989-90	22.82	77.18	43 09	56 91	24 31	75 69	25.63	74.37
1990-91	21.58	78 42	43.43	56.57	24 00	76.00	23.52	76.48
1991-92	22.99	77 01	42.70	57 30	27.20	72.80	27.01	72.99
1992-93	22.66	77.34	43.01	56.99	20.17	79.83	25.10	75.90
1993-94	23.67	76.33	41 88	58 12	21 82	78.18	24.78	75.22
1994-95	24.96	75.04	41 61	58.39	25.06	74 94	24.54	75.46

Notes: AGRIND = Agriculture-related industries.
NAGRIND = Non-agriculture related industries

TABLE 5: HH INDEX WITH RESPECT TO FIXED CAPITAL, NO OF EMPLOYEES VALUE ADDED AND VALUE OF OUTPUT

Year	Fixed Capital	No of Employees	Value Added	Value of Output
1979 80	13 90	11.66	13.60	12 37
1980-81	12.74	10.55	13 46	11.68
1981-82	12.72	10 19	12 34	11 60
1982-83	10.79	9.97	12 05	11.42
1983-84	11.03	9.77	12 44	11.60
1984-85	11.26	9 81	11.49	11.48
1985-86	11.28	9 84	11.64	11.58
1986-87	10.87	10.07	11.44	11.59
1987-88	10.83	9.52	12.25	11.47
1988-89	11.20	9.51	11.58	11.54
1989-90	14.32	9.22	13.20	12.63
1990-91	14.52	9.10	12 14	13.24
1991-92	14.83	9.03	12 26	12.08
1992-93	13.49	8.98	13.73	12.30
1993-94	12.62	8.81	14.18	12.03
1994-95	12.77	8.66	11.73	11.55

agriculture related industries employment increased by 0.65 per cent per annum. Among the two-digit industries, repair of capital goods (39) realised 6.66 per cent per annum growth in employment. However, the industry is new and its data pertains to only the last six years (1989-90 to 1994-95). Industries such as food products (20-21), cotton textiles (23), wool, silk and synthetic fibre (24), wood and wood products (27), paper and paper products (28), basic metal and alloys industries (33), and transport equipments (37) recorded decrease in employment during the period. Overall, the employment in the manufacturing sector of the state declined over the period 1979-80 to 1994-95.

Although employment in the state is falling, the total emoluments at constant prices for the manufacturing sector has increased by 3 per cent per annum. The increase in emoluments is higher, i e, 3.71 per cent per annum in non-agriculture related industries, while in agriculture-related industries the increase is merely 1.51 per cent. Industries such as cotton textiles (23) and wood and wood products (27) realised a fall in emoluments. Overall, there is an increase in fixed capital and fall in employment, at the same time recording a rise in output and value added over the period of 1979-80 to 1994-95.

VI
Elasticity

We now turn to estimates of the employment and output elasticities for the manufacturing sector.

Employment elasticity: As seen in the last section, fixed capital is increasing while employment is declining in the state during this period. To study these opposite trends, employment elasticities have been estimated for industries in manufacturing sector. Using the equation (2)

$$\ln Lt = a0 + a1 \ln Yt - a2 \ln Kt \quad \ldots(2)$$

the employment elasticity with respect to output and fixed capital has been estimated. The employment elasticity with respect to output for the entire manufacturing sector is (–) 0.13 (Table 7). The elasticity for agriculture-related industries is negative 0.32. This implies that an increase in output decreases employment. The non-agriculture related industries show the employment elasticity of 0.05. The manufacture of textiles (23), textile products(26), wood and wood products (27), leather and leather products (29), non-metallic mineral products (32), etc, show positive employment elasticity with respect to output.

Employment elasticity with respect to fixed capital for the manufacturing sector in the state is 0.08. This implies that fixed capital is complementary to labour. Fixed capital is used more as a substitute for labour employment in non-agriculture related industries which explains the greater fall in employment in this group. In agriculture-related industries like manufacture of beverages, tobacco and tobacco products (22), wool, silk and synthetic fibre (24), etc, we evidence positive employment elasticity with respect to fixed capital. Thus, in these industries the use of fixed capital is complementary to employment of labour in the state. Overall at the state level, in the manufacturing sector as a whole, fixed capital use seems to be complementary to labour employment.

Output elasticity: Efforts are also made to measure the output elasticity with respect to fixed capital and labour using equation (3).

$$\ln (Y/L)t = a0 + a1 \ln (K/L)t \quad \ldots(3)$$

Output elasticity with respect to fixed capital for the manufacturing sector as a whole is 0.75 (Table 7), 0.75 for agriculture-related industries and 0.73 non-agriculture related industries. In case of two-digit industries the manufacture of food products (20-21), cotton textiles (23)

TABLE 6: ANNUAL COMPOUND GROWTH RATE FOR 1979-80 TO 1994-95
(@ Constant prices, 1981-82=100)

(Per cent)

Industry Code	Fixed Capital	No of Employees	Total Emoluments	Value of Output	Value Added
20-21	7.01	(–)0.12*	6.26	6.35	9.54
22	11.38	2.62	3.30	4.19	5.27
23	4.41	(–)3.51	(–)1.15*	1.12*	(–)8.46*
24	7.30	(–)1.96	0.33*	5.05	4.44
25	–	–	–	–	–
26	12.37	1.36*	4.24	11.60	13.46
27	3.48	(–)3.74	(–)1.20*	(–)2.32*	0.12*
28	9.06	(–)1.40	1.78	4.18	4.58
29	13.53	3.31*	7.49	9.18	12.60
30	13.59	1.76	4.25	9.32	11.61
31	11.56	0.52*	3.35	7.69	6.21
32	16.63	0.20*	3.85	8.39	5.88
33	13.08	(–)1.19	0.87	6.49	7.32
34	11.01	0.05*	2.04	3.58	3.05
35-36	8.78	0.09*	3.91	7.31	6.49
37	5.68	(–)2.02	2.56	7.28	4.97
38	8.08	2.88	4.59	16.99	8.68
39	4.90*	6.66	7.06	9.76	10.04
Manufacturing (2-3)	9.65	(–)0.28*	3.00	7.12	6.00
AGRIND	6.98	(–)1.38	1.51	5.07	4.19
NAGRIND	10.65	0.65	3.71	7.93	6.63

Note: * Statistically insignificant at 5 per cent level.

TABLE 7: EMPLOYMENT AND OUTPUT ELASTICITIES.

Industry Code	Employment Elasticity with Respect to		Output Elasticity with Respect to	
	Output	Fixed Capital	Fixed Capital	Labour
20-21	(–)0.06	0.02	0.90	0.10
22	0.05	0.18	0.19	0.81
23	0.20	(–)0.43	0.51	0.49
24	(–)0.24	0.06	0.66	0.34
25	–	–	–	–
26	0.09	0.08	0.75	0.25
27	0.38	(–)0.01	0.09	0.91
28	0.14	0.12	0.38	0.62
29	1.00	(–)0.28	0.49	0.51
30	(–)0.02	0.14	0.66	0.34
31	(–)0.22	0.21	0.63	0.37
32	0.08	(–)0.01	0.69	0.31
33	(–)0.21	0.03	0.53	0.47
34	0.26	(–)0.01	0.30	0.70
35-36	0.03	0.001	0.76	0.24
37	(–)0.42	0.25	1.08	(–)0.08
38	0.10	0.20	1.68	(–)0.68
39	0.83	(–)0.33	0.44	0.56
Manufacturing (2-3)	(–)0.13	0.08	0.75	0.25
AGRIND	(–)0.32	0.05	0.75	0.25
NAGRIND	0.05	(–)0.05	0.73	0.27

Notes: $\ln Lt = a0 + a1 \ln Yt - a2 \ln Kt$ ...(2)
$a2 > 0$ = K is complementary.
$a2 < 0$ = K is substitute.
$\ln (Y/L)t = a0 + a1 \ln (K/L)t$ ...(3)

textile products (26), chemical and chemical products (31), transport equipment (37), etc, the output elasticity with respect to fixed capital is more than 0.50. Output elasticity with respect to labour for the manufacturing sector is 0.25, which is lower than that of fixed capital. This implies that output responds more to fixed capital than to labour. Agriculture-related industries show output elasticity with respect to labour of 0.25 which is lower than that of 0.27 for non-agriculture related industries. Output elasticity with respect to labour is negative for manufacture of transport equipment (37) and other manufacturing industries (38). It means that the output responds to labour inversely in these industries suggesting large increases in labour productivity of these industries. For the rest of industries in the manufacturing sector the output elasticity with respect to labour varies between 0.10 and 0.91.

VII
Factor Intensity

Factor intensity may be studied using fixed capital per employee and value added per employee.

Fixed capital per employee

To gain insights into the trends in the factor proportions in the manufacturing sector, industries can be grouped into capital-intensive and labour-intensive industries according to whether capital per employee (K/L) is above or below the average for all the industries. However, it must be pointed out that the concepts of capital-intensive and labour-intensive industries are used only in a relative sense and not in absolute terms. Further, using the average capital labour ratio as the cut-off point for classifying industries into capital-intensive and labour-intensive ones may, however, be arbitrary. Moreover, in the absence of a specific capital-labour ratio for all the industries, average capital-labour ratio is used as the criterion for this purpose.

The average capital per employee for all the manufacturing sector was Rs 0.23 lakh in 1979-80 and Rs 0.96 lakh in 1994-95, both at 1981-82 prices. The industries with capital per employee above these respective averages may be regarded as capital-intensive and those with capital per employee below them as labour-intensive. The industries coming under each of these categories in 1979-80 and 1994-95 are listed here.

(i) *Capital-intensive industries*:
 1979-80: Industries (nos) – 20-21, 30, 31, 33, 37.
 1994-95: Industries (nos) – 24, 30, 31, 33, 37.

(ii) *Labour-intensive Industries*:
 1979-80: Industries (nos) – 22, 23, 24, 25, 26, 27, 28, 29, 32, 34, 35-36, 38.
 1994-95: Industries (nos) – 20-21, 22, 23, 25, 26, 27, 28, 29, 32, 34, 35-36, 38, 39.

It may be observed from the list that the structure of industries by factor intensity in 1994-95 remained largely the same as in 1979-80. There were, however, a few significant exceptions. The manufacture of food products (20-21), which was in the capital-intensive category in 1979-80 shifted to the labour-intensive category in 1994-95. In contrast, manufacture of wool, silk and synthetic fibre (24), which was in the labour-intensive category in 1979-80, shifted to the capital-intensive category in 1994-95.

The dwindling share of capital-intensive industries in the manufacturing sector is clearly indicated. Capital intensive-industries accounted for as much as 62.57 per cent of the total fixed capital in 1979-80 and contributed 49.10 per cent to value added and 60.72 per cent to output by employing 37.51 per cent of total number of employees in the manufacturing sector. By 1994-95 their share in employment decreased to 33.08 per cent, share in fixed capital decreased to 60.25 per cent and in value of output declined to 56.51 per cent. But their share in value added increased to 52.26 per cent. The share of the labour-intensive industries changed correspondingly. Thus, labour-intensive industries provided employment to as much as 66.92 per cent of the total employment in manufacturing sector by employing only 39.75 per cent of its capital assets in 1994-95. By the same token, it may be observed that, the capital-intensive industries usurped a large chunk of fixed capital, i e, 60.25 per cent, but absorbed just 33.08 per cent of the total employees of the manufacturing sector in the state in 1994-95.

Value added per employee

The factor intensity in the manufacturing sector can be estimated by using Lary's index. This method involves using the value added per employee comprising wage and non-wage components as a composite index for the amount of human and physical capital embodied in the production of a good. The wage and non-wage components of the value added per employee may be taken to reflect the flows of the services of labour (human capital) and capital (physical capital) into the manufacturing process. Thus, the wage component of the value added per employee can be used as a proxy for human capital and the non-wage component, a proxy for physical capital.

Lary's method is based on two assumptions. First, the inter-industry differences in wages are assumed to reflect differences in their requirements of skilled labour. Since wage rates are positively related to the skill levels, this assumption is not restrictive. As Lary has demonstrated, US data reveal a positive and significant correlation between the wage value added per employee and the ratio of skilled labour to the total employment. This phenomenon was examined by Mitra (1974) in the light of the Indian data for the period 1960-65 and his results supported it. Second, inter-industry differences in the non-wage value added per employee are assumed to reflect differences in respect of physical capital invested. Accordingly, the non-wage value added per employee can be used as the indicator of the physical capital as against the stock figures.

Though affected by various market imperfections, there are two advantages of value added per employee as a criterion of capital intensity. One is that, being a flow rather than a stock figure, it fits in better with the notion of factor inputs into production and therefore it is more relevant to the theory of production functions. Secondly, it bypasses the difficulty of measuring the stock of physical capital.

Thus, value added per employee can be used as a reasonably good guide to the factor intensity of different industries. Industries can be classified into labour-intensive or capital-intensive ones according to whether the value added per employee is lower than or higher than the average value added for all the industries. Therefore, it can be postulated that the higher the value added per employee, the more capital-intensive the industry; lower the value added per employee, the more labour-intensive the industry. The average value added per employee for all the industries was Rs 0.26 lakh in 1979-80 and Rs 0.63 lakh in 1994-95 both at 1981-82 prices. The industries with value added per employee below these respective averages are regarded as labour-intensive and those with value added per employee above them as capital-intensive. The industries coming under each of these categories in 1979-80 and 1994-95 are listed here.

(i) *Capital-intensive industries*:
 1979-80: Industries (nos) – 30, 31, 33, 34, 35-36, 37.
 1994-95: Industries (nos) – 24, 30, 31, 33, 35-36, 37.

(ii) *Labour-intensive industries*:
 1979-80: Industries (nos) – 20-21, 22, 23, 24, 25, 26, 27, 28, 29, 32, 38.

1994-95: Industries (nos) – 20-21, 22, 23, 25, 26, 27, 28, 29, 32, 34, 38, 39.

It may be observed that the structure of industries by factor intensity in 1994-95 remained largely the same as in 1979-80. There were, however, a few significant exceptions.

The dwindling share of labour-intensive industries in the manufacturing sector is clearly indicated. Capital intensive industries accounted for as much as 67.52 per cent of the total fixed capital in 1979-80 and contributed 66.11 per cent of value added and 64.02 per cent of output by employing 44.98 per cent of the total number of employees in the manufacturing sector in the state. By 1994-95 their share in employment increased to 47.84 per cent and in fixed capital to 72.09 per cent, while their share in value of output increased to 70.24 per cent. The share of these industries in value added jumped to 69.89 per cent in 1994-95. The share of labour-intensive industries declined correspondingly. In short, the capital-intensive industries are becoming more dominant in the state.

VIII
Structural Ratios

In order to analyse industrial production in Maharashtra, it is worthwhile to examine some key ratios. Instead of just analysing the ratios, it is more appropriate to analyse the changes in these ratios which will reflect the structural changes in the industry in the state. This has been done by formulating some specific questions to which these ratios would provide the answers. They are as follows: (i) what is the increase in the cost of creating one job, i e, growth of (FC/NE)? (ii) what is the level of growth in the productivity of an employee and in per unit of fixed capital, i e, growth of (VA/NE) and (VA/FC)? (iii) what is the increase in the average wage of an employee, i e, growth of (EMO/NE)? (iv) what is the change in the share of wages in value added i e, growth of (EMO/VA)? (v) what is the increase in fixed capital per unit of output, i e, growth of (FC/VO)? (vi) what is the increase in average output of an employee, i e, growth of (VO/NE)? (vii) what is the increase in labour cost per unit of output, i e, growth of (EMO/VO)? and (viii) what is the change in value added generated by one unit of output, i e, growth of (VA/VO)? The answers to all these questions vary according to the industry in the manufacturing sector of the state. The annual compound growth rate has been computed for these ratios for the period from 1979-80 to 1994-95.

The cost of creating one job means the fixed capital per employee. This is the indicator of capital intensity of the industry. The cost of creating one job increased by 9.96 per cent per annum in the manufacturing sector (Table 8). The non-agriculture related industries show higher increase than the agriculture-related industries. However, manufacture of non-metallic mineral products (32) shows the highest increase of 16.39 per cent per annum for the period. The repair of capital goods (39) shows a decrease in this cost.

Increase in productivity of an employee is 6.29 per cent for the manufacturing sector. The non-agriculture related industries demonstrate higher labour productivity than that of the agriculture-related industries. The rise in labour productivity is highest in the manufacture of textile products (26). However, the manufacture of cotton textiles (23) demonstrates a fall in labour productivity in the state during the period. In case of capital productivity (VA/FC), the state experienced a fall of 3.33 per cent per annum during the period. The fall in capital productivity is more pronounced in non-agriculture related industries. The industries in the manufacturing sector except manufacture of food products (20-21), textile products (26), other industries (38) and repair of capital goods (39), demonstrate a fall in capital productivity. This fall is more pronounced in the case of manufacture of cotton textiles (23). The fall in capital productivity

TABLE 9: INDUSTRIAL DISPUTES IN THE STATE

Year	Number of Strikes and Lockouts	Number of Workers Involved	Number of Mandays Lost
1961	274	83400	575600
1966	781	514400	3541900
1971	690	450700	2052500
1976	337	151900	421000
1981	636	200700	9505400
1986	300	83100	5297800
1990	193	60100	4008900
1991	217	59400	4649300
1993	194	83600	3956300
1994	156	89200	3686400

Source: *Economic Survey of Maharashtra 1994-95*, Government of Maharashtra.

TABLE 8: ANNUAL COMPOUND RATE OF GROWTH OF STRUCTURAL RATIOS FOR 1979–80 TO 1994–95
(1981–82 = 100)

(*Per cent*)

Industry Code	Structural Ratio								
	FC/NE	VA/NE	VA/FC	EMO/NE	EMO/VA	FC/VO	VO/NE	EMO/VO	VA/VO
20–21	7.14	9.67	2.36*	6.39	(–)2.99	0.62*	6.48	(–)0.08*	3.00
22	8.54	2.58	(–)5.49	0.66*	(–)1.87	6.90	1.53*	(–)0.86*	1.03*
23	8.22	(–)5.13*	(–)12.33	2.45	7.99*	3.26	4.80	(–)2.24	(–)9.47
24	9.45	6.53	(–)2.67	2.34	(–)3.93	2.15	7.14	(–)4.49	(–)0.58*
25	–	–	–	–	–	–	–	–	–
26	10.86	11.95	0.98*	2.85	(–)8.13	0.69*	10.11	(–)6.59	1.67*
27	7.50	4.01	(–)3.25	2.64	(–)1.32*	5.94	1.47*	1.15*	2.50*
28	10.61	6.06	(–)4.11	3.23	(–)2.67	4.69	5.65	(–)2.30	0.39*
29	9.89	9.00	(–)0.11*	4.05	(–)4.55	3.98	5.68	(–)1.55*	3.14*
30	11.63	9.68	(–)1.75*	2.45	(–)6.60	3.90	7.44	(–)4.64	2.09*
31	10.99	5.66	(–)4.80	2.82	(–)2.69	3.59	7.14	(–)4.03	(–)1.38*
32	16.39	5.66	(–)9.22	3.64	(–)1.92*	7.60	8.17	(–)4.18	(–)2.31
33	14.45	8.50	(–)5.21	2.09	(–)5.84	6.18	7.78	(–)5.28	0.64
34	10.96	3.00	(–)7.17	2.00	(–)0.98*	7.17	3.54	(–)1.49	(–)0.52*
35-36	8.68	6.39	(–)2.10	3.81	(–)2.42	1.37*	7.20	(–)3.16	(–)0.76
37	7.86	7.13	(–)0.67*	4.68	(–)2.29	(–)1.50	9.50	(–)4.40	(–)2.16
38	5.05	5.63	0.55*	1.66	(–)3.76	(–)7.62	13.72	(–)10.60	(–)7.11
39#	(–)1.65*	3.17*	4.91	0.37*	(–)2.71*	(–)4.43	2.91*	(–)2.46*	0.26*
Manufacturing (2-3)	9.96	6.29	(–)3.33	3.29	(–)2.83	2.36	7.42	(–)3.85	(–)1.05
AGRIND	8.48	5.65	(–)2.61	2.93	(–)2.58	1.82	6.55	(–)3.40	(–)0.84*
NAGRIND	9.94	5.94	(–)3.64	3.04	(–)2.73	2.52	7.24	(–)3.91	(–)1.21

Notes. FC= Fixed Capital; NE = Number of employees; EMO = Total emoluments to employees; VA = Value added; VO = Value of output.
* Statistically insignificant at 5 per cent level. # Data for industry 39 is available from 1989–90 onwards.

may be because of rising capital intensity in the manufacturing sector of the state.

The average wage of an employee (EMO/NE) in the manufacturing sector increased by 3.29 per cent per annum during the period. However, the increase in labour productivity is much more than the rise in average wage of the employee. The non-agriculture-related industries experienced higher rise in average wage than the agriculture-related industries in the state. All the industries in the manufacturing sector experienced growth in the average wage of employees.

Though the average wage of an employee in the manufacturing sector showed an increase, the share of emoluments to employees in value added (EMO/VA) declined for the manufacturing sector during the period in the state. That is, the wage share in value added declined by 2.83 per cent per annum. This implies that the non-wage share has increased in the manufacturing sector. The share of emoluments in value added declined faster in non-agriculture related industries than in agriculture-related industries. This share declined in all the industries except manufacture of cotton textiles (23). The decline is more pronounced in manufacture of textile products (26). The manufacture of cotton textiles (23) experienced rise in the share of emoluments in value added by 7.99 per cent per annum during the period.

The increase in capital-output ratio (FC/VO) is 2.36 per cent per annum. This means that every unit of output is produced with more and more fixed capital. This rise is much faster for non-agriculture related industries than for agriculture related industries. The increase in capital-output ratio is substantial in the manufacture of non-metallic mineral products (32), metal products and parts (34) and beverages, tobacco and tobacco products (22). However, some of the industries experienced a fall in capital-output ratio during the period. This fall is substantial in other manufacturing industries (38).

The increase in average output of an employee (VO/NE) is 7.42 per cent per annum in the manufacturing sector in the state. This increase is higher in non-agriculture related industries than in agriculture-related industries. The increase in output per employee is 13.72 per cent in other manufacturing industries (38). This general rise may be because of falling employment and rising labour productivity in the manufacturing sector in the state. The rising output per employee resulted in a fall in labour cost per unit of output (EMO/VO). The emoluments per unit of output has been falling by 3.85 per cent per annum during the period. Labour cost per unit of output declined in the state by 3.85 per cent per annum, falling faster in non-agriculture related industries than in agriculture-related industries. Emoluments per unit of output has been declining in all industries except wood and wood products (27).

The value added generated by every unit of output (VA/VO) in manufacturing sector in the state is declining. The value added per unit of output is falling faster in non-agriculture related industries as compared to agriculture-related industries. The value added per unit of output has been increasing in agriculture-related industries except manufacture of cotton textiles (23) and manufacture of wool, silk and synthetic fibre (24), whereas except a few industries, it has been declining in all the industries of non-agriculture related industries group. The fall in value added per unit of output may be associated with a fall in emoluments per unit of output. Moreover the wage share in value added is declining with falling employment and only non-wage share is increasing with increasing capital intensity.

All these structural ratios explain the increasing capital intensity, falling employment, and consequently rising labour productivity and falling labour cost in the manufacturing sector in Maharashtra. Rising wages with falling employment explains the increasing skill composition of the employees which results in an increase in labour productivity. The increasing capital intensity and higher skills explain the rising output per employee.

IX
Responsible Factors

Maharashtra was at one time the dominant state in respect of industrial development. The above analysis clearly shows that the state is experiencing a slow-down in industrial growth and that the structural changes are showing increasing capital intensity in production. Though the main purpose of this study is not of discerning the reasons for this state of affairs, to make the study complete, it is necessary to mention a few major factors.

Industrial disputes: The state experienced a major set back from the textile mill workers strike in Mumbai. This strike adversely affected both industrial workers and industries. Increasing trade unionisation in the state made industries substitute capital for labour. This has been reflected in the rising capital intensity in the manufacturing sector in the state. The militancy among trade unions also disturbed the industrial peace in the major industrial centres of the state. Table 9 explains the number of workers involved and number of mandays lost due to strikes and lockouts. In terms of wages and productivity Maharashtra's labour looks costlier than the labour in other states.

TABLE 11: COMPETITIVENESS RANKING OF INDIAN STATES

Sr No	Indian States	State Competitiveness Index
1	Punjab	82.80
2	Kerala	67.71
3	Haryana	63.25
4	Gujarat	60.63
5	Karnataka	56.19
6	Tamil Nadu	49.10
7	Maharashtra	48.77
8	Andhra Pradesh	46.69
9	Orissa	46.61
10	Assam	46.41
11	Rajasthan	39.80
12	Madhya Pradesh	36.80
13	West Bengal	34.18
14	Uttar Pradesh	25.27
15	Bihar	22.36

Source: National Productivity Council Research Division (1994)

TABLE 10: INDEX OF GROWTH IN INFRASTRUCTURE - 1980-81 TO 1993-94.
(1980-81 = 100)

Year	Maharashtra	Gujarat	Tamil Nadu	West Bengal	All-India
1980-81	100.6	102.9	100.2	101.9	103.1
1981-82	105.6	106.9	103.9	104.1	104.8
1982-83*	106.2	108.7	105.0	105.3	105.9
1983-84	106.8	110.5	106.0	106.4	107.0
1884-85	109.0	116.0	110.4	110.1	112.0
1985-86	109.9	115.9	112.4	106.6	113.7
1986-87	111.2	116.9	115.9	115.2	120.4
1987-88	113.9	120.0	118.1	116.8	124.4
1988-89	117.2	122.3	126.2	120.5	128.9
1989-90	119.7	126.2	129.8	123.2	133.1
1990-91	126.0	137.9	129.5	120.3	134.1
1991-92	124.8	140.1	132.5	119.9	136.6
1992-93	127.8	144.4	134.3	128.5	139.9
1993-94	129.0	145.6	136.9	129.5	142.0

Note: * estimated.
Source: CMIE, Profiles of States, March 1997.

Infrastructure: In the 1960s and 1970s Maharashtra had a better position in relation to infrastructure. However, in the 1980s the state lost its vantage position in this regard. Infrastructurewise other states are doing much better than Maharashtra. Infrastructural development did not occur sufficiently in places other than Mumbai, Thane, Pune, Nashik, Aurangabad belt. The growth of infrastructure in the state is certainly not satisfactory compared to other states. In this respect Gujarat and Tamil Nadu did much better than Maharashtra (Table 10).

State's industrial location policy: In Maharashtra the industrial concentration has always been in the Mumbai-Thane Pune belt. In order to have a balanced industrial development, and for dispersal of industries to backward regions, the state stopped issuing licences to new industrial units in this region. Similarly, capacity expansion was also curbed. For industrial dispersal the state provided some incentives for setting up industries in backward regions. However, considering the availability of infrastructure in the backward regions of the state, industries preferred to go to the neighboring states which were providing some more incentives and better infrastructural facilities. The state lost many industries due to this reason. A large number of small-scale units shifted to Gujarat, Karnataka and Tamil Nadu also.

Competition among states: During the 1980s many states realised their industrial backwardness and others understood their mistakes in earlier state industrial policies. These states started giving more and more fiscal incentives, better infrastructural facilities, less bureaucratic administration, etc, while Maharashtra went on following exactly the opposite policy. On this front Maharashtra is the main loser in case of manufacture of chemical and chemical products. States like Gujarat, Tamil Nadu, West Bengal, Karnataka, Andhra Pradesh, etc, are competing with Maharashtra. These states are giving more and more fiscal incentives, have less bureaucratic administration, better infrastructure facilities and are also trying to provide better climate of industrial relations.

State competitiveness: Competitiveness of a state can be broadly considered as the overall health of the economy in terms of various observable economic and social indicators which adequately demonstrate the level of development attained by the states. In a market economy, the relative competitiveness of the states becomes the guiding factor for the private corporate sector while evolving their future investment strategies. Therefore, it is necessary to analyse the relative competitiveness of Maharashtra on various performance indicators.

National Productivity Council (1994) constructed State Competitiveness Index (SCI) for major states of India. Competitiveness of the state is a composite index which includes the following 11 variables, viz, (1) transport infrastructure (road, rail and waterways), (2) telephone availability, (3) installed electricity generation capacity, (4) distribution of commercial banks, (5) life expectancy, (6) literacy rate, (7) population below poverty line, (8) size of the market (consumption + savings),(9) labour climate (mandays lost), (10) political stability, and (11) taxes levied by state government. Among these 11 variables 7th, 9th, 10th and 11th are negatively associated with the overall competitiveness of the state, while the remaining seven are positively associated. The competitiveness ranking of select 15 states of India arrived at by National Productivity Council leads to the conclusion that Maharashtra lagged behind many other states (Table 11). Punjab, Kerala, Haryana, Gujarat, Karnataka and Tamil Nadu are competitively better states than Maharashtra. These states are in a better position to attract private corporate sector than Maharashtra. Maharashtra's performance is relatively poor in case of (1) transport infrastructure (road, rail and waterways), (2) telephone availability, (4) distribution of commercial banks, (7) population below poverty line, (9) labour climate (mandays lost), and (11) taxes levied by state government.

The deteriorating law and order situation and rising extortionary activities in Mumbai, bureaucratisation of state administration, political indecisiveness, backwardness of rural Maharashtra, high power tariff, and rising systemic inefficiencies are some more causes directly or indirectly affecting industrial development. The foregoing analysis is only an initial attempt at identifying factors affecting industrial growth in the state. A more systematic and detailed analysis will be required to examine the effects of these factors.

X
Impact of Liberalisation

Using a 'Kinked Exponential Model' [Boyce 1986], the growth rate has been estimated for pre-liberalisation and post-liberalisation periods for the manufacturing sector of Maharashtra. The period 1980-81 to 1994-95 has been divided into two sub-periods, i e, 1980-81 to 1991-92 is pre-liberalisation and 1991-92 to 1994-95 is post-liberalisation. It is widely known that the inception of the economic reforms signalled the liberalisation of the Indian industry from the earlier licence raj as also from many other restrictions. The successive reductions in taxes and import

TABLE 12: ANNUAL COMPOUND GROWTH RATE OF OUTPUT OF THE MANUFACTURING SECTOR DURING PRE- AND POST-LIBERALISATION PERIOD (1981-82=100)

(Per cent)

Industry Code	1980-81 to 1994-95	1980-81 to 1991-92	1991-92 to 1994-95
20-21	6.81	7.03	5.40*
22	4.20	3.11	11.44
23	1.84	2.34	(-)1.29*
24	4.42	3.55	10.15
25	–	–	–
26	12.35	11.19	19.99
27	(-)2.65*	(-)1.95*	(-)6.99*
28	4.09	2.41	15 40
29	10.69	11.96	2.91*
30	8.80	8.58	10.23*
31	8.45	8.50	8.11*
32	8.43	10.29	(-)2.66*
33	6.63	5.81	11.98
34	3.92	2.29	14.90
35-36	7.28	6.74	10.81
37	6.92	6.18	11 78
38	17.89	14.64	40.84
39 #	9.76	–	–
Mfg (2-3)	7.35	6.91	10.20
AGRIND	5.37	5.00	7.80
NAGRIND	8.12	7.66	11.08

Notes: * Statistically insignificant at 5 per cent level
Data for industry 39 is available from 1989-90 onwards

TABLE 13: ANNUAL COMPOUND GROWTH RATE OF EMPLOYMENT IN THE MANUFACTURING SECTOR DURING PRE- AND POST-LIBERALISATION PERIOD

(Per cent)

Industry Code	1980-81 to 1994-95	1980-81 to 1991-92	1991-92 to 1994-95
20-21	0.10*	(-)0.90*	6.65*
22	2.20	1.45	7.16
23	(-)2.91	(-)3.29	(-)0.44*
24	(-)2.39	(-)2.55	(-)1.36*
25	–	–	–
26	2.26	0.39*	15.05
27	(-)3.84	(-)5.35	6.31*
28	(-)1.67	(-)2.88	6.37*
29	5.68	8.13	(-)8.65*
30	1.83	1.09	6.67
31	0.73	0.16*	4.44
32	0.22*	0.96	(-)4.38
33	(-)1.42	(-)2.04	2.60*
34	0.27*	(-)1.36	11.37
35-36	0.17*	(-)0.43	4.06
37	(-)2.38	(-)2.68	(-)0.45*
38	3.37	1.81	13.85
39 #	6.66	–	–
Mfg (2-3)	(-)0.10*	(-)0.81	4.57
AGRIND	(-)1.12	(-)1.86	3.74
NAGRIND	0.74	0.07*	5.11

Notes: * Statistically insignificant at 5 per cent level.
Data for industry 39 is available from 1989–90 onwards.

liberalisation with export promotion also boosted Indian industry. The devaluation of the rupee gave an impetus to foreign trade and industry. The capital market reforms and liberalised rules with regard to foreign capital entry ensured better access of industry to finance. The liberalisation programme facilitated private investment through dismantling of government controls on capacity creation, production and pricing, improved access to imported capital equipment, raw materials and intermediates and easier possibilities of technical and financial collaboration with foreign entrepreneurs. Liberalisation combined with devaluation has resulted in an increase in manufacturing production directed towards export markets. Liberalisation provided a 'once-and-for- all' stimulus to manufacturing growth in India through meeting the pent-up demand and opening of the infrastructure market to the private sector [Chandrasekhar 1996]. All this has helped the manufacturing sector in India in general and Maharashtra in particular. The growth performance is bound to vary across the industry depending on the nature of the industry in the state. To assess the performance of the manufacturing sector in the state, growth rates of output, fixed capital and value added all at the constant prices of 1981-82 and employment are estimated for the above mentioned period and sub-periods.

The growth rate of output of the manufacturing sector during the post-liberalisation period accelerated (Table 12), and it is more pronounced for beverages, tobacco and tobacco products (22), wool, silk and synthetic fibre textiles (24), textile products (26), paper and paper products, basic metal and alloys industries (33), metal products and parts (34), manufacture of machinery and machine tools (35-36), transport equipment and parts (37) and other manufacturing industries (38). However, cotton textiles (23), wood and wood products (27) and non-metallic mineral products (32) recorded a decrease in output in the post-liberalisation period. The food products (20-21), leather and leather products (29) and chemical and chemical products (31) show deceleration in the output during the post-liberalisation period.

The growth of employment in the manufacturing sector of the state recovered during the post-liberalisation period. The recovery is very pronounced in agriculture-related industries in the state. The food products (20-21), wood and wood products (27), paper and paper products (28), metal and alloys industries (33), metal products and parts (34), and manufacture of machinery and machine tools (35-36) all realised very pronounced recovery in employment during the post-liberalisation period in the state. However, leather and leather products (29) and non-metallic mineral products experienced a decrease in employment during post-liberalisation, while cotton textiles (23), wool, silk and synthetic fibre textiles (24) and transport equipment and parts (37) could not reverse the pre-liberalisation trend in employment during the post-liberalisation period (Table 13).

In case of fixed capital in the manufacturing sector the performance of the state is certainly better and this is more pronounced in agriculture-related industries during the post-liberalisation period (Table 14). The metal products and parts (34), textile products (26) and other manufacturing industries (38) recorded growth of fixed capital of more than 30 per cent during the post-liberalisation period. However, industries such as leather and leather products (29) and non-metallic mineral products (32) experienced a decrease in fixed capital during the post-liberalisation period.

The manufacturing sector of the state experienced substantial increases in net value added during the post-liberalisation period and it is very pronounced in agriculture-related industries (Table 15). The textile products (26), wool, silk and synthetic fibre textiles (24), paper and paper products (28), chemical and chemical products (31), other manufacturing industries (38), basic metal and alloys industries (33) and wood and wood products (27) recorded a rise in value added by more than 20 per cent per annum during the post-liberalisation period. However, cotton textile (23), leather and leather products (29) and non-metallic mineral products (32) experienced a substantial fall in net value added during post-liberalisation period.

In short, the manufacturing sector of the state certainly revived in terms of growth of output, employment, fixed capital and value added during the post-liberalisation period. This revival is more pronounced in agriculture-related industries in the manufacturing sector. However, this general tendency has some exceptions, overall performance of cotton textiles (23), non-metallic mineral products (32) and leather and leather products (29) deteriorated further during the post-liberalisation period.

XI
Conclusions

Maharashtra is the major contributor to the industrial sector in India. Over 1969-70 to 1994-95, however, the share of the state in the country's industrial sector has declined. The share of th secondary sector in state domestic product is stagnating at around 33 to 34 pe cent, while the share of the tertiary secto

TABLE 14: ANNUAL COMPOUND GROWTH RATE OF FIXED CAPITAL OF THE MANUFACTURING SECTOR DURING PRE- AND POST-LIBERALISATION PERIOD (1981-82=100)

(*Per cent*

Industry Code	1980-81 to 1994-95	1980-81 to 1991-92	1991-9 to 1994-9
20-21	7.43	6.96	10.53
22	12.34	10.33	26 03
23	5.13	2.39	24 35
24	5.77	2.38*	30 20
25	–	–	–
26	13.30	9 72	39.04
27	3.30	(–)0.79*	33.69
28	8.68	7.61	15.80
29	14.86	18.42	(–)5 43
30	13.20	12.95	14.82
31	12.77	12.02	17.68
32	10.61	13.64	(–)6.85
33	13 95	11.33	29.15
34	11.89	7.70	42.66
35-36	8.87	7.73	16 46
37	4 90	5 55	0.84
38	8.77	4.66	39.01
39 #	4.90*		--
Mfg (2-3)	9.92	8.84	17.03
AGRIND	7.11	5.25	19 76
NAGRIND	10.96	10.17	16.18

Notes: * Statistically insignificant at 5 per cen level.
Data for industry 39 is available fro 1989-90 onwards.

TABLE 15: ANNUAL COMPOUND GROWTH RATE O NET VALUE-ADDED OF THE MANUFACTURING SECTO DURING PRE- AND POST-LIBERALISATION PERIOD (1981-82=100)

(*Per cen*

Industry Code	1980-81 to 1994-95	1980-81 to 1991-92	1991-9 to 1994-9
20-21	9 96	9 74	11.3
22	5 45	4.69	10.4
23	(–)8 13*	(–)1.65*	(–)40.5
24	4 26	0.72*	29.9
25	–	–	–
26	15.10	12.62	32.2
27	0.4 *	2.67	22.5
28	4.58	1.48	26.7
29	15.62	23 00	(–)22.0
30	11 73	12 82	5.0
31	7 23	4.68	25.0
32	5 76	7.71	(–)5.8
33	8 06	5.50	23.6
34	3.56	1.93*	14.5
35-36	6.77	6.23	10.3
37	4 57	3.22	13.6
38	9.11	6.78	25.1
39 #	10 04	–	–
Mfg (2-3)	6.52	5.03	16.5
AGRIND	4 85	3 31	15.2
NAGRIND	7.08	5.62	16.9

Notes: * Statistically insignificant at 5 per ce level.
Data for industry 39 is available fro 1989-90 onwards.

increasing. The composition of industries in the state is undergoing major changes. The share of consumer goods in value added declined to less than 20 per cent while the share of capital and intermediate goods industries increased to more than 80 per cent over the period of 36 years. During the 1990s the concentration of fixed capital, value added and value of output increased in the manufacturing sector. The state realised higher growth in fixed capital at the cost of employment. Non-agriculture related industries experienced better growth than the agriculture-related industries. The complementary role of capital declined in many industries and more industries have begun substituting capital for labour. As a result capital intensity in the manufacturing sector is increasing at a faster rate.

In Maharashtra the cost of creating jobs in the manufacturing sector has increased, and this increase is more pronounced in non-agriculture related industries. The rising capital and falling employment leads to increase in labour productivity and fall in capital productivity. Employment is falling but average real wages are increasing indicating the rise in the skill composition of labour. The increase in real wages is, of course, lower than the productivity of labour. As a result the labour cost per unit of output is falling in the state.

The manufacture of jute, hemp and mesta (25), and cotton textiles (23) are declining industries, while leather and leather products (29), textile products (26) and computer and information technology industry are expanding industries in the manufacturing sector of the state.

Rising capital intensity and falling employment, and substitution of capital for labour, low growth rate of value of output and value added all reflect the unsatisfactory performance of the state in industrial activity. This state of affairs may be due to insufficient infrastructure, high power tariff, industrial disputes, state policies, aggressive competition from other states, and increasing bureaucratisation of the state administration. The declining law and order situation and rising extortionary activities in Mumbai, political indecisiveness are also some of the other factors responsible for this state of affairs. However, the industrial recovery is clearly seen by the state during the post-liberalisation period. Industries such as textile products (26), metal products and parts (34), machinery and machine tools (35-36) and other manufacturing industries (38), etc, show a positive impact of economic reforms on their performance in the post-liberalisation period. Nonetheless, the performance of cotton textiles (23), non-metallic mineral products (32) and leather and leather products (29) deteriorated further during the post-liberalisation period.

However, the state of Maharashtra still has a comparative advantage in industrial activity. In order to accelerate industrial development in the state it has to be supplemented by competitive advantage which can be engendered, nurtured and shaped by appropriate policy initiatives by the government.

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Annexure I

Two Digit Industrial Classification

Industry Code	Description of Industry
20-21	Manufacture of food products
22	Manufacture of beverages, tobacco and tobacco products.
23	Manufacture of cotton textiles.
24	Manufacture of wool, silk and synthetic fibre textiles.
25	Manufacture of jute, hemp and mesta textiles (except cotton).
26	Manufacture of textile products (including wearing apparel).
27	Manufacture of wood and wood products: furniture and fixtures.
28	Manufacture of paper and paper products and printing, publishing and allied industries.
29	Manufacture of leather and leather products, fur and substitutes of leather.
30	Manufacture of rubber, plastic, petroleum and coal products.
31	Manufacture of chemical and chemical products (except products of petroleum and coal).
32	Manufacture of non-metallic mineral products.
33	Basic metal and alloys industries.
34	Manufacture of metal products and parts except machinery and transport equipment.
35-36	Manufacture of machinery (electrical and non-electrical) machine tools, apparatus, appliances and parts.
37	Manufacture of transport equipment and parts.
38	Other manufacturing industries.
39	Repair of capital goods.
2-3	Manufacturing.

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Linguistic Perspectives on Subcontinental English

Tista Bagchi

South Asian English: Structure, Use, and Users edited by Robert J Baumgardner; Oxford University Press, Delhi, 1996; pp xviii + 286, Rs 495.

THE reality of a south Asian variety (or perhaps cluster of varieties) of English is increasingly being acknowledged in the worlds of educational policy and research, lexicography, and of course the media in the subcontinent. This recognition of south Asian English as a regional variant in its own right, of course, brings with it attendant questions, doubts, and problems, in the south Asian political and socio-economic context as well as in the context of globalisation; but, especially because of this, it is an issue worth the attention of all those who have to negotiate the teaching, maintenance, and promotion of English in south Asia. *South Asian English: Structure, Use, and Users* is a step in this direction.

The essays in this anthology grew out of a conference on south Asian English organised in Islamabad, Pakistan, in 1989, and represent a small selection of the papers originally presented at this conference. One cannot help wondering whether there is some connection between the decision to publish an anthology of this kind on south Asian English and the fact that the intervening years have seen the placing of Indo-Anglian literature on the global market for fiction (and, occasionally, considerable public hype over their fetching mega-bucks in the form of publishers' advances and winning prestigious literary awards recognised in the west). The fact that Indo-Anglian fiction has been increasingly appearing in televised and cinematographic form has certainly been bringing it growing public attention in urban India.

While the elitist role of English in the south Asian situation is a well-examined fact, what one cannot help noting is the substantial evidence presented in the more empirical essays that English in south Asia is in fact threatening to break out of its elite bounds and thus claim a (possibly competing) space for itself alongside western English. Also to be noted is the title *South Asian English* given to the anthology – note that the authors' concern is not just Pakistani English, but Indian, Bangladeshi, Sri Lankan, and Nepali English as well. What is common to English in all the south Asian nations is its status as a language to be learned for pragmatic goals geared towards upward socio-economic mobility. People typically learn – or pick up – languages with functional, practical goals in view; the desire for upward mobility or 'exclusiveness' merely comes along for the ride in a hierarchically organised society where the greater part of the material resources are available to only a small fraction of the population. Most Indians, even the poorest of the poor, have some kind of spoken competence in at least two linguistic codes (i e, what one would call 'languages' and or 'dialects'), and sometimes – for reasons of livelihood if nothing else – in three or more. This may not seem such a striking fact in isolation, but proves to be so especially when compared to the exclusively or predominantly monolingual situations found in many regions of the world, including in many western countries. English in south Asia must be viewed keeping in mind this south Asian sociolinguistic reality of bi- or multi-lingualism.

However, *literacy* in these languages of ours, let alone in English, is another matter altogether. Even today, the literacy rates for the different states of India vary widely; and, while the matter of instruction in English at the primary level of education is a contentious political issue in several parts of the country (as is evident from the numerous articles on the subject that have appeared in the pages of the *EPW* over the years), what is often overlooked is the scarcity of proper resources (and, especially, human resources) for the teaching of languages in schools – whether these are the local and/or regional languages or English or some other foreign language such as Portuguese or French (in the erstwhile settlements of speakers of these languages). This is not an issue that has been addressed in the anthology under review, given its focus on educated urban users of English in south Asia. To be fair to the contributors, however, given the urban, upper-income bias, they have attempted to be as comprehensive and as impartial as possible in covering the widest possible cross-section of educated urban users of English in the various countries of south Asia.

The 16 essays in the anthology have been grouped into five sections ('Contexts and Issues', 'Structure and Contact', 'Functions and Innovations', 'The Curriculum', 'English and the Multilingual's Creativity'). What is of interest here is that a number of the contributors are also theoretical linguists who have been engaged in the structural analysis of languages for years, if not decades. Notable among these are Charles A Ferguson (who has pursued research on the structural features of Arabic and of Bengali broadly along pre-Chomskyan, descriptivist lines; his contribution in this volume is entitled 'English in South Asia: Imperialist Legacy and Regional Asset'), S N Sridhar (who has, among other things, done extensive work on various aspects of word and sentence structure in Kannada in the generative, i e, broadly Chomskyan, tradition; author in this volume of 'Towards a Syntax of South Asian English: Defining the Lectal Range'), and Yamuna Kachru (distinguished for her work on the structure of Hindi-Urdu, also in the generative tradition; contributor of 'Language and Cultural Meaning: Expository Writing in South Asian English'). Consequently, their examination of various aspects of south Asian English is informed by a knowledge of specific features of some of the living languages that form the 'substratum' of south Asian English. Yamuna Kachru's observation that English in south Asia is to be viewed against the backdrop of south Asia as an established linguistic area is also noteworthy. Others, like Braj B Kachru ('South Asian English: Towards an Identity in Diaspora'), Richard W Bailey ('Attitudes towards English: The Future of English in South Asia'), Beverly S Hartford ('The Relationship of New Englishes and Linguistic Theory: A Cognitive-Based Grammar of Nepali English'), Kamal K Sridhar ('The Pragmatics of South Asian English'), and the editor himself (who also has an article, 'Innovation in the Pakistani English Political Lexis'), have been engaged in the sociolinguistic and structural examination of varieties of non-western English in different parts of the world. Articles that are particularly informative for an Indian or Pakistani readership are those focusing on the use of English in Bangladesh, Nepal and Sri Lanka, viz, 'Acceptability and English Curriculum

Change in Bangladesh' by A M M Hamidur Rahman, 'Some Features of Nepali Newspaper English' by Yugeshwar P Verma, Beverly S Hartford's article, 'Syntactic 'Deletion' in Lankan English: Learning from a New Variety of English about – [sic]' by Thiru Kandiah, and 'The Ideational Function of English in Sri Lanka' by Chitra Fernando. S V Shastri's report, in his article 'Using Computer Corpora in the Description of Language with Special Reference to Complementation in Indian English', that the syntactic differences between Indian English and western English are not as significant as is widely believed, is especially intriguing, and provides a starting point for further such corpus-based studies.

Amidst these articles, V K Bhatia's contribution 'Nativization of Job Applications in South Asia' stands out in highlighting what might for some readers be rather an embarrassing fact, namely, that the linguistic devices that work to a reasonable degree within the cultural context in which a south Asian language is situated appear overly supplicatory or naive when used in applications in English for jobs or scholarships directed towards western institutions. The altered geopolitical relationships in which south Asia has come to participate since the time of British colonial rule, with an accompanying lack of change in the stylistic devices used in formal or official correspondence in English within the south Asian area, are possibly responsible for this. Added to this, however, is the elitist push towards the glorification of the developed countries of the west as utopia (despite the fact that, among other things, middle- and upper-middle-class south Asians with the same absolute income levels as their counterparts in the so-called 'rich' western countries enjoy a better quality of life than the latter in most respects), which percolates down to lower-income levels as well.

Now for a couple of limitations that the anthology suffers from. There is an overwhelming concern evident throughout the anthology that no polemical issues or attitudes should be focused upon unduly. While one appreciates the ideals of objectivity and unbiased opinion that the editor and the contributors have obviously striven to adhere to, especially given the contentiousness of the subject, the result is that one has a rather staid collection; the only occasionally colourful observations and insights are offered by Anita Desai (in her rather aptly entitled contribution 'A Coat of Many Colours') and Bapsi Sidhwa (whose analysis of her *Ice-Candy Man* in her article 'Creative Processes in Pakistani English Fiction' may well afford to a lay audience in this country just about the only glimpse of what Deepa Mehta has sought to bring alive visually in her film *Earth*), the two creative writers represented among the contributors. There is also a lack of representation of the copious work of people engaging with the literary status and pedagogical history of English in India and with Indo-Anglian literature, which somewhat detracts from the value of the anthology to a wider audience interested in the more literary, cultural and political issues surrounding English in south Asia. For all its limitations, however, this is a useful anthology that can serve as a reference for factual evidence regarding structural and discourse features of south Asian English as collated and interpreted by professional theoretical and applied linguists engaging with the issue.

Restating the Case for Development

Mohan Rao

Health and Development: Intersectoral Linkages in India by K V Narayana; Rawat Publications, Jaipur, pp 197, Rs 220 (hardcover).

WHAT is the nature of the relationship between health and socio-economic development? Are historical lessons valid when it is claimed that history is at an end? What are the insights the history of health offers for health policy in developing countries today? Are favourable health outcomes related to economic growth alone or to egalitarianism? These are some of the questions that propelled the investigations in this brief book.

Most physicians and health policy planners would attribute the spectacular increase in human longevity achieved in the west since the 18th century to advances in medical technology. However, Thomas McKeown surveying the decline of the death rate in England and Wales in the registration period observed that significant and long-term declines in the death rate had occurred due to a decline in infectious and communicable diseases, the quintessential diseases of poverty and hunger. This decline in infectious diseases was unlikely to be related to changes in the virulence of the infectious agents over so short a period of time. Nor could it be attributed to salubrious changes in the environment, which indeed had deteriorated due to industrialisation and urbanisation. Excluding these possible causes for the decline of infectious diseases, McKeown went on to conclude that the dramatic decline could only have been a consequence of increased general resistance to infectious diseases through improvement in the nutritional status of the population as a result of wide-ranging changes in the agrarian economy. While McKeown acknowledged that the public health revolution of the late 19th century played an important role in reducing exposure to water-borne diseases such as diarrhoea and cholera, these could account for, at the most, a quarter to a third of the mortality decline. Even in the case of this group of diseases, the underlying cause for the decline of lethality may well have been the same, viz, increasing human resistance due to improvements in nutrition.

McKeown's thesis has been substantially strengthened by a number of other studies in other countries in the west which had similar trajectories in health as living standards improved. Indeed the period also witnessed a secular increase in heights, accompanied by a reduction in class differentials in heights, both attesting to declines in chronic hunger.

When, however, we turn to India or other colonised countries, there is almost complete consensus not only that overpopulation is the cause of both poverty and diseases – Malthus resurrected in a new avatar as the colonial and continuing drain of resources is forgotten – but that the McKeown model is absolutely irrelevant as solutions to health problems are sought in medical technology alone. The faith in the magic bullet approach to medical technology, or a commitment to a germ-centred health history, is not confined to health professionals.

Kinglsey Davis in his classic *The Population of India and Pakistan* perhaps set the trend, to be taken up by other 'dismal scientists', demographers. He argues that the gift of "death control technologies" from the west was responsible for the decline of the death rate in the country. Perhaps picking up from Davis, *The Cambridge Economic History of India*, in its chapter on population, assumes that the post-1921 decline in the death rate was due to measures of public health: while plague somewhat mysteriously subsided, cholera and small pox were vanquished by public health intervention. Indeed this understanding even colours the Marxist economic history of Amiya Kumar Bagchi who observes "the fall in mortality...seems to have been caused by spectacular advances in medical technology for controlling such bacterial diseases as malaria, small pox and cholera" [Bagchi 1982].

This disjunction between health and socio-economic development which is said to have occurred in developing countries, has led to a veritable cottage industry among academics – and indeed policy-makers in influential places such as the World Bank – with the 'paradox' or 'miracle' of Kerala. What baffled them is how an economically poor state achieved health indices on par with the developed countries of the world. And indeed most analysts attributed the 'paradox' to the development of health services or female literacy. But what Kerala also appeared to prove to these analysts was that socio-economic development is no more necessary for improvements in health to occur. But this paradox, contends the author, is simply an outcome of the manner in which the question is posed. This is fundamentally flawed since "development was implicitly identified with economic development alone, measured in terms of per capita income".

Recalling Sen, he argues that "ultimately development can be seen in terms of what people can or cannot do: whether people can live long, escape avoidable mortality, afford better nutrition, etc". Critiquing approaches to development based on measuring incomes, the author attempts to "identify inter-sectoral linkages in development, and, in the process, to explain inter-state variations in health status in India". Towards this end he evolves a composite index of development utilising 39 indicators of health care, education, status of women, the development of infrastructure and overall economic development.

In order to unravel whether health status improves as a result of development of health care services or overall socio-economic development, data from the Censuses of 1961, 1971 and 1981 are utilised in this analysis. The ranking of states by the composite index of development reveals that "Kerala's performance was superior to all other states...Its position was consistently high across different sectors in all the years. After Kerala, a consistently better performance was achieved by Tamil Nadu." It is thus no surprise that Tamil Nadu is also undergoing a demographic transition despite not having levels of female education that was considered necessary from Kerala's experience.

The BIMARU states of north India, on the other hand, had done extremely poorly on all scores. The results indicate that there is in fact nothing paradoxical about Kerala's achievements. When "development is measured exclusively in monetary terms, Kerala and Tamil Nadu were reduced to the seventh and eighth positions on the development ladder" while in terms of the composite index of development, they take the first two positions. Equally significant, "the indicators of health status were more closely associated with development when it is measured in terms of overall socio-economic development". Among the various components of development, the development of infrastructure and overall economic development was more closely associated with health status. Thus health services alone have a limited role in determining the health status of people.

What the analysis indicates is the salience of comprehensive socio-economic development in shaping the health of populations. Technical interventions which seek to, in Raynaud's famous phrase, remove society from disease, are merely palliatives [Raynaud 1975]. *Health and Development* thus makes a convincing case for the continuing relevance of the McKeown model for developing countries also.

This is particularly cogent in the present conjuncture when health policy interventions are being shaped around the world by the World Bank which believes that problems related to the distribution of wealth in a society can have solutions in health technology, that health technical interventions offer a magic wand to a plethora of social problems stemming from poverty. Arguing that this is hubris for those swayed by the wayward charms of neo-liberalism, the book makes a case for learning from history. It should be of profound importance to public health scholars, development economists and policy planners.

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Indoor Air Pollution: A Reflection on Gender Bias

Jyoti Parikh
Kirk Smith
Vijay Laxmi

Women and children below five years are among the most affected due to pollutants released during the burning of bio-fuels in traditional stoves. While there has been some attempt to reduce such exposure through the introduction of appropriately designed stoves, a better solution would be to redesign the petroleum policy such that kerosene is easily available to people at affordable prices. This would not only ease the pressure on forests and other bio-fuel resources but also have a positive effect on the health of women and children.

INDOOR air pollution due to cooking with bio-fuels is an issue that needs to be addressed through energy, environment and health policy. Many people associate air pollution only with urban outdoor environment, but some of the highest concentrations of pollutants actually occur in rural indoor environment. They come from burning bio-fuels such as wood, agriculture crop residues and dung cake, which are used by mass households in India. Women and children who stay with them during cooking are the silent sufferers. The possible solutions to this problem are to use efficient and smokeless stoves in the kitchen or better, use clean fuels. Is it difficult to provide the clean fuels for cooking because of macro-economic considerations or is it just neglect built into allocation policies reflecting a gender bias? This article discusses health impacts of bio-fuels used for cooking and strategies to reduce the impact.

I
Introduction

The 1991 Census showed that about 75 per cent of Indian households still rely on bio-fuels, such as wood, dung, and crop residues, for cooking and heating purposes. Burning unprocessed bio-fuels in traditional and inefficient stoves generates large amounts of air pollutants. From a health standpoint particulate, carbon monoxide, and a range of organic compounds including formaldehyde, benzene and benzopyrene are especially important. Mineral coal produces many more pollutants, but fortunately it is not widely used in India.

Pollutants released indoors are far more hazardous than those released outdoors because of the close proximity of people. Therefore, a bit of pollution released indoors is far more likely to reach people's lungs than if released outdoors. Typical pollutant levels during cooking hours in Indian houses are very high. Even 24-hour levels in many millions of homes apparently exceed those in the worst polluted cities. Carbon monoxide levels exceed the permissible levels of standards, but not by as large factors as do particulates. Table 1 shows particulate concentrations in personal breathing area during cooking hours in Indian kitchen which is approximately 20 times more than Central Pollution Control Board standards of 140 $\mu g/m^3$ annual average and daily average of 200 $\mu g/m^3$ in Indian residential, and rural areas.

High exposure to these pollutants has been associated with serious health problems as shown in many studies (Appendix 1) Major diseases associated with it are acute respiratory infections (ARI), chronic obstructive lung disease such as chronic bronchitis and lung cancer, and possibly tuberculosis, adverse pregnancy outcomes, blindness, heart disease and asthma.

In India, the most important disease with indoor air pollution is probably ARI, a class that includes infections from a wide range of viruses and bacteria, with similar symptoms and risk factors. As shown in Table 2, ARI plays a prominent role in the Indian national burden of disease (NBD). ARI is the single largest disease category nationally, being responsible for about one-eighth of the NBD, and affects mainly young children. At the global level also ARI is the largest single disease category that comprises about 'one-ninth' of the global burden of disease (GBD). The importance of Indian is illustrated by the startling statistic that ARI in Indian children under 5 alone is reponsible for 2 per cent of the entire GBD. There are a number of important risk factors for ARI, of course, in addition to air pollution, poor nutrition and crowding probably being the most important. The earliest observations related to biomass smoke pollution were made by doctors in the Indian medical literatures. They noted the odd fact that many rural Indian women developed severe types of chronic obstructive pulmonary diseases (COLD), in spite of not being smokers. Indeed, so severe are many of these cases that they lead to a dangerous heart condition called *cor pulmonale*, which in men is almost entirely confined to smokers.

Besides health problem there are many other negative externalities of using bio-fuels [Parikh 1995]. It has been argued that access to clean fuels should be considered as an indicator of human development (Apendix 2).

Estimates available from a recent study on annual premature deaths to children under five years of age and adult women, are in the range of 4,10,000 – 5,70,000 (Table 3). These estimates are only for these two groups of population and for specific diseases, there are certainly effects in other population groups and from other diseases also. The study also shows that ARI dominates (Figure 1) years of lost life (YLL) because of the young age of its victims [Smith 1998].

These estimates may seem shockingly high. However, it should be noted, that they are in line or even conservative in comparison with estimates for the cities in the US, of close to 60,000 annual deaths from ambient particulates [Hilts 1993; Shprentz et al 1996]. Compared to the Indian rural population, the US urban population is 2.6 times smaller (625/240), experiences average particulate levels 5-10 times lower, much higher health and

TABLE 1: INDOOR LEVEL OF PARTICULATE CONCENTRATION DURING COOKING
[Personal Monitoring of Women during Cooking]

Year of Study	Sample Size (n)	Study Area (Villages)	Concentrations ($\mu g/m^3$)
1983	65	4	6800
1987	165	8	3700
1987	44	2	3600
1988	129	5	4700

Source: Smith K 1997.

nutrition status, and has a lower overall mortality rate (which is the basis of the mortality calculations for such risk factors).

How is it that despite such a major impact, this issue is so rarely discussed and so little understood by the public? Even women themselves do not think of complaining, as this has been a way to cook for centuries. This does not mean that health risks did not exist in the past. Life expectancy has been very low and infant mortality rates very high in the past [HDR 1990]. They are only recently improving. The case of cigarette smoking comes to mind where the dangers were not understood for many decades even in the developed countries with high literacy levels, high awareness and substantial budget for health research and care. The risks of passive smoking have been only recently understood. Since relatively little research has been done in village households, it is not surprising, therefore, that the indoor air pollution in the rural areas have not received due attention. Another example is the slow recognition in human history of the importance of personal hygiene and dirty water in health. Indeed, in many parts of the world, bathing was actually considered unhealthy. It is unfortunately quite difficult for normal human senses, unaided by expert opinion and scientific evidence, to perceive the scale of many environmental health threats where there are multiple risk factors and delayed consequences.

Despite uncertainties in assessing the impact of indoor air pollution, it is now appearing that in India and other countries where solid fuels are used in simple stoves, indoor air pollutants may rival unsafe water as a cause of ill health. The indoor concentration of pollutants can be reduced by
- improved ventilation in the cooking area;
- better stoves which require less fuel and generate less smoke; and
- clean fuels for cooking.

Improved biomass stoves and improving ventilation are likely to be most cost-effective options for near and mid term. But in the long term, the option is transition to high quality liquid and gas fuels for cooking. In general there is a preference for cleaner fuels, and a transition to clean household fuels comes as a natural consequence of economic development. Such a transition can be accelerated if clean fuels are made available and cheaper.

II
Improved Ventilation

By improving ventilation in kitchens one can reduce the suspended particulate matter (SPM) concentration to which people are exposed. This option, however, may not be available to many poor people living in small and crowded homes. The cost may be high too. Also since improved ventilation does not reduce total SPM emission, it can only be a short-term solution of limited applicability. Yet awareness about the dangers of indoor air pollution should be spread so that women do whatever they can to reduce their exposure. Since smoke causes much discomfort women even when they are unaware of the health impacts are most likely to be already taking these measures. Scope for further improvement must be limited and other policies are needed.

III
Design and Dissemination of Truly Smokeless Stoves in Cost-Effective Manner

Improved smokeless stoves help in two ways, they reduce the fuel needed to cook and consequently reduce the smoke per kilogram of fuel burnt by efficient combustion. Development and dissemination of truly improved stoves on a wide scale has not been easy [Smith 1989]. The Indian improved stove programme, which began in the early 1980s and has focused more on fuel efficiency than smoke reduction, has had some successes, especially in the later years. Much remains to be done,

Table 3: Estimated Annual Premature Deaths from Indoor Air Pollution in India

I	Strong evidence:	3,10,000-4,70,000
	Acute respiratory infections - Age <5 years	
	Chronic obstructive pulmonary disease - women	
	Lung cancer from coal use - women (few in India)	
II	Moderate evidence:	50,000-1,30,000
	Blindness - Women (no death)	
	Perinatal effects (insufficient data for estimate)	
	Tuberculosis - Women	
III	Suggestive evidence:	50,000-1,90,000
	Cardiovascular disease - Women	
	Asthma (few in India)	
Gross total of all three categories:		4,10,000-7,90,000*
Total range chosen for this report:		4,10,000-5,70,000
This consists of the full range of category I plus the low end of the ranges for categories II and III.		
Best estimate:		5,00,000

* Total annual deaths in India for women and children under 5 in these disease categories in the early 1990s: 23,00,000. For all deaths, the Indian total was about 95,00,000.

Source: Smith K 1998.

Table 2: Indian National Burden of Disease

[This table lists disease categories accounting for at least 1 per cent of lost DLYs or 1 per cent deaths and also shows per cent of each disease's burden in children under 5 and its overall female/male ratio.]

Disease Category	DALYs Per Cent	Deaths Per Cent	DALYs in <5 Year[a] Olds[a]	Female/Male[b]
ARI	12	13	80	1.13
Diarrhoea	10	9.8	85	1.1
Perinatal	8.8	7.0	100	1.04
Child cluster	6.4	5.4	83	1.0
TB	4.6	8.0	6.5	0.58
Malnutrition	4.2	1.3	52	1.2
Depression	3.6	0.02	0	1.49
Heart (ischaemic)	3.5	13	~0	0.81
Falls	3.5	0.5	39	0.62
Congenital	2.9	1.8	90	1.02
Maternal	2.6	1.2	0	
Cancer	2.5	5.3	2.7	1.15
Road accidents	2.1	1.9	14	0.4
STD/HIV	1.9	0.7	19	1.87
Fires*	1.9	1.3	14	2.54
Stroke	1.5	4.8	5.3	0.99
Tropical cluster*	1.1	0.4	5.5	0.45
Eye*	1.1	~0	0.3	1.03
Cirrhosis*	1	1.6	4.7	0.46
COLD	1	1.5	5.9	0.79
Suicide	1	1.1	0	0.99
Diabetes*	0.8	1.1	6.2	1.05
Total	78	80	45[c]	1.02[c]

Notes: DALY = Disability-Adjusted Life Year, a measure combining years of lost life from deaths and years of lost healthy life from disease adjusted for their severity's; ARI = Acute Respiratory Infections; STD = Sexually Transmitted Diseases; COLD = Chronic Obstructive Lung Disease.

* Not on the global list of 1 per cent diseases. On the global list, but not on India's, are malaria, war, violence, alcohol (direct effects), and drowning.

[a] Children under 5 are 14 per cent of the national population; [b] Ratio of DALYs lost at all ages; [c] For total national burden.

Source. Murray and Lopez (1996).

however, as only 15 per cent of rural households had adopted improved stoves by 1992. A survey showed that one-third of the ICs installed became non-functional within the first year of installation [Saxena 1997]. Perhaps some important lessons can be drawn from the most successful of the world's improved stove programmes, that of China, which has introduced more than 160 million improved stoves by 1991 covering 70 per cent rural households since the early 1980s [Smith 1993]. The Chinese and Indian experiences are compared in Appendix 3 using relevant information from Smith (1993) and Saxena (1997).

The economics of health improvement from reduction of indoor air pollution can be seen by comparing the relative cost of improving health through improved stoves, with the other available means. It shows that in order to be cost-effective, a smokeless stove needs to have a lifetime of at least 10 years. Figure 2 illustrates the costs of increasing one healthy life-year at different discount rates and stove lifetimes. For example, if a truly smokeless chulha could be introduced at a cost of Rs 2,000 with a lifetime of 15 years, the cost of saving one life-year would be about Rs 1,200 at the social discount rate of 3 per cent. This might be compared, with typical costs for increasing one healthy life-year by other health measures in the country (Appendix 4). The cost of indoor exposure reduction seems to be within the range of the cost associated with other measures to improve health. This is even without considering the other benefits associated with improved stoves, e g, reduction in fuel consumption due to improved fuel efficiency, reduced pressure on local biomass resource, hosehold cleanliness, etc

The existing improved stove programmes in India have typically tried to introduce stoves costing no more than a few hundred rupees. As compared to this, Rs 2,000 may seem excessive. It should be noted, however, that it represents the real effective cost per average stove successfully introduced. In other words, it accounts for all the dissemination costs (research, development, marketing, etc) by the government and other organisations, and the inevitable fraction of stoves that are never used, abandoned, or broken after short periods. Thus, the stove may be priced at Rs 1,000 and still have an effective price of Rs 2,000 each when all the costs are included. Such a price also recognises the importance of introducing stoves that have long lifetimes, i e, are made of sturdy materials and constructed by professional artisans. Only such long-lived stoves can meet the cost-effectiveness criterion above. Only with professionals and sturdy materials can stoves be made that are reliably smokeless over long periods. Experience in such widely divergent societies as rural Nepal and highland central America has shown that even very poor populations are willing and able to participate in the purchase of really effective devices that they believe add value to their households and quality of life. Our improved stove programme needs to be restructured to take care of local needs of the people and designing it scientifically. As in case of China, instead of relying on local artisans and local materials, China's programme has relied on centralised hi-tech manufacture of critical components of combustion chamber for installation at the household into the stove body. While improved stove slower emissions and reduce exposure they do not eliminate it. In the long run, bio-fuels in the rural areas would have to be replaced by cleaner fuels as used in the urban areas and the richer households in some villages.

IV
Increased Access to Clean Fuel

Increased availability of clean fuels such as biogas, solar stoves, kerosene, liquid petroleum gas (LPG) or electricity, etc, can also reduce indoor air pollution. Biogas plants design need to be further improved to make them sustainable with just a few cattle or buffalo. More work is needed to develop reliable cost-effective community designs and evolve effective institutional arrangements to operate them. For making solar cooker more widely acceptable, improvements in the design of the cooke is needed so as to make them less expensive and more convenient to use. Since LPG, propane, butane are in limited supply and involve movement of heavy cylinders thei use is restricted in rural and remote areas They also require expensive stoves. Electri city is also not reliably and economicall available in rural areas. Therefore, kerosen is the next preferred fuel that is clean convenient, controllable and transportabl for cooking. It is well known that its avail ability in the country is not adequate Currently, the average per person use i about 12 liters per year as against th requirement of 50 liters per year if al cooking is done by kerosene. Promotin the use of coal has also been proposed a an effort to reduce the pressure on biomas resources.

Sectoral Fuel Allocations

How much kerosene would be require to eliminate wood fuels? What is the magni tude of the required supply? Can clea fuels penetrate rural markets? Would thi

Table 4: Consumption of Petroleum Products

(Mn tonne

Year	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96
Cooking Fuels						
Kerosene	8.4	8.3	8.5	8.6	8.9	9.2
LPG	2 4	2.6	2 8	3 1	3.4	3.5
Total	10.8	10.9	11.3	11.7	12.3	12.7
Transport Fuels						
High speed diesel	21 1	22.6	24.2	25.8	28.2	32.3
Gasoline	3 55	3 5	3 6	3.8	4.1	4.2
Total	24.5	26 1	27.8	29.6	32.3	36.5
Total of petroleum products	55	56 9	58.9	60.8	65 4	65 7

Source: *Annual Report*, 1996-97, ministry of petroleum and natural gas.

Table 5: Import of Petroleum Products

(000 tonnes, Rs thousand millio

		1990-91	1991-92	1992-93	1993-94	1994-95	1995-9
Cooking fuels							
Kerosene	Quantity (Q)	3340	3367	3463	3946	4240	500
	Value (V)	19.63	18.24	20 08	23.70	24 05	33.2
LPG	Q	329	215	328	410	592	67
	V	1.60	1.48	2.18	2.37	4 16	5 3
Total of cooking fuels	Q	3669	3582	3791	4356	4832	567
	V	21.3	29.7	22.18	26 07	28.23	39.
Transport fuels							
High speed diesel	Q	4680	5329	7159	7555	8637	1285
	V	22.82	26.50	36 91	41 74	43.60	77 6
Total of transport fuel	Q	4707	5353	7159	7555	8715	1294
	V	22.89	26.6	36.91	41 74	44.11	78.2
Total petroleum products	Q	3660	9445	11283	12076	13951	2033
	V	46.60	52.18	63.59	70 41	75.21	125.7

Source: Annual Report, 1996, ministry of petroleum and fertiliser.

Figure 1: Years of Life Lost in India Annually from Indoor Air Pollution Exposures

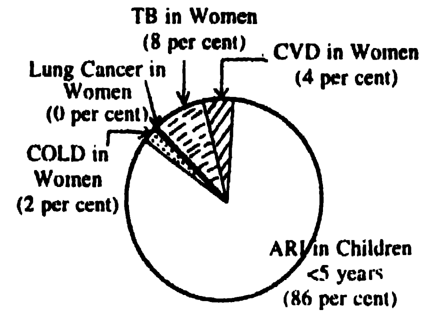
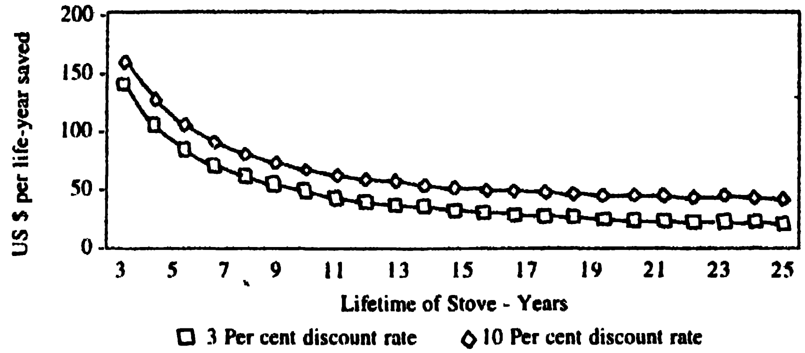


Figure 2: Cost Per Life-Year Saved for an Effective True Smokeless Chula Costing $50



impose a high burden on oil imports? How much oil is consumed by other sectors? What are their shares and growth rates? Is it difficult to provide extra kerosene for cooking from macro-economic consideration or is it just neglects built into allocation policies over decades reflecting gender bias?

An additional 10 mt of kerosene or LPG is required to replace bio-fuels in 50 per cent of households currently using it. This figure has been arrived at assuming combustion efficiency of kerosene and LPG as 40 per cent as compared to 5-10 per cent in case of bio-fuels. The question may arise that whether there is adequate purchasing power in the rural areas to absorb more kerosene? We are looking at kerosene, as LPG is still a cooking fuel only in urban areas. A survey conducted by National Council for Applied Economics Research shows that rural markets are growing and the gap between consumer tastes in rural and urban households are narrowing. The share of rural market in total consumer durable has risen from 54.2 per cent in 1989-90 to 57.9 per cent in 1995-96. The share of high value items (above Rs 6,000) has also risen. VCP and VCR moved from less than 5 per cent of rural share in 1989-90 to 20-30 per cent by 1995-96. Low priced goods like bicycle, transistor/radio, mechanical wristwatch have market share of over 75 per cent in rural areas (*The Economic Times*, 1998). This does not mean that a large fraction of rural population owns these but that they control sizeable overall market share. If there is intra household equity, where their preferences determine household consumption basket, kerosene should certainly find a place. Thus, in the rural area there is purchasing power. These potential consumers with willingness-to-pay can be switched to commercial fuels from non-commercial fuels, and this will release pressure on the poor who cannot afford to buy commercial fuel. Even if 5 per cent to 10 per cent women shift to open market kerosene from fuel wood, there could be less shortage of fuel wood. Moreover, the burden on subsidised kerosene could also reduce.

The fact that adequate kerosene is not available even for households who can afford it reflects the low priority given to the need for cooking fuels by millions of households. Given the adverse health impact described above, it should get as much priority as the other sectors, if not more. It seems that large commitments of 10 to 20 mt of oil use have been made in other sectors such as transport and recently, power sector.

In 1995-96 cooking fuels accounted for only 19.3 per cent of total consumption of petroleum products (Table 4) where as transport fuels accounted for 55.5 per cent (*Annual Report*, 1996-97). The consumption of kerosene in 1995-96 was 12 litres/year per person, approximately one-fifth of the normative requirement (i e, 50 litres/person/year). The projected demand also reflects the same scenario in government policy, as demand growth during 1997 to 2002 is 6 per cent and 6.5 per cent per annum respectively for diesel and gasoline, whereas, for kerosene this is only 4 per cent.

Similar commitments of petroleum products are also made in power sector. Recently, the ministry of petroleum and natural gas has allocated nearly 20 mt of liquid fuel to power sector (CMIE, July 1997). The rate at which petroleum fuels are rising in other sectors show that the country has far less priority on women's health especially in the rural areas.

To fulfil kerosene demand, country would need to examine its import policy for petroleum products to incorporate the demand of the rural households that mostly rely on biomass fuel for cooking.

Table 5 shows that during 1991 to 1996 the diesel imports went up from 4.7 mt to 12.8 mt (63 per cent increase) but the kerosene imports went up from 3.3 to 5 mt only (35 per cent increase). The proportion of kerosene in total import of petroleum products is continuously declining and dropped to 26 per cent in 1995-96 from 42 per cent in 1990-91 in value terms. On the other hand for the same period, proportion of import of diesel in value terms increased from 49 per cent to 62 per cent. Thus, with limited foreign exchange the government imports enough diesel but not kerosene despite very high suppressed demand. It is true that diesel is used for 'productive' purposes from which more revenue can be earned but the kerosene requirement to satisfy all the needs for cooking is not large on a normative basis. As mentioned earlier, another 10-12 million tonnes of clean fuels can replace bio-fuels used inefficiently today for 50 per cent households. When burden of diseases caused due to use of dirty fuels is accounted and when benefits of increased productivity of women are considered, it makes sense to compare them as an example of the priorities. Furthermore, use of diesel for transportation has many negative impacts also, like, cost of air pollution, opportunity cost of land use for roads and parking spaces, etc, which need to be added to its price.

It is clear that there is shortage of commercial fuel for cooking. Even those who can afford to pay for kerosene do not get it because of limited supply. Ironically, it is possible that subsidised kerosene is the reason for its non-availability. First, low or zero trade margins give traders no incentives to keep kerosene in their shops. Secondly, some amount of subsidised kerosene disappears from market and reappears in open market where it sells at a price two to three times (Rs 7 to 10 per litre) of the subsidised price (Rs 2.90 per litre). The government has included kerosene under open general licence (OGL) but private sector has not yet entered in a big way due to problems involved in shipping, storing and transporting, and because it is a new business for them. The

reasons for market failures need to be understood and addressed.

Efforts should be made to increase per capita availability of kerosene at least in the rural areas, and we might be able to reduce burden of diseases suffered by majority of women and children. Of course, kerosene may penetrate slowly and not overnight, say in 5 to 10 years. This gradual increase will give time to adjust even with other interventions to reduce indoor air pollution like technologies for procesing renewable biomass into other clean burning fuels. The goal should be to use gaseous and liquid fuels in the stoves, which are clean.

Substitution of Household Biomass Fuels with Coal

In a well-meaning effort to reduce the pressure on forests and other biomass resources by household fuel demands, it has been proposed to promote the substitution of coal as a household fuel. Although such a plan has some potential benefits, great caution should be exercised because of the health risk involved. Extensive recent researches in China and South Africa and older studies in the UK and elsewhere demonstrates quite clearly that coal use by household's leads to dramatic health problems. For example, China has the highest lung cancer rates in the world for non-smoking women because of the extensive use of household coal. Although it is possible to wash and process raw coal into cleaner-burning forms, it is not clear that sufficiently clean burning can be achieved at a cost competitive with the already well established cleaner fossil fuels, kerosene and LPG.

V
Conclusions

The pollutants released due to use of bio-fuels for cooking in traditional stoves cause serious health problems like acute respiratory infections, chronic obstructive lung disease, lung cancer, tuberculosis, etc. Women and children below five years of age are most affected, as they are regularly and severely exposed. There is a need to pay more attention to the plight of hundreds and millions of women and children living daily with exposure to indoor air pollution. Many actions are required to address this air pollution. A short- and medium-term solution is to design and disseminate efficient smokeless stoves in a cost-effective manner. Effective price of such a successfully installed stove is approximate Rs 2,000 with a lifetime of 15 years, which may seem to be very high as compared to stoves currently, installed under government programmes. But it should be noted that these less expensive stoves have a high failure rate and a very small lifetime, and do not offer good efficiency.

While improved stoves reduce the pollution exposure, they do not eliminate it. In the long term clean fuels would be needed not only to reduce pollution but also to provide convenient and controllable fuels by increasing availability of clean fuels in rural and remote areas. Since LPG, propane, butane are in limited supply and require heavy initial investment for bottling plants and cylinders, and availability of electricity is not reliable and economical in the rural areas, next best alternative is kerosene. There is a need to change the petroleum product policy in a manner to make kerosene available, to the people who are willing and are able to pay for it, in the open market at an affordable price. Government should reformulate its policy to make parallel marketing system for kerosene effective and successful. This will reduce the burden of diseases suffered by a large number of women and children, and will also ease the pressure on forests and other bio-fuel resources. When the segment, which can pay, is dealt with the poor who cannot afford to buy commercial fuels may have less pressure. More surveys and analytical work is needed to devise cost effective strategies and comparison of alternatives. High occurrence of indoor air pollution signifies inequalities in environmental policies, energy policies and health policies.

Appendix 1

Wood-smoke exposure and risk for obstructive airways disease (OAD): A study conducted at Bogota, Colombia showed that among elderly women of low socio-economic status, wood-smoke exposure is associated with the development of OAD and may help explain around 50 per cent of all OAD cases. However, the role of passive smoking remains to be clarified.

Cooking smoke increases the risk of acute respiratory infection (ARI) in Children: The survey result of National Family Health Survey (NFHS) of India 1992-93 shows that one in every fifteen children under age three suffers from ARI in India. At the same time, about three-quarters of households in the survey reported using wood or animal dung as their main source of energy for cooking. Children under age three living in households that use wood or animal dung as their primary source of cooking fuel have almost one-third higher risk of ARI than the children living in households that use cleaner fuel, even after controlling for a number of other variables.

Bio-mass fuel and blindness: Analysis of the NFHS data showed that adults over 30 years living in households using biomass fuel had about 30 per cent more partial blindness than those living in households using cleaner fuels. There was no statistically significant difference for complete blindness, however. Cataracts are thought to be caused by cumulative damage to the lens of the eye, which can occur through exposure to cigarette smoke or sunlight, and drying due to episodes of diarrhoea, among other factors. In addition, however, other causes of blindness may have links to biomass smoke. Trachoma, for example, is caused by infection of the eye, which might be enhanced if people are rubbing their eyes due to irritation by smoke. Conjunctivitis, another source of blindness, is thought to result from long-term irritation such as might occur due to the aldehydes, acrolein, and other irritation such as might occur due to the aldehydes, acrolein, and other irritating chemicals in biomass smoke.

Tuberculosis: Adults over 30 years living in biomass households had 170 per cent higher TB rates than those in cleaner households. This is an unexpected finding, which, if confirmed, would have major public health implications because of the terrible toll of TB in India and elsewhere in the developing world.

Sources:

Dennis, B J (1997): 'Wood Smoke Exposure and Risk for Obstructive Airways Disease among Women', *Chest*, (109)1, p 115.

Mishra, V et al (1997): 'Effects of Cooking Smoke on Prevalence of Blindness in India', working papers, population series # 92, Honolulu; East West Centre.

–(1994)'Effects of Cooking Smoke on Prevalence of Tuberculosis in India', working papers, population series # 92, Honolulu: East West Centre.

Appendix 2: Access to Clean Fuels for Cooking – A Human Development Indicator?

Air pollutants due to bio-fuels are largely released directly where the people are inside or near households at mealtimes every day. Therefore, even with modest emission levels, the actual exposure to people is significant in many millions of households around the world.

Several health effects are suspected: respiratory infections in children, chronic lung diseases and lung cancer in adults, and adverse pregnancy outcomes, such as low birth-weight and stillbirth, for women exposed during pregnancy.

Acute respiratory infections (ARI), often as pneumonia, are the chief cause of death of children under 5 years and the largest single cause of lost life years in the world as a whole. Together, the complex of ill-health composed of the inter-related problems of ARI, diarrhoea, and the childhood diseases such as measles, are the main reason that developing-country children under 5 bear about half the total burden of ill-health in the world, although only making up about 10 per cent of the population.

A recent study in Colombia found that women cooking over open fires had almost four times more chronic lung diseas compared to those cooking in other fashions. If applicable to the population as a whole, about half of chronic lung disease in Colombian women could be due to such exposures. A study in the Gambia found that infants who were exposed to smoke by being carried on their mothers' backs during cooking were nerly 3 times more likely to develop

significant cases of acute respiratory infection. In the same community, girls under 5 who were present during cooking had about six times more risk of this disease than those who were not in the cooking house. These risks were determined after correcting for the effects of socio-economic status, nutrition, and other factors known to affect disease rates.

Therefore, to reduce indoor pollutant exposures to acceptable level access to clean fuels is required for the health of women and children. Other methods are, efficient stoves, enhanced ventilation etc, but they are short-term solutions. The use of clean fuel is the most effective solution and long-term solution. Should access to clean fuels for cooking not be used as indicator for human development?

Based on: Jyoti Parikh (1996): 'Poverty Environment and Development Nexus', Human Development Report, UNDP.

Appendix 4: Costs of Avoiding Loss of One Healthy Life-Year in India

- Measles vaccination: $15-20
- Food supplement for pregnant women: $20-30
- Food supplement to children under 5:$60-70
- Tobacco and alcohol control: $40-50
- Clean water: $50-150
- Basic care for AIDS patients: $200-400
- Leukemia treatment: $1,000
- Environmental control for Dengue: $2,000
- Improved chulha: $30

Note: The costs are only estimates. They considered the cost of the entire programme for the probability that risk is reduced by one life-year.

Source: World Bank 1993.

Appendix 3

CHINESE IMPROVED COOK-STOVE PROGRAMME (ICP) vs INDIAN ICP

Chinese Programme	Indian Programme
Initiated in early 1980s and covered almost 70 per cent of rural households by 1991 without any direct subsidy by the government.	Initiated in early 1980s and covered 15 per cent rural households by 1992. The ICs were highly subsidised by the government.
Strategies	
1 Work in the best areas first. The programme should first be initiated in those areas where people show their desire for improved cook-stoves (ICs). The selection of site was made on the basis of the country's desire to become a pilot county for the ICs programme along with other considerations such as fuel shortages, and managerial, financial, technical and raw material resource availability in the county.	1 The political and bureaucratic pressures have led to attempts to implement the programme extensively from the start. Therefore, in some areas where people were not willing to accept or were not ready to manage ICs were provided ICs, as well as in many areas people those were ready and have desire for ICs were not able to receive it.
2 Research and development was directed mainly towards design and modification of stoves to match local conditions of fuel and cooking/heating needs.	2 Local people's requirements were not taken into consideration.
3 Regular, systematic and consistent monitoring and evaluation has been an integral part of Chinese Improved Stove Programme since its inception.	3 Monitoring and evaluation is not there.
4 The government contribution is much smaller (about 15 per cent) and restricted mainly to training, administration and promotion.	4 Government contribution is about 50 per cent.
5 Flow of money between the bureaucratic levels is minimal. The largest single flow that can be transmitted in a year as part of centre and county contract would seem to be $ 3,000 only.	5 In India flow of money is huge, i e, US $ 2,50,000 per year from centre to state nodal agencies and on down line.
6 Centralised production of the critical parts of the combustion chamber for reliable long-term high efficiency performance of the stoves.	6 Efficiency and reliability of stoves are very low.

Note: Summarised by the authors from Smith (1993) and Saxena (1997).

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The Future of Anthropology

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This paper submits that practical concerns have overtaken the theoretical in contemporary anthropology, especially in India. A perilous consequence of this trend is that instead of illuminating the functioning and dynamics of society and culture in particular and general terms, it confines itself to the question of policy prescription. By directing their energies to the 'issues of usefulness', anthropologists have come to think that the future survival of anthropology is incumbent upon its immediate market value. The future of anthropology can be enhanced, instead, by giving primacy to an interpretive understanding of societies and cultures, thereby making comments on existing policies for development and social justice more perceptive and relevant.

THE future of their discipline, or one of its offshoots, has seriously concerned the anthropologists. Several seminars and workshops have been held under the aegis of 'retrospect and prospect' or the 'relevance of anthropology', where thoughts of the possible futures of our subject have figured. One of the topics of addresses and discussions in the centenary meeting of the Royal Anthropological Institute of Great Britain and Ireland (RAI), the proceedings of which appeared in *Man* in 1944, was 'The Future of Anthropology'.[1] Murray Leaf's *Frontiers of Anthropology*, a book of 1974, carried a chapter in the end, on the 'anthropology of 2000' (pp 311-24). The statement – 'Anthropology has a notorious past, dismal present, and uncertain future' – broadly summarises our collective anxiety about the integrity of our discipline and its survival [Srivastava 1986]. In other words, regardless of the time and the progress of anthropology, its professionals have often pondered over its future

Questions of the future begin zooming large when a culturally-constructed time period is to be replaced by another. One may imagine how bold and big this question would be when a century is to be replaced. In the 1990s, many contributions have appeared on the future of anthropology: some important ones are by Hart (1990), Kahn (1990), Sponsel (1990), Firth (1992), Grimshaw and Hart (1993), and Giddens (1996). None of these writers even hints that anthropology is devoid of a future. That we are contemplating the future itself strikes a chord of optimism: there is a future *of*, *for*, and *in* anthropology. But, where does it lie? In theory or policy prescriptions, or in a better, evolving relationship between the two? In making the discipline frontierless, unbounded, or in a precise delineation of its aims? What is our vision of future for which anthropology should be made to work? [Hart 1990: 14; Firth 1992: 208].

Why does the question of their discipline's future worry anthropologists? To my knowledge, such a question is generally not raised in other subjects.[2] Is the crisis in anthropology, wherein storms the debate about its future, imaginary? Is it simply a panic button so that the quality of research improves with continued introspection? In a strongly-worded article, Keith Hart (1990:14) says that British anthropologists are 'overspecialised, fragmented, alienated from the society in which the majority of people live,' and they lack 'any vision of [their] own or humanity's future'. This has also been the conclusion of many observers of national anthropologies [Pathy 1981; Gerholm and Hannerz 1982; Hastrup 1987; Mahajan and Srivastava 1978].

Today, anthropology discovers itself in a multicultural world of reflexivity which 'demands new forms of inventiveness and subtlety' [Clifford 1986:23]. We are sceptical of and wish to enquire into 'all grounds of authority, assumption, or convention' [Fischer 1986: 194].[3] Knowledge-producers in the contemporary world are not just academic professionals. Journalists, media persons, tele producers, film makers, and even bureaucrats, are concerned with all those social issues on which we anthropologists claimed intellectual monopoly some years ago. A programme, for instance, on the Yanomamo Indians made and telecast by Discovery Channel, is not only worth thousands of words, but reaches millions of cross-cultural viewers [refer Giddens 1996: 121]. Today, anthropology finds itself in the midst of myriad theoretical perspectives, the contest between them is not like the blood-feud which characterised the relation between the descent and the alliance theorists in British anthropology. Contesting paradigms co-exist today with exemplary tolerance of another's vantage point. These are the times of post-modernity, post-structuralism, post-colonialism, post-savage, post-positivism; or as Geertz (1998:69) says, of 'post-everything'. Anthropology faces a set of new challenges in this world.

Against the background of the contemporary practice, this paper outlines the conditions which will affect the future of anthropology. Not offered here are the tasks for the 21st century. Unless adequate steps are taken, the already existent crises of ecosystem, resources, society and culture are bound to escalate with the passage of time, and the anthropological researches will be expected to understand the genesis of these crises and suggest remedies. The practising anthropologists are hopeful about the contribution their discipline can make to ameliorate human condition. Marketability of anthropological skills (especially fieldwork) has been recognised by development and welfare organisations, but the full potentiality of the subject is yet to be tapped.

So far, a study of the impact of anthropology on its learners has not been carried out, but I learnt from my students that anthropology brought about a marked difference in their orientation to life.[4] They developed a higher degree of sensitivity to other human beings and their problems, besides trying to understand the 'other' (a fellow being, a community, a group) in holistic terms. Some Indian bureaucrats, who read anthropology as one of the subjects for the civil services examination, told me about the profound impact that anthropology made on them. In their actual workings, they have become comparative, analytical, field-oriented, and contextual. Now they understand human predicaments in a better perspective.[5] Yet, anthropology is not the first subject-priority of a college student who casts his eyes on courses which promise him a lucrative profession.[6]

At the outset, I submit that the future of anthropology will depend upon its conception that we hold and reproduce didactically. If its vision is of a discipline

without frontiers, then we have already started ringing its death knell. Further, anthropology's future is conditioned by the sound analytical and theoretical perspectives that we are able to generate. We cannot sustain it by an array of policy suggestions, the long list of pleas, viz. 'what should be done?' A dialectical relationship exists between theoretical conclusions and the areas of application. In it rests the strength of anthropology. We also note with concern the woeful decline in the quality of fieldwork (especially by Indian anthropologists and neophytes) and in the sophistication of analysis.

II

In 1978, six young anthropologists from the University of Delhi, three each from physical and social anthropology, decided to launch a journal with their pooled resources titled *Spectra of Anthropological Progress*. Its acronym *SAP* acquired popularity in academic circles in years to roll. These men were crystal clear about their aim. They did not want to merely add another volume to gather dust on the library shelves. They were deeply concerned with the question of *quo vadis*: whither goeth anthropology?[7]

The inaugural issue of *SAP* (1978: i-iii) carried a brief editorial which spelled out the direction anthropology had taken, its overspecialisation, concluding that the specialised research did not quite connect itself with the central aims of anthropology. Twenty years later, Bhattacharya (1999: 24-5) observed that the 'distancing of archaeology from anthropology has now gone to the ultimate. It is a consequence of this that archaeologists are now trying to have their own agenda of ethnology which need not concern itself with cultural themes.' The likelihood of unconnected and ceaseless specialisations existed in anthropology, because, to begin with, it dealt with two facts – the biological and the cultural – and each one of them could become the pivot of a separate discipline with its distinct methodology, terminological apparatus, and epistemology. The relation of the observer with the observed is bound to be different in a biological science in contrast to a socio-cultural discipline.[8]

The *SAP* editors did not denigrate the tendency of overspecialisation, seeing it as an index of the progress and development of a subject. However, they advised the specialists to think carefully of their grounding in the parent discipline and relate their specialisation to it. Otherwise, the specialist's work would become alien to the anthropological concerns. Moreover, he would be marginalised in other disciplines he intends to venture into. If this differentiation of the discipline is permitted to go unchecked, with no attempt to integrate the new branches with the goal of anthropology, the danger is that the specialisations will fall apart. The Spencerian proposition – 'Integration compensates for differentiation of parts' – asserts the truism. Anthropologists should devote themselves to the task of integrating their discipline. Each stream of differentiation must relate to the central aims of anthropology. If we proceed in this manner, a higher differentiation of the discipline will inevitably imply a higher degree of integration.

A discipline should not be allowed to become pigeon-holed, for this would render intense inbreeding, thus lowering its creativity and scholarship and eventually, making it sterile. At the same time, let it not become so porous that, as in our case, almost every biological, sociological, or cultural study of humans could claim a place in anthropology. We already know of health scientists, historians, experts in foreign affairs, journalists, film makers, and many others, who not only call themselves anthropologists, but compete with hard-core anthropologists for scarce funds for research, tenurial positions, chairs of committees, awards, etc.[9] Osmosis is creative; flooding is destructive. We may borrow theories and techniques of analysis from other disciplines to understand our data better or to illuminate our concerns. But the crises, which the *SAP* editors called the 'identity crises', surface when a specialisation of some other subject is placed under the rubric of anthropology by an enthusiast without its relationship with the principal anthropological concerns being properly worked out.

It is not only with respect to physical anthropology that social anthropologists, or vice versa, find it difficult to maintain academic communication and to undertake collaborative research, but within social (or physical) anthropology, a number of branches have emerged which increasingly emphasise their separation. Each of these, what I would call, 'special anthropologies' (such as linguistic anthropology, medical anthropology, ecological anthropology, demographic anthropology, etc), which acquired prominence in the second half of the 20th century, interacts with another full-fledged discipline having its own history and preoccupations. Linguistic anthropology, for instance, has an intimate connection with linguistics, in the same way as is the proximity of ethnomusicology to the science of music.

Closeness to other disciplines applies to the main branches of anthropology as well; for example, the British social anthropology is considered closer to French sociology; and cultural anthropology, the American variant, to history and folklore. However, not all the practitioners of social or cultural anthropology assumed that their subject was a branch of humanities or one of the specialisations of the arts. Radcliffe-Brown (1948), the chief architect of British social anthropology, ardently believed that his subject was a natural science of society. Similarly, the American neo-evolutionist, Leslie White (1943) considered the natural science of culture as culturology, a term most dear to him. But these analogies between social or cultural anthropology on the one hand and natural science on the other, were based on an assumed isomorphism of methods and techniques. The methodology employed for the study of natural systems was extendible to social systems.[10]

The idea that social or cultural anthropology was a science of society or culture, or both as Kroeber's (1948:5) collocation socio-cultural anthropology suggested, did not imply its active interaction with biological or natural sciences. None of the campaigners of the scientific status of social or cultural anthropology ever thought of working out its relationship with physical anthropology (or archaeology), or of planning a study in which these branches could be meaningfully integrated. Radcliffe-Brown (1952) and Evans-Pritchard (1951) wrote extensively on the nature of social anthropology and the relation it bore with psychology, history, and sociology, but never chose to examine its kinship with physical anthropology or archaeology.[11]

It may be suggested that the relationship between social and physical anthropology in the British tradition was almost like that of the kinspersons who stood back to back. But, it did not imply any hostility or competition between them. Social and physical anthropology (and also archaeology) were non-interacting disciplines but sharing the same hearth. Social anthropology forged its alliance with sociology and history, whilst physical anthropology (which in Britain is called biological anthropology) shared common concerns with medicine and other biological sciences.[12] Anthropology, therefore, can be conceptualised as a myriad of disciplines having close contact with other independent subjects, rather than amongst themselves.

The pattern established in Britain at the beginning of this century has continued till date. Separate departments of physical,

social, and archaeological anthropology exist in British universities, and are placed under the faculty of anthropology. Interaction between these departments is negligible. Each one of them is almost like a *gemeinschaft*. Anthropology for the British is either biological anthropology, or social anthropology, or archaeology. The issue of its integration does not worry them. Nor do they engage themselves with the question of what 'anthropological' part in physical anthropology is homologous to the 'anthropological' quiddity in social anthropology? The British pattern is replicated in many other universities of the world. At the level of the work, the micro-studies take precedence over the philosophical discussions about a discipline's total identity, integration, and the boundary-maintaining mechanisms.

The American anthropology began with its division into physical anthropology and ethnology, the latter being further segmented into cultural anthropology, linguistic anthropology, and prehistoric archaeology. Physical anthropology studied bio-genetic facts, while culture in all its manifestations, and in spatio-temporal dimensions, was the key concept in ethnology. Although not clear in the beginning on how biological and cultural facts could be meaningfully integrated in a study, American anthropology nevertheless furthered its holistic conception. The textbook definition (almost like a 'holy litany') that anthropology is the 'study of man in all his aspects in time and space', seems to me an American view. The founders of professional anthropology in America insisted on an integrated anthropology. We are reminded of Franz Boas (1948) for whom fieldwork meant the collection of socio-cultural, archaeological, linguistic, and biological facts of a given people. This was the encyclopaedic approach to anthropology which is amply reflected in the American textbooks. Some American scholars have discussed the issue of the integration of anthropology at the level of the syllabuses, teaching and research seminars, and common projects and investigations [Tax 1956; Godelier 1974; Leaf 1974, 1979]. But they were all conscious of the fact that the subject was fast fragmenting. Their concern can be estimated from Eric Wolf's aptly-titled article: 'They divide and subdivide and call it anthropology' (*New York Times*, November 30, 1980).

Because of these divergent specialisations, which are strange bedfellows, anthropology has become a 'dilettante's discipline', including in its scope 'literally anything from lemur feet to shadow plays' [Rabinow 1977:3].[13] In a trenchant criticism of overspecialisation, Needham (1970:46) envisaged an 'iridescent metamorphosis' of anthropology. The field might be redistributed among many other disciplines.[14] Many authors have reconciled to the academic disintegration of anthropology and see their works as part of the 'metamorphosis' of which Needham spoke.[15] Anthropology today is a 'group of subjects'.[16]

III

Integration of anthropology has the following facets: first, certain aspects of human existence can be fully comprehended when equal attention is given to its biological and socio-cultural dimensions. Some 'special anthropologies' lie at the confluence of biological and socio-cultural anthropology; for example, ecological anthropology, demographic anthropology, medical anthropology, and the anthropology of development. Other anthropologies are preeminently biological, but use several socio-cultural factors and indices; anthropology of growth and physiological anthropology may be cited as examples. Even in highly technical fields such as foetal anthropology, one cannot ignore the political economy of health and various declarations of the international organisations (like UNICEF) [Chandra 1990].

In those specialisations which are at the interface, a restriction of analysis to either fact (biological or socio-cultural) is bound to be myopic. Medical anthropologists know full well that if illness is cultural, disease is a pathological concept. Pain is both a culturally-constructed reality and also, biologically inscribed on the body. The first lesson a student learns is that medical anthropology is a bio-cultural discipline. We analyse the medical system as a biological system and as a socio-cultural system, which we further break down, following the systemic approach, into social system and cultural system. In the integration of the three subsystems of the medical system can one locate the spirit of medical anthropology [Forter and Anderson 1978; for similar argument on Indian material see Joshi and Mahajan 1990, Bhasin and Srivastava 1991].

A similar argument can be adduced for demographic and ecological anthropologies. Some of us may be sceptical of the place I have given to the anthropology of development, for this specialisation is dominated by social anthropologists. Those who think that development has nothing to do with physical anthropology are mistaken because the issue of the biological survival of people is of utmost importance. We have a significant literature on the diseases caused by development, and how the health of the natives was jeopardised as a consequence of the measures the planners and development specialists thought were ameliorative [Kunitz 1994]. For depopulating tribes, the health-related programmes score priority over those dealing with cultural matters. Development is a bio-cultural phenomenon, and for the future survival of anthropology, this notion is crucial.

Besides this, another way to integrate anthropology is to generate a paradigm which can explain both the biological and cultural facts. In one such attempt, Mahajan and I (1978) examined the possibility of using dialectical materialism to integrate anthropology. Jan Wind suggested the use of cybernetics for a similar purpose (Personal communication, December 12, 1978). Neo-Darwinian philosophical traditions could also be explored [Ashley Montagu 1960, 1981]. Forde (1948) argued that ecology can unite physical with social anthropology. Howsoever promising these theoretical insights are, they have not become popular in our subject. Whatever integration is visible it is at the level of studies which require a knowledge of both physical and socio-cultural anthropology.

IV

One of the consequences of the American encyclopaedic approach is that anthropology has gradually become more and more porous and spongy, offering a respectable place to people from varied disciplines, but losing its identity in the process.[17] What has really been detrimental to its progress is the oft-repeated statement, pronounced with boastfulness and pomposity, that it is a subject without frontiers, without boundaries. The protagonists of this view present a catalogue of different anthropologies and show several empty shelves to the academic world where more and more specialisations could be placed.[18] We may beam with satisfaction on seeing a huge list of anthropologies, but in this process we have eroded the concerns of the discipline. The future of anthropology depends upon these pivotal concerns, and not on the unwieldy list of its specialisations.

Often, a question like 'what is anthropological' in 'economic anthropology', or in 'medical anthropology', or in any other 'special anthropology', is asked. We want to know the distinctions between collateral disciplines or interests – for instance, between political science, political sociology, political philosophy, and political

anthropology. Engaging debates ensue on whether the study of economic systems of tribes and peasants be termed 'economic anthropology' or 'anthropological economics'. Such taxonomic debates are in other specialisations as well. Some scholars believe that if we opt for titles such as 'anthropological economics', or 'anthropology of development', or 'ethnolinguistics', then we emphasise in them the anthropological content more than that of the other discipline with which they interact.

Whether or not we accept the suggestion about a proper nomenclature of the discipline or its branch, there is no doubt that such borderline or inter-disciplinary enterprises are required to interact with other disciplines. The student of 'anthropological economics' or 'economic anthropology' needs to acquire an arduous competence in economic theory and techniques of analysis. In a similar vein, an anthropologist of transcultural psychiatry is expected to be familiar with western psychiatry, its modes of treatment, and its concept of man. In such disciplines, the anthropologist has to do an extra labour – to gain competence in another subject. Dalton remarked that 'economic anthropologists' suffer from 'nervous inferiority' while corresponding their ideas with hard-core economists who tend to look down upon their counterparts in anthropology [Dalton 1971: 30]. Similar observations can be culled from the practitioners of other borderline anthropologies who have to interact regularly with other closely allied subjects. One would like to read a detailed account of the professional experiences of a medical or physiological anthropologist working in a hospital or medical college, and trying to justify his place amidst those who might consider such positions as sheer appendages, easily dispensable.[19]

Needham (1970:40) called an anthropologist's encounter with the other discipline(s) 'awkward'. It is bound to generate 'nervous inferiority' in him unless he stands on the steady feet of his discipline, is committed to intellectual osmosis, and constantly reminds himself of his goals and purposes. If he is an 'economic anthropologist', he judiciously and critically examines the propositions of economics to determine their suitability in understanding his data. He does not use his data to illuminate or support the economic theory. When his aims are lopsided, his encounter with economics will become 'awkward' rather than fruitful, and he will suffer from 'nervous inferiority' in relation to the economist, rather than becoming a 'coparcener' in the production of alternative perspectives on society.

All this boils down to our own conception of anthropology. If a study of what different anthropologists mean by the subject is conducted, we shall come across highly divergent opinions. For many, anthropology *will be* what they *do*: the practice will define the subject and not the other way round. Some will subscribe to the encyclopaedic notion: there is anthropology in everything and everything can be studied anthropologically. Rarely do we ask: What is 'anthropological' in what I do?

V

Problems for an anthropologist's work 'can be found everywhere human beings are in communication' [Firth 1992:211], wherever groups are formed and sustained. The anthropologist's laboratory is the entire mankind; the way in which people structure the reality around them, is what he studies. The human universes are not 'museumified' entities, static, neatly-kept and catalogued. They are perpetually changing. Those orders (and institutions) which men themselves proudly created at one time are rejected by them at another time. Taxonomies are challenged; the catalogues need to be constantly updated. Human beings have tremendous capacity to perfect themselves. This process is however punctuated with crises – with contradictions and conflicts. Change is ceaselessly occurring; it is imperceptible and needs to be constructed. Geertz (1995:4) writes: 'Change, apparently, is not a parade that can be watched as it passes.'

The anthropologist did (and does) many things with societies and cultures. In the formative era, he studied the origin of institutions, customs, groups and collectivities, and the stages through which they were believed to have passed. Then, he compiled the detailed accounts of the past of these societies by focusing on the 'memory culture' of his respondents. How social institutions had diffused from the centre of their origin, or from one society to another, greatly interested him. In the wake of the repudiation of earlier pseudo-historical approaches and psychological reductionism, and the aimless documentation of cultural traits, came the much celebrated functional approach. With this, anthropology became a synchronic study, of 'here and now'. The criticism of functionalism revived many earlier approaches. The French became interested in the working of the human mind and unravelling its underlying structure. Their contemporaries in America, those who became popular as cognitive anthropologists, intended to study culture by getting into the heads of its bearers. Some French and American scholars applied the Marxian approach to the superstructure of society. Network analysis, transactionalism, modern variants of structuralism, feminism, reflexivity, interpretivism, have been other corrective alternatives.

The aforementioned approaches and their several kindred variations, known by different technical names, barring those which were conjectural, co-exist in contemporary anthropology. But, the most rallying is around the one which is concerned with meaning. Some of its advocates derive their intellectual authority from Weberian sociology and its further development in the hermeneutical tradition. In a nutshell, the contemporary anthropologists do the following. They conduct a lengthy fieldwork with a 'community' of people, far-away or nearer home.[20] During the course of study, they are 'hued' by the 'object' of study.[21] From this experience is born the ethnography.

Anthropology is a 'sceptical study' [Firth 1992:210]. It does not take anything for granted. Whether acknowledged or not, we begin with the Durkheimian rule: 'I do not know a social fact unless I have studied it' [Durkheim 1938]. Our aim is to understand the plexus of meanings people attribute to their thoughts and action. Alongside, we unravel those meanings and interconnections of institutions of which their creators may be unaware. We keep a distinction between the perspectives and analyses of the actor and the observer.

The anthropologist is an empiricist ('world-observer'), an interpreter ('world-describer'), a comparativist ('world-comparer'), and a futurist ('world-imaginer'), whose cosmic ambition is to know about the human society as a whole.[22] His aim is pre-eminently academic: to interpret and explain. It is not to delve in the charters of policy prescriptions.[23] Today, especially in India, many anthropologists are solely concerned with the issues of policy, churning out the agendas of action. Perhaps they feel that in this market-oriented world they have to be utilitarian. They try to prove their Darwinian fitness in the academic world as well as in the market-society by formulating hypothetical programmes for the betterment of human beings. Their comments on policies, lists of pleas, designs of action, scarcely rise above the commonplace.[24]

None of the scholars concerned with the future of anthropology has argued against action anthropology, putting knowledge

to real and concrete use.[25] Giddens (1996:126) writes: "Anthropology must be ready to contest unjust systems of domination, along the way seeking to decide what 'injustice' actually is, and be prepared to bring potentially controversial issues to light". For Hart (1990:14): "Anthropology is 'for' making a better, more democratic world for everyone". To achieve this, we should be 'politically' and 'morally' engaged with social problems. Our vision of future is of greater freedom and equality of human beings, both as a right and policy, and anthropology must work towards their achievement. Inspiration for applied work, Hart thinks, could be drawn from Leach's lectures published as *A Runaway World*? where he argued that anthropology could be used for resolving crises of the contemporary world. He also suggested that we should try to spread the anthropological vision amongst the mass audience.

Sponsel (1990) argues for greater involvement of anthropologists with the people they study. Grimshaw and Hart (1993:44) say that the 'resolution to anthropology's dilemma' requires new 'patterns of social engagement'. For Ingold (1994:xviii), anthropology is a 'science of engagement'. The 'subjects' of our research are not 'objects'; they are fellow beings. One of our duties is to take overt action to defend human rights. Cultural relativism is simply a 'frame of mind', a methodological tool. It does not imply, or should not be confused with, ethical relativism. The topic of universal human values and basic needs has become central to contemporary anthropology [Hatch 1983; Scupin and DeCorse 1995]. None should starve, none should be inflicted with physical or psychic torture, none should be stripped of basic human rights and needs, are some examples of universal values. The anthropologist should render his firm commitment to them in academic as well as practical terms. Firth's summary expresses it well: "[The] anthropologists must have a social awareness, a social conscience, some degree of commitment to the people among whom they work. Locally, an anthropologist can sometimes defend the peoples' interests against bureaucratic ignorance, the rapacity of salesmen or the arrogance of developers" [Firth 1992: 219]. The role of anthropology in exposing various myths which perpetrate inequality in society is well acclaimed. And, famously known is its contribution in planning and executing development.

The applied role will definitely condition anthropology's future, but the list of suggestions, policy prescriptions, must entail from a rigorously conducted study in which the focus is on understanding. Theoretical and applied researches are two sides of the same coin: 'knowledge for practice' and 'practice for knowledge' are intimately connected [Srivastava 1990: 316]. Before peoples' interests are defended, we should acquire a thorough knowledge of the conditions which breed rapacious salespersons or arrogant developers. Understanding and interpretation are placed before action, advocacy, and activism. A good anthropology is one which yields sound, detailed, and convincing knowledge of a society; and from this follows a culturally-rooted, endogenous, and holistic plan of development.

The social responsibility of the anthropologist has increased manifold presently. It is bound to enlarge further. Anthropology began in the mid-19th century as the evolutionary study of the entire human society. As it grew in time and space, especially with the addition of ethnology sections in museums, it progressively became a mode of producing knowledge of the 'exotic other', the 'primitive society'. By the time the term 'social anthropology' was invented for the Liverpool Chair founded in 1908 for James Frazer, the 'intellectual object' of anthropology – the savage, the pre-literate, the simple, the non-western – had been fully found. Gough (1968:403) writes: 'most of our fieldwork was carried out in societies that had been conquered by our own government'. The we-they distinction, or the distinction of the self and the other, was the pith of the anthropological work: '...anthropological knowledge came to be a map of difference, of alterity' [Das 1995:3]. That the 'they' was qualitatively different from the 'we' constituted the discourse. Anthropologists wrote what they thought was right, proper, and just, on and about the primitives, who were mute, who did not answer back [Giddens 1996: 121-2; Geertz 1998: 72]. The monographs thus produced were for the literate, white, western public.

Overtime, as a result of culture contact with modern societies, the primitives have been de-primitivised. No more are they 'they' in pristine terms, but are gradually assimilated with the 'we' [Geertz 1998]. As globalisation progresses apace, the difference between the 'we' and the 'they' narrows down tremendously. The erstwhile primitives now read and write; question the inquisitive ethnographer on the purpose of his study and wish to share the results of his enquiries; read monographs to discover their past moorings and also detect grave errors made by the anthropologist in understanding their culture. The staunchest critics of ethnographic writings on a society are now its 'literate' people. They answer back and interrogate their ethnographers.[26] The latter has to be cautious about the veracity of ethnographic details he collects. Furthermore, the 'natives' now study their own societies where they enmesh their experiences of being a native with an objective project. Native anthropology, or autoethnography, as it is designated, brings with it its own commitments and values [Srivastava 1995b]. Anthropology is now produced in a different set of social conditions. It has to be far more reflective and humanistic.

This changed scenario does not suggest that we become 'subjective' in our approach. Rather, we have to combine the requirements of a dispassionate study with an unflinching commitment to universal human values and rights. Our methodology adheres to the principle of objectivity, whilst our 'practical anthropology' (to borrow Malinowski's term) does not compromise on the agenda of human welfare; it is value-loaded.[27] It is wrong to assume that if we 'side' with particular arguments regarding human condition, then we tend to lose our objectivity. To recall Cresswell (1968:411-2): 'A physicist can fulfil his sense of social responsibility by speaking out, for instance, against the use that politicians and the military make of the atom bomb he has made possible, without affecting the laws describing the behaviour of atoms and molecules'. In a similar way, we endeavour to understand human society as objectively as possible, but speak out against all those social contexts where human rights are abrogated, where values of equality are suppressed, where injustice prevails.

The people whom we study, wherever they live, are no longer hidden, forgotten, lost, or cloistered.[28] No more is the tribal society 'isolated', a 'complete society', an 'anthropological whole'. Not only the national but also the international economic systems affect the micro-societies. The genesis of rural poverty can be traced to the unjust social and economic system of the international order. Ethnicity has become a transnational phenomenon. The future anthropologists will need to study the socio-cultural aspects of international relations [Foster 1984; Wright 1988; Messer 1993; Cole 1995; Srivastava 1995a]. Impact of the fast-changing technology, global consumption patterns (overconsumption of a few co-existing with the underconsumption of many), shifting geo-political configurations, and new forms (and strategies) of domination

on human communities all over the world, are the areas of priority. The relation of the local with the global will be central to future anthropology [Moore 1996].

Although defined as the study of the entire human society, anthropology has predominantly dealt with tribals and peasants. Its emphasis in urban studies has been on slums and squatters, shanty satellite towns and migrants, religious communities, and lower-class neighbourhoods. It has not so far conducted detailed field-based studies of elite societies, of people who 'answer back' and reflect on the methods used and conclusions reached. The effect of functionalism, or any other method which searched for fixed categories, has been so overwhelming that we did not contribute much to the understanding of social turbulence. For the future survival of anthropology, it is imperative that we study societies in distress, in hunger, in collective pain and war [Das 1995; Nordstrom and Robben 1995]. We should apply anthropological knowledge to understand social issues and apprise the lay public in a de-jargonised language with our findings and suggestions for improvement. I may refer here to Bhattacharya's recent researches (1998) on the history of hunger and starvation. The lesson we learn is that no more is anthropology esoteric, the 'engagement of colonial masters' or the 'sport of kings'.[29]

VI

We have tremendous faith in the analytical ability of anthropology. Even other disciplines have been considerably influenced by anthropological perspectives. The future of our discipline is incumbent upon a better understanding of human society and culture, because from this will logically follow the steps to be undertaken for ameliorating human condition. Whether we are physical or social anthropologists, we view a system (biological, social, or cultural) in a state of dynamic equilibrium. We consider a number of factors – intrinsic and extraneous – which condition the working of systems. Biological and cultural factors should be seen as complementary, in a state of 'heuristic synergism' [Srivastava 1990: 314]. If we erroneously believe that one fact is 'superior' to the other, or is hermetically sealed, then we are likely to fission the discipline as well the 'tribe' of anthropologists (to borrow the popular words of Max Gluckman). We hear of incessant conflicts between physical and social anthropologists over the allocation of resources, and teaching and research positions in a department. These cleavages reflect the orientations these 'sub-tribes' of anthropology have towards the two great anthropological constructions – the biology and the culture. Some physical anthropologists think that their accomplishments are true to the scientific tradition, whereas their counterparts in social anthropology are simply raconteur, not more than story-tellers. The social anthropologists may regard their work as more important, by claiming that their work begins where science ends. Instead, if we begin with a model of complementariness between different facts that concern us, the tenor of our research will be qualitatively different. We can learn a lot about it from the actual practice of medical anthropologists. The future of anthropology lies in such studies.

Anthropology is principally a field science. This is not to say that anthropologists have depended upon fieldwork for their ideas, but have always referred to the field for a critical scrutiny of their theories and ideas [Fox 1975]. Unfortunately, the quality of fieldworks, especially in Indian anthropology, has become poorer. Our students prefer to study their own societies rather than venturing into ethnographic landscapes where they struggle to learn a new language and pass through the non-assuaging pangs of loneliness. Since they study their own society, they start with the assumption that they know enough, thus overlooking the nuances, the finer points, the underlying currents, the subterranean elements, and the subtleties. It is here that they commit the error.[30] Needless to say, a good anthropology depends a great deal upon the quality of our fieldworks.

To sum up: a future *of* and *for* anthropology lies in constantly struggling to evolve a sophisticated theoretical and methodological apparatus, conducting solid fieldworks, and unswervingly subscribing to the premises of human rights, democratisation, welfare, and the development of people of all shades of life.

Notes

1 Four addresses were delivered on the futures of physical anthropology, archaeology, social anthropology, and material culture, respectively by G M Morant, V Gordon Childe, Raymond Firth, and R U Sayce. See *Man*, 1944, vol XLIV: 16-24.

2 However, I refer to a piece on the future of British sociology in Payne et al (1981).

3 In these words, Fischer (1986) has paraphrased Jean-Francois Lyotard's concept of the 'post-modern'.

4 For the last few years, I have been collecting data on this topic. At the close of the teaching session (generally mid-March), I make my students write in whichever language (Hindi or English) they have adeptness a short essay on the impact of anthropology on their personal lives and orientations. I have read these essays, but so far have not analysed them properly. The observation I make here is based on these write-ups. The students have invariably noted that they became less prejudicial after studying anthropology. In this context I remember Firth, 'Ignorance and prejudice about other peoples, particularly peoples of a different colour, is still widespread, and it is part of our [anthropologists'] job to try and break it down' [Firth 1944: 22].

5 Before 1995, anthropology was one of the most popular options for the Indian civil services examination. Its popularity declined after its syllabi in both the papers was frighteningly increased. Many topics were included on which good reading material did not exist. My comments on the revised syllabi appeared in Hindi in *Pratiyogita Samrat*, January 1996, 4(12):53-4.

6 This observation is not only based on Indian experience. Many western writers have pointed this out. Mayer (1981:vii) noted that when Furer-Haimendorf decided to read anthropology, it was an 'unconventional choice'. A Delhi anthropologist, Abhimanyu Sharma, was reported (in *The Hindustan Times*, June 26, 1976) to have said that the 'rejected lot' of students joined anthropology. I rebutted his observation (*The Hindustan Times*, July 2, 1976). The drop-out rate of students in anthropology department is quite high; these students leave anthropology to seek admission in other coveted courses. The heads of anthropology departments all over the world are engaged in increasing the popularity of the subject amongst the wider public. See MacClancy and McDonaugh (1996).

7 These six Delhi anthropologists were Surinder Nath, V C Channa, S L Malik, Anil Mahajan, Lalit Kumar, and myself. Today, four of them are teaching in the Delhi department of anthropology. The other two are employed elsewhere but do the anthropological work. Later, P C Joshi, N K Chaddha, and M P Sachdeva were also inducted in the editorial board of *SAP*. Chaddha is a psychologist but is reputed for many works on psychological anthropology. *SAP* continued its uninterrupted publication till 1991; then its publication was suspended following financial problems.

8 Because of his lengthy stay (often not less than a year or so) with a community, the social anthropologist develops almost quasi-permanent relations with its members. In many cases, he 'adopts' the community of people forever. Empathy, therefore, is an important element of the relationship between the observer and the observed. This is, however, absent in a physical anthropological work which treats its 'subjects' of study as mere 'objects'. In my opinion, physical anthropologists and archaeologists do not conduct the 'fieldwork' as social anthropologists define this term. Physical anthropologists may collect data from the field or laboratory situation. Archaeologists conduct excavations on sites likely to yield an industry of human artifacts. See Wolcott (1995) for the notion of fieldwork.

9 By 'hard-core' anthropologists, I mean those who have undergone a professional training in anthropology. They are not 'self-taught'

anthropologists. Today, sociologists write articles and books which bear the word 'anthropology' in their titles. 'Anthropology' has become a sort of 'discourse' in these writings rather than just remaining a discipline. Refer to works by Das (1995), Thapan (1998).

10 Leslie White (1943) submitted that all sciences dealt with energy and motion. Culture and civilisation were also forms of energy; the sciences were therefore unified methodologically. The organismic theorists developed the concept of society by comparing it systematically with that of the organism about which they knew well, courtesy the growth of biology. Organic analogy was a procedure to know the unknown ('society') with the help of the known ('organism'). See Harris (1968).

11 Well known are their conclusions of the status of social anthropology. For Radcliffe-Brown (1952), it was a branch of 'comparative sociology', another name of sociology according to Emile Durkheim. And, it was a kind of historiography for Evans-Pritchard (1951).

12 In his reply to Forde's question regarding the integration of anthropology's branches, Firth (1944:22) said that the four branches (physical anthropology, archaeology, social anthropology, and material culture) 'called for entirely separate disciplines, and that the ties of social anthropology were with sociology, rather than with physical anthropology or archaeology'.

13 Anthropologists are seen as those 'dilettantes who flit from one area to the next' [Kleinman and Copp 1993:6]

14 I have often heard of a suggestion that physical anthropology should be placed along with zoology, archaeology with ancient history, and social anthropology with sociology; and departments of anthropology should be done away with.

15 For instance, see Clifford (1986) and his joint venture, *Writing Culture* He writes that 'man' has disintegrated as *telos* for a whole discipline (p 4)

16 Ingold writes: "...anthropology, as it exists today, is not a single field, but is rather a somewhat contingent and unstable amalgam of subfields, each encumbered with its own history, theoretical agenda and methodological preoccupations" [Ingold 1994: xiv] Also see, Moore, (1986.1): "Anthropology is no longer a singular discipline, if it ever was, but rather a multiplicity of practices engaged in a wide variety of social contexts".

17 In a recent paper, Sillitoe (1998.224) notes that agricultural economists, human geographers, and plant pathologists are 'stealing our ['anthropologists'] disciplinary clothes They themselves conduct the anthropological work required for their study If I may add, the quality of their anthropological work is inferior which brings bad name to the subject.

18 In his keynote presentation at a seminar (on 'Anthropology in India: Problems and Prospects') in department of anthropology, Punjab University, Chandigarh, from March 6-9, 1986, Indera P Singh presented a long list of anthropological specialisations. An idea of special anthropologies can be gathered from the list of seminar topics prepared for the Xth International Congress of Anthropological and Ethnological Sciences (see *Indian Anthropologist*, vol 7, no 1, 1977, pp 68-70).

19 Here, we may refer to the following observation from Needham: "The more the anthropologist specialises the more he will be obliged to observe the standard of the discipline that he enters; and if he is to induce the practitioners of that discipline to take serious notice of his knowledge and understanding of ethnographic evidence, he must in his own work earn their professional respect by conforming to the scientific or scholarly criteria which they acknowledge" [Needham 1970: 40].

20 Besides the conventional areas, the 'community' could be of laboratory scientists, homosexuals, psychiatric clients, drug addicts, sex workers, professionals and politicians, etc. Anthropologists have worked on the impact of the new reproductive technology on kinship, family, and gender [Strathern 1990] and on the ethnography of the immune system [Martin 1996]. The 'field' of research is not given; it has to be constructed. Geertz (1995:106) remarks: '...research sites are not found, they are made'.

21 Geertz (1995:210) describes this in the following words: "You don't exactly penetrate another culture, as the masculinist image would have it. You put yourself in its way and it bodies forth and enmeshes you".

22 Anthropology is as much about 'us' as it about 'them' – the 'other' culture [Leach 1982].

23 Giddens writes, 'The practical connotations of anthropology are likely to depend upon a rekindling of the anthropological imagination than upon a narrowing-down of the subject to limited social policy issues' [Giddens 1996: 125]

24 See for instance, Samal ed (1996), a book of six hundred pages.

25 This however is not the opinion of many other anthropologists: see Leach (1982), Beteille (1993). Hugh-Jones writes about Leach, '...throughout his [Leach] life he remained deeply suspicious of the supposed benefits of applied anthropology' [Hugh-Jones 1989. 14]

26 There are many cases where the people are aware of the fact that they were studied anthropologically For instance, Pul Eliya, the Sri Lankan village which Leach studied, had a notice at its entrance placed many years after Leach had done his fieldwork there. It read: 'This is the village of the famous anthropological study' [Hugh-Jones 1989:21].

27 Some anthropologists believe that ethnography is not a fact but only personal opinion, a view which Firth termed 'egoistic or solipsistic anthropology' (1992: 219) For Leach (1987) as well as Hugh-Jones (1989:34), ethnography was fiction; for Geertz (1988) it was a 'literary enterprise'. But this is not the opinion which will help the future social anthropology

28 But many coffee-table books on tribes may carry these words in their titles, or descriptions of people, in order to increase their sale. See, for instance, a French publication on Indian tribes titled *L'Inde des Tribus Oubliees* (Chene, Paris, 1993). Perhaps the publishers are motivated by the idea that the 'exotic' sells, the 'familiar' does not.

29 I have borrowed the last phrase from Godfrey Lienhardt. Lewis writes: "When Prince Charles began his anthropological study at Cambridge, Godfrey Lienhardt (at an RAI council meeting) quipped that 'anthropology had become the sport of kings' " [Lewis 1998: 567]

30 It is relevant to remember here Beteille's observation. He writes: "I have seen many young British and American anthropologists return physically exhausted from the field, looking lean and hungry, like Cassius in the play. My Indian students show less wear and tear during their movements in and out of the field. Indian research scholars stretch field work out longer, doing it in several short spells, but rarely spend as much time in the field as their counterparts from overseas. They also rarely choose to do field work in a region other than the one to which they belong, this enables them to dispense with the trouble of learning a new language, and it allows them to take other shortcuts that in the end detract from the quality of their field work" (1996:234)

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Mahakali Impasse and Indo-Nepal Water Conflict

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The Mahakali Treaty between India and Nepal was signed and rammed through the Nepali parliament in extreme haste, pushing aside all the serious doubts that were raised about the dam, the highest rockfill dam in the world in the seismic Himalayas. This article attempts to put into perspective the complex set of events that led to the signing of the treaty and to understand the dynamics of Nepal-India water conflict in the last three years.

ON January 29, 1996 in Kathmandu, after about three days of deliberations, India's external affairs minister Pranab Mukherjee and Nepal's foreign minister Prakash Chandra Lohani initialled the Mahakali Treaty – known formally as the *Treaty between his Majesty's Government of Nepal and the Government of India Concerning the Integrated Development of the Mahakali River Including Sarda Barrage, Tanakpur Barrage and Pancheshwar Project.* Immediately, there was an unseemly scramble among Nepali politicians to take credit for the Treaty. From the former speaker of parliament to the general secretary of the Nepal Communist Party (United Marxist-Leninists) then in opposition, from hard-line panchayati politicos of yesteryears to hardboiled bureaucrats, all claimed a share in the glory or sang hosannas.[1] Today, except for those whose names have been directly enmeshed with the Treaty, one is hard pressed to find a champion who would risk defending Mahakali heart and soul.

There is a need to analyse this predicament because it holds deep lessons for future efforts in collaborative water management in the Ganga basin as well as development in general. The Mahakali impasse has roots deep in Nepal's history, and ramifications beyond water resources into political economy, diplomatic relations between India and Nepal as well as governance in south Asia. While the complex events surrounding it do need much deeper socio-political analyses than is possible here and in so close a time period after the events, a beginning needs to be made that can serve as a prelude to future studies from a variety of other viewpoints. The purpose of this paper is to put into perspective the complex set of events that led to the signing of the Mahakali Treaty, and the impasse it has since been enmeshed in. It first presents the chronology of events leading up to the Mahakali impasse. With this overview, it then asks some open-ended questions that may uncover a rich agenda for further research. Several undercurrents emerge with this historical overview that need not just further insightful analyses but also some redeeming statesmanship, both in Nepal and India.

I
Chronology of Events

Early Years

The Sugauli Treaty of 1816 AD defined the national frontiers of present day Nepal. It forced the Gorkhali Empire, which had extended up to the Satluj in the west, to give up the conquered lands west of Mahakali (called Sarda in India), and fixed this river as the western boundary between Nepal and British India.[2] Given the remoteness of the headwater reaches where the arms of the Nepali state had only a feeble presence, not much is heard of conflicts in this area. In the southern reaches, however, where the land was gifted back by the British to Nepal in recognition of the services provided by Shogun Jung Bahadur Rana in suppressing the Sepoy Mutiny of 1857 AD, the braided nature of the river as it debouches onto the plains presented problems. Neither the thalweg nor centre line principle could be satisfactorily used to define the boundary, and it was taken as the mid-stream of the river with reference pillars on either side. Because of the shifting nature of the river course, a realignment of the boundary was ordered by the British India government in 1909 AD. After much correspondence and many meetings, the demarcations were completed in February 1912 during the Shogunate of Rana Chandra Sumshere.[3]

Soon thereafter, the British India government contemplated building the Sarda barrage to provide irrigation to western United Provinces. After a series of negotiations, it managed to realise a Sarda Treaty in 1920 which transferred 4,000 acres of the eastern banks of the Mahakali to India to build the Sarda barrage in exchange for 4,000 acres of forested land in areas to the east as well as Rs 50,000 to Nepal. Furthermore, the Treaty allowed Nepal to withdraw 4.25 cumecs of water in the dry season and 13 cumecs in the wet season, which could be increased to 28.34 cumecs if water were available. What India could withdraw out of the approximately 650 cumecs average annual flow of the Mahakali was, however, not specified. In effect, it was limited only by the scale of the technology it was free to employ.[4] This left room for critics of the 1920 Agreement to call it an 'unequal treaty' and, with perfect economic and technological hindsight of today, to fault Chandra Sumshere for undervaluing the left bank of Sarda barrage. There were also questions raised about where the 4,000 acres of land received in exchange from the British were located.

After a major flood in the Mahakali 'circa' 1953, India extended the left afflux bund of the Sarda barrage about a 100 m into Nepali territory beyond the border pillar BP 6A between 1954 and 1958. This extension of the Sarda afflux bund is physically similar to the case in Tanakpur in 1991. However, it is not known publicly if Nepal government provided permission for this in any form. If it was an incursion, there is no record of any protest over this by any Nepali government then or afterwards – neither during the panchayat years nor even while the Tanakpur debate raged on after the restoration of democracy during the first half of the 1990s.[5]

During the 1950s, there were no major initiatives on the Mahakali, but major flood control embankment building and irrigation projects were undertaken in north Bihar and Uttar Pradesh plains by the Indian government. To further these initiatives for the north Ganga plains, India entered into two major river treaties with Nepal in this period: the Kosi agreement on April 25, 1954 (revised subsequently on December 19, 1966) and the Gandak agreement on December 4, 1959 (amended on April 30, 1964). These treaties, and the projects they gave birth to, have had their own less than salubrious impact on Nepali polity and popular perceptions of Indo-Nepal water relations, the details of which are beyond the scope of this article.

Panchayat Raj (1961-April 1990)

Nepal, with a loan from the World Bank, began the Mahakali Irrigation Project in 1971 to utilise its share of the waters of the Mahakali as allowed under the Sarda agreement of 1920. By the second decade of Panchayat rule, Nepal's water resources development activities had began to acquire a donor-led, statist bias, precluding other (private or community-based) institutional possibilities. Private initiatives in power generation were discouraged by HMG's new industrial policy of 1972 that nationalised electricity production to make bilateral and multilateral donor involvement easier.[6] There was extensive World Bank, UN, ADB, USAID, etc, involvement in irrigation, power and water supply projects. The ministry of water resources, with irrigation, flood control, electric power, and water supply within its brief, became the largest infrastructure ministry in the country overtaking the ministry of works and transport. With the exception of the 21 MW Trisuli and 14 MW Devighat hydroelectric projects, there was not much inclination for furthering water resources projects that would be mutually beneficial to both India and Nepal.

Heavy investments were made in irrigation and power projects during this period – 66,000 ha Sunsari-Morang on the Kosi (1965-ongoing), 34,000 ha Narayani (1967-ongoing), 7,000 ha Kankai (1970-90), 25,000 ha Kamala (1975-85), 10,400 ha Chitwan Lift (1973-88), 36,000 ha Bagmati (1980-ongoing), (60 MW Kulekhani I (1974-80) and 32 MW Kulekhani II (1977-87) and 69 MW Marsyangdi (1982-89), etc. From 1985 onwards, the ministry of water resources was preoccupied with the 402 MW Arun3 (later scaled down to 201 MW, and finally abandoned in August 1995 after the World Bank pulled out of it because of criticism for its excessive cost that was four to five times more than that of private sector projects in the Himalayan region).[7] The significance of Arun3 to Tanakpur and Mahakali episodes is that this project, which had overtaken the entire water and power establishment in Nepal, saw every other alternative to Arun3 such as Sapta Gandaki, Burhi Gandaki, West Seti, etc, as rivals to be suppressed or sidelined rather than examined with an open mind. As a result, during the Panchayat rule, Nepal's water establishment was never able to approach India openly, question its plans and propose a co-operative alternative that was better suited to Nepal's interests.

In 1983, India completed the technical study of a 120 MW hydroelectric project on the border river Mahakali near the town of Tanakpur in Nainital district. Nepal raised its concerns with India regarding possible damage to Nepali land and territory, including the Mahakali Irrigation Project. The 120 MW Tanakpur power plant, which uses all the waters of the Mahakali during the dry season, would have emptied its tailwater into the Sarda canal feeding the UP system and not into the river upstream of the intake of the Sarada barrage from which Nepal's Mahakali Irrigation Project receives its water. India agreed to redesign its project and release the Mahakali water back into the river so that Nepal's existing irrigation project would not be left high and dry. It also agreed to, and constructed, some river abutments to ameliorate bank cutting on the Nepali side.[8]

By 1988, India had completed the construction of the Tanakpur barrage and the powerhouse with the exception of the left afflux bund that was needed to tie the barrage to the high ground on the left bank in Nepal. Despite its earlier insistence that this was a wholly Indian project in fully Indian territory and thus of no concern to Nepal, it became necessary for India to request for 577m of Nepali land for this purpose. However, around this period, relations between Nepal and India deteriorated with Nepal importing Chinese light arms and India imposing a peacetime economic blockade of Nepal in March 1989. The matter of extending the left afflux bund was not pursued further in view of other pressing concerns, but the essential strategic thrust of Indian government *vis-a-vis* Nepal's water resources made itself felt in its diplomatic proposals.

In November 1989, with the main architect of the blockade Rajiv Gandhi not faring well in the Indian parliamentary elections, the foreign ministers of the two countries were able to meet in New Delhi in January 1990. Even as the anti-Panchayat agitation led by the Nepali Congress and the United Left Front continued in the country, the royal regime toned down both its promotion of 'Nepal as a Zone of Peace' concept and its opposition to the 1950 Treaty of Peace and Friendship with India, and agreed to India preparing a new draft agreement on mutual co-operation. In a bid to extract maximum benefit out of the political turmoil in Nepal, India put forth a draft proposal on March 31, 1990 that included more stringent demands on Nepal *vis-a-vis* Indian security concerns than the 1950 Treaty. It was reminiscent of what one scholar has described as the 'Krishna Menon syndrome'.[9] It included Article III of Part VI Economic, Industrial and Water Resources Co-operation that stated:

> The two Contracting Parties being equally desirous of attending complete and satisfactory utilisation of the waters of the commonly shared rivers, undertake to (i) plan new uses or projects subject to the protection of the existing uses on the rivers and (ii) co-operate with each other to formulate and modify the planned new uses or project taking into consideration the water requirement of the parties.

The phrase 'commonly shared rivers' was to make a comeback later during K P Bhattarai's interim government, and the prior rights issue expressed as 'existing uses on the rivers' was to be resurrected in the 'package deal' on the Mahakali with the UML government.

On April 9, 1990, King Birendra lifted the ban on agitating political parties and multi-party democracy was restored in Nepal. The post-panchayat interim government was under pressure from the Indian government to allow the construction of the left afflux bund of Tanakpur barrage, especially after the economic blockade was relaxed following the restoration of democracy in April 1990. Soon after becoming prime minister of the interim government consisting of Nepali Congress and the communist United Left Front, Krishna Prasad Bhattarai visited New Delhi on the invitation of Indian prime minister V P Singh with an entourage that included Sahana Pradhan, then chairperson of the United Left Front and a minister in the interim government. On June 10, 1990, a joint communique was issued at the conclusion of his visit that included the phrase 'common rivers' and the expediting of their development. It was to become an election issue in May 1991 as an alleged example of Nepali Congress's 'sell-out' to India.

With the restoration of status quo ante of the pre-blockade days following prime minister Bhattarai's successful visit to India, the diplomatic initiatives from Delhi for Nepal's acquiescence to building Tanakpur's left afflux bund inside Nepali territory began to gather momentum. Meanwhile, the issue of Tanakpur, which had been wrapped within bureaucratic secrecy, began to unfold slowly in the public arena. Because the interim government's primary agenda was to frame the new constitution and hold elections, the matter of Tanakpur's left afflux bund was not pursued with any alacrity, but it continued to have its effect on Nepal's body politic. The new constitution of Nepal, which was being drafted in the meanwhile, was promulgated on November 9, 1990. It

ncluded a constitutional provision in Article 126 that required any resource-sharing agreement to be ratified by a two-thirds majority in parliament if it was of 'pervasive, serious and long-term nature".

The interim government subsequently did try to find a way out of the difficulty brought about by India's unilateral decision to construct a barrage on a common border river. Because of the geometry of the land swapped in 1920, if India tied the afflux bund to the high ground in its territory, significant portion of Brahmadeo Mandi in Nepal would be submerged. There was a need to look for a variant which would cause the least submergence in Nepal, and water resources minister of the interim government Mahendra Narayan Nidhi asked his technical team, on December 28, 1990, to make a review of the Tanakpur problem. This team recommended, on February 22, 1991, the best variant that Nepal could agree to so as to meet Indian requests. The team also mentioned Nepal's needs for additional irrigation in Kanchanpur district as well as highway connection to the Mahakali barrage that functions as the only AA class bridge over the river in this area.

On April 15, 1991, the cabinet of the interim government – which included members of the communist United Left Front – authorised HMG's negotiating team to conduct discussions with India within certain parameters, including the least harmful afflux bund variant, provision of 1,000 cusecs of irrigation water and 'some electricity' in return for agreeing to provide India 577 m of Nepali land for building the left afflux bund of the Tanakpur barrage.[10] On May 17, 1991, Indian prime minister Chandra Shekhar wrote to his Nepali counterpart Krishna Prasad Bhattarai asking for Nepal's permission to build the afflux bund, especially since the monsoon would be soon approaching. (If a record flood occurred, it could – unless prevented by an afflux bund – outflank the barrage with devastating consequences.) Because general elections were going on in Nepal, the matter remained unattended.

Centrist Majority Government and After

Nepali Congress won a majority in the general election even though its interim prime minister Bhattarai lost to the general secretary of the UML, partly due to the 'common rivers' issue. The new Congress government was headed by Girija Prasad Koirala as prime minister. He replied to Indian prime minister Chandra Shekhar, on June 10, 1991, that the permission requested from the Bhattarai government regarding Tanakpur's left afflux bund could only be given after detailed study and an agreement between the two governments.

Prime minister Koirala visited India between December 5-10, 1991 at the invitation of India's prime minister Narasimha Rao. Possibly because inadequate homework was done as regards Tanakpur, a decision seems to have been made not to discuss the matter with India in Delhi. This is highlighted by the fact that neither the water resources minister, nor the secretary of water resources, nor any other water resources experts were included in the 72-member strong official delegation that accompanied the prime minister to New Delhi. However, despite a possibility of breakdown of talks, a last-minute set of agreements was entered into with the government of India, which included trade and transit and development issues, as well as plans to develop major high dams in the Nepal Himalaya.[11] Among other things, this December 1991 agreement, explained as a mere 'understanding' and not a treaty that would have to be presented before parliament, allowed India the use of 577 m of Nepali territory to complete the construction of the left afflux bund of the Tanakpur barrage. Nepal was to receive 'free of cost' 10 million units of electricity as well as 150 cusecs of water for irrigation.

On December 15, 1991 prime minister Koirala gave a public speech about his India visit at Kathmandu City Hall. In the interest of transparency, and to counter allegations of any 'secret treaty', he promised to make public the agreements via the official *Nepal Gazette*, which was subsequently done on December 24, 1991. The details of the 'understanding' that began to emerge after Koirala's return to Kathmandu raised a lot of suspicion and hackles. It allowed India to hastily start the construction of the left afflux bund by December 15, which is before details of the 'understanding' had been made public in Nepal. Construction of flood protection works was stated to start in November 1991 even before the 'understanding' was initialled in Delhi. The newspaper reports and gazetted notices continued to confuse 10 million units (KWh) of electricity with 10 MW of power, prompting a debate of what Nepal had actually received for allowing its left bank to be used for the project.

On December 17, 1991 advocate Bal Krishna Neupane filed a writ at Supreme Court challenging this 'understanding' and appealing to the court to have it declared a treaty requiring parliamentary ratification by a two-thirds majority as per Article 126(2) of Constitution of Nepal. On February 28, 1991, during the winter session of the parliament, the communist opposition gheraoed the rostrum of the lower house for eight hours and prevented parliamentary proceedings in a bid to force the government to table before the house all documents relating to the Tanakpur 'treaty'. The treasury bench, on the other hand, maintained that it was only an 'understanding' and everything relating to it had already been published in the *Nepal Gazette* of December 24, 1991. A 19-member all-party special committee of the parliament was formed to try and find a consensus. On March 11, 1991, prime minister Girija Prasad Koirala presented written reply to the Supreme Court defending his government's position. Street agitation against the treaty dominated national politics and newspapers for months. In end-July beginning August, prime minister Koirala attended the non-aligned summit meeting in Jakarta where he is understood to have met India's prime minister Narasimha Rao and discussed the Tanakpur imbroglio.[12]

The all-party special committee of the parliament held extensive meetings and invited external specialists as well as government experts to the hearings. It was, however, unable to reach a consensus as sharp divisions remained regarding the actions of the government and the interpretations of the constitutional provision. Instead of a single document, there were three different reports presented by the committee to the lower house of parliament on September 7, 1992. In a memorandum submitted to the chairman of the upper house dated September 9, 1992, eight communist factions (including the UML, Unity Centre, United and Masal) state that the Tanakpur 'understanding' signed by prime minister Koirala was a treaty which could only be implemented after ratification by a two-thirds majority in parliament. They demand to know from the government where the 4,000 acres of land swapped with British India in 1920 is located. The communists stated very clearly that it was wrong to link the Pancheshwar Project with Tanakpur. Pancheshwar high dam, they wrote, is a separate project requiring a separate treaty with parliamentary ratification, and there is no need for Nepal to compromise her future bargaining position at this stage.

In October 1992 India's prime minister Narasimha Rao visited Nepal during which the Tanakpur 'understanding' was renegotiated. The quantum of electricity

that Nepal was to receive from the project 'free of cost' was raised from 10 to 20 million units. Future upstream water developments such as Pancheshwar Multipurpose Projects were delinked from the agreement on Tanakpur with the provision that both countries were free to negotiate on upstream projects independent of whatsoever is agreed to at Tanakpur.

On December 15, 1992 the Supreme Court of Nepal decided that the Tanakpur agreement was indeed a treaty and not just an 'understanding', and that it would have to be presented to the parliament for ratification as per Article 126 of the Constitution of Nepal. The Court, however, failed to provide a ruling on the second point of the petitioner, which was to require parliamentary ratification by a two-thirds majority as per Clause (2) of Article 126. It left it upon the parliament to decide whether the ratification should be by a simple majority or, if the matter was deemed to be "pervasive, serious and long-term", to be ratified by a two-thirds majority.

A month after the Supreme Court decision, the government constituted a committee (Baral Commission) to evaluate the impact of the agreement. The committee fixed six criteria to define whether this river development initiative and the agreement associated with it constituted "all encompassing, serious and long-term" issues. They were:

(a) If a single treaty were done to regarding use of several different river basins of Nepal, the treaty should be considered "all encompassing, serious and long-term";
(b) If a treaty is made for an entire river basin, then the treaty should be considered "all encompassing, serious and long-term";
(c) Run-of-river hydroelectric projects (with no water storage) will be excluded from this definition;
(d) This definition would apply to storage projects of capacity greater than 1000 MW and capacity factor less than 0.3;
(e) This definition would also apply to projects whose costs would be large compared to economic indicators such as annual GDP, and where sovereign loans are involved which would have to be paid back not just by the current generation making the decision but by future generations or which would be difficult to pay given the state of the economy; and
(f) The definition would apply to projects with large reservoirs where resettlement is difficult to handle within Nepal's finance, land availability, etc.

Based on these criteria, the compensation that Nepal received for allowing India to use 577 m of Nepali land to complete the 120 MW run-of-river, the renegotiations that occurred during the visit to Kathmandu of Indian prime minister Narasimha Rao that delinked Tanakpur from future developments upstream at Pancheshwar, as well as other benefits that would accrue to Nepal from the barrage such as transport, irrigation as well as diplomatic goodwill, the Baral Commission concluded that the Tanakpur Agreement was of a simple nature and not an "all encompassing, serious and long-term" one.

Subsequent to this report and other consultative works, the government made a move to present the Tanakpur Treaty to the parliament. It is suspected that the government intended to present it as a treaty of a simple nature that needed ratification only by a simple majority. It is also not clear if the government had set forth any criteria, new or otherwise, for defining the nature of the treaty as such. A meeting of the parliamentary committee of the Nepali Congress had been called. The Nepali Congress supreme leader Ganesh Man Singh refused to attend the meeting and fired what is popularly known as a 'letter bomb' to the chairman of the Nepali Congress. In his epistle of March 8, 1992, the Congress supremo declared: "Passing the Tanakpur Treaty by a simple majority of the lower house of parliament would be the equivalent of signing a death warrant. My conscience prevents me from putting my signature to it. Please do not compel me to go against my conscience."[13]

His letter, just as the Supreme Court's decision, skirted the difficult but germane issue of defining the criteria for calling Tanakpur Treaty an "all encompassing, serious and long-term" matter. The Ganesh Man faction of the Nepali Congress had been clamouring for Koirala's resignation on moral grounds after the Supreme Court decision. The speaker of the parliament (who came from the Bhattarai faction of the Congress) had compromised his non-partisanship by declaring that the house belonged to the opposition and by not co-operating with the Koirala government in this matter.[14] Ganesh Man Singh's letter effectively derailed any political chance of the issue being resolved politically in parliament by any initiative from the Koirala camp. It was thus left hanging in limbo. Even the very first meeting of the newly formed high level National Water Resources Development Council – held on the eve of V C Shukla's visit to Nepal, chaired by the prime minister and including in its composition all important politicians and bureaucrats – did not discuss at all projects of controversy such as Tanakpur and Arun3.[15]

In December 1993 the Indian water resources minister V C Shukla visited Nepal and managed to extract from the Nepali government an 'action plan' on how to proceed with the implementation of the Tanakpur agreement even when the main treaty had not been approved by the parliament as was required by the

Supreme Court verdict of December 1992.[16]

Soon thereafter, the Nepali government – which was embroiled in the Arun3 controversy – granted a private Australian company a 'hunting licence' to build the approximately 750 MW west Seti hydroelectric storage project upstream of the Karnali Chisapani Dam site and to sell the electric power to India. The matter was not presented to parliament, no questions were asked about the benefits of regulated flow that would accrue to India, and no political party or figure showed any interest or need to raise the matter, even though this issue had implications regarding Article 126(2) of Nepal's Constitution. Another attractive scheme, the Sapta Gandaki run-of-river hydroelectric project, found the site of its powerhouse and desilting basin given away to a private medical college for setting up its campus. It was speculated that this was done to remove these projects from the list of contenders to Arun3.

Meanwhile, the special all-party committee of the parliament failed to make any headway. Because of strong personal animosities among political leaders of different parties, this special committee was also unable to define what constitutes "all encompassing, serious and long-term" water sharing issue as per Clause 126(2) of the Nepali Constitution. During the agitation against the Tanakpur 'understanding' by the Koirala government, his opponents from the opposition as well as from within his own party had hyped up the rhetoric to such an extent that an acceptable resolution of this impasse was well-neigh impossible. Committee discussions became a lacklustre buying of time and parties began to exhibit early signs of 'Tanakpur fatigue'.

In July 1994, the Koirala government fell when MP's of its own party boycotted the house and a bill elaborating his government's policy was voted down. The row over Tanakpur and the Supreme Court's verdict were considered among the significant factors that contributed to the brewing of this situation. Mid-term general elections were held in November 1994 which resulted in the Nepali Congress losing the majority it commanded in the outgoing house.

The communist UML, which had vociferously opposed the Tanakpur Agreement, emerged as the single largest party in a hung parliament and formed, on December 9, a minority government. In the heat of the debate, both the communist UML and the RPP had called for renegotiating the Tanakpur agreement. India saw no reason why it should live up to the hype of Nepali opposition leaders. To resolve the impasse, the UML government, ostensibly after receiving signals from India's CPM, put forth in April 1995 a 'package deal'. This plan proposed increasing the quantum of electricity and water to be made available to Nepal, but requires Nepal agreeing to the construction of a massive (315 m high, 6,480 MW) storage high dam at Pancheshwar in the mountains upstream of the Tanakpur site on the border Mahakali river. It was this very linkage of Tanakpur with Pancheshwar that the UML had opposed previously.

Pancheshwar was a dam that India had wanted all along for over two decades but for which Nepalis had not shown much interest because of their smaller requirements for water and power. There was also a lack of clarity from the Indian side regarding power purchase price as well as valuation of irrigation benefits and India's security concerns over control of the dam that would have compromised Nepal's sovereignty. Former prime minister Kirti Nidhi Bista had warned the powerful general secretary of the UML and deputy prime minister Madhav Kumar Nepal before the latter left for talks with New Delhi that he did not agree to the Indian demand on Mahakali. He said that he had turned down Indira Gandhi's request for a pact on the Mahakali in 1972.[17] The minority UML government, however, was not able to push it ahead because of differences within its ranks about the implications of the 'package deal'. Also, it soon got embroiled over the controversial Arun3 hydroelectric project from which the World Bank withdrew support in August 1995 during its tenure, allowing the Nepali Congress to blame it for 'setback to development'.

The minority UML government fell in September 1995 and a three-party coalition of the Nepali Congress, the RPP and the Sadbhawana Party formed a new government headed by Sher Bahadur Deuba. Because of the need to accommodate as many MPs as possible in a shaky coalition, Deuba formed the largest cabinet in the history of Nepal and also created a new ministry of science and technology. By now, 'Tanakpur fatigue' had overtaken all parties in small or great measure and Nepali politicians were too embroiled in infighting among parties and groups for perks and privileges to worry about long-term interests.

During November-December 1995, in what has subsequently come to be known as the Pajero scandal, the Deuba government allowed initially MPs and later senior bureaucrats and judges the favour of importing luxury vehicles duty free without disclosing their sources of income. It was seen as a violation of Article 67 of the Constitution as well as Facilities for Members and Officials of the Parliament Act 2052 that specifies what members are entitled to as perks and privileges. The said Act does not allow MPs the facility to import luxury vehicles duty free. Only a handful of MPs did not avail of this facility, and an even smaller number openly criticised the government's move, which was seen as institutionalising corruption and buying of parliamentary votes.

On January 26, 1996, just before the arrival of Indian foreign minister Pranab Mukherjee to Kathmandu, a meeting was called between two representatives each of three major parties – the Nepali Congress, the UML and the RPP – who put their signatures on what is called a 'National Consensus on the Use of the Waters of the Mahakali River".[18] This so-called 'consensus agreement' was done outside the parliament and its committees, including the All-Party Committee on Tanakpur; the smaller parties as well as opposing factions within parties were not represented and it basically furthered the earlier UML-proposed 'package deal' on the Mahakali.

On January 29, 1996 the foreign ministers of Nepal and India (Prakash Chandra Lohani and Pranab Mukherjee, respectively) signed the 'Treaty concerning the integrated development of the Mahakali river, including Sarda barrage, Tanakpur barrage and Pancheshwar project'. The treaty provides 50 million units of electricity to Nepal from the Tanakpur powerhouse and barrage over and above the 20 million agreed between Girija Koirala and Narasimha Rao. It also provides more water for irrigation as well as environmental needs below Sarda barrage but wrest from Nepal the consent to build the Pancheshwar high dam – which would generate nine billion units of electricity that would be consumed mostly by India. It also had some water and cost sharing provisions, which subsequently became controversial as their implications began to unfold. The agreement was clearly and without doubt of an "all encompassing, serious and long-term" nature and needed two-thirds ratification by parliament. However, it became clear that Nepal's rights to 50 per cent share of the water of a border river had again been compromised by Article 3 of the treaty as well as Clause 3 of the accompanying Lohani-Mukherjee exchange of letters.[19]

The prime ministers of Nepal and India re-initialled the treaty during the visit t

India of Nepali prime minister Sher Bahadur Deuba on February 12, 1996. A day later, on February 13, 1996, the Communist Party of Nepal (Maoist) led by Puspa Kamal Dahal (Comrade Prachanda) and the United Peoples' Front led by Baburam Bhattarai declared the Maoist 'peoples' war', an insurgency which has taken more lives than most past revolutions in Nepal. Among their many demands was, and is, the abrogation of the unequal treaty on the Mahakali.

On February 17, 1996 in Bombay, during a continuation of the Nepali prime minister's India visit, the Nepali secretary of the ministry of water resources and the Indian secretary of the ministry of power signed an umbrella 'agreement between His Majesty's government of Nepal and the government of India concerning the electric power trade'. This agreement allows any governmental, semi-governmental or private enterprise in Nepal or India to buy and sell power to each other determining, in the process, their terms and conditions. Meanwhile, public debate began to heat up prior to the parliamentary ratification of this treaty. This debate was very strong within the left and right parties. There was, however, practically no debate or discussions within the centrist Nepali Congress that had, since coming to power in 1991, jettisoned the principles of 'democratic socialism' in favour of economic liberalism.

Two weeks after the treaty was initialled on April 10, 1996, because of public pressure, the 26th Central Committee Meeting of the UML formed a working group to study the treaty and its implications, even though its Janakpur meeting welcomed the signing of the treaty. Meanwhile, on August 20, 1996, water resources minister Pashupati Sumsher Jung Bahadur Rana tabled the Mahakali Treaty for parliamentary discussion and ratification.

In what is widely seen as an effort to pressurise the UML into ratifying the Mahakali Treaty, the British minister of state for parliamentary affairs Liam Fox and the US assistant secretary of state for south Asia Robin Raphael hinted during their visits to Nepal around August 26, 1996 that non-ratification of the Mahakali Treaty would send a wrong signal driving away private international investments in Nepal.[20]

On September 2, UML's study committee on the Mahakali Treaty (Oli Commission) presented its report to the general secretary, which highlighted 26 flaws with the Treaty. Among the flaws reported (for the first time) was the presence of Indian troops at Kalapani in Nepal near the headwaters of the Mahakali.[21] In terms of seriousness regarding matters pertaining to Nepal-India relations, it subsequently overshadowed the Pancheshwar high dam issue. This report virtually split this main opposition party (without whose votes the Treaty would not muster the required two-thirds majority in parliament) into two – the majority Bolsheviks who felt that the Treaty should be ratified first and the negative points taken care of during the preparation of the engineering report (DPR) of the high dam project, and the minority Mensheviks who thought the Treaty should not be ratified until all the flaws had been cleared up with India (and who later split off as the ML faction).

The working committee and central committees met in almost continuous sessions to iron out the differences between the Bolsheviks and the Mensheviks. The 28th meeting of the central committee of the UML was held from September 4-9, 1996. This meeting decided that the Treaty can be ratified only after HMG and the government of India gives written commitments to rectify the following items:

- Demarcate Nepal's western border with India within a fixed time-frame.
- Remove Indian military checkpost from Darchula.
- Give to Nepal 36.67 acres of land that should have been given when the Sarda barrage was constructed.

- Declare Mahakali river as basically a border river.
- Have written commitment from India that it will buy Nepal's share of the electricity from Pancheshwar dam on the principle of avoided costs.
- Assure that Nepal will have half the rights to the water produced from Pancheshwar dam, that Nepal will have unhindered right to use her share of the her water, and that India will not raise any objections to Nepali irrigation projects in the Tarai.
- Review 1950 Treaty.
- Assure alternative transit point for Nepal through Bangladesh.
- Assure that the transit treaty between Nepal and India will be for long term
- Manage scientifically Nepal's border with India.
- Regulate Nepal-India border.
- Assure Indian help in solving the problem of the Bhutanese refugees.
- Assure that India will provide Nepal navigational access to the sea.

The UML wrote a letter to HMG asking for its and Indian government's written commitments on these points before it would consent to ratifying the Mahakali Treaty. On September 11 prime minister Deuba replied to the UML that all these issues are either covered in the Treaty or will be done by technical teams to be constituted between two governments. The Indian ambassador, in letters of September 10 and 19, declined to comment on these issues as diplomatically inappropriate to him; but he assured "that the government of India would be happy to discuss these and other relevant matters and reach mutually satisfactory understandings on them after ratification of the Treaty, at the time of finalising the detailed project report". The Bolsheviks are satisfied that this letter is enough of a written commitment on the above issues, whereas the Mensheviks call it a worthless receipt.[22]

At the penultimate moment before the parliamentary vote for ratification, an equally split 29-member central committee of the UML approved with 17 vote's majority against 16 votes to ratify the treaty. The chairman of the party, former prime minister Man Mohan Adhikari – who had spoken out against the Treaty – claimed indisposition, and he was replaced temporarily by an alternate member of the general secretary's choice who voted in favour of ratifying the Treaty. The party's Mensheviks called this a 'counterfeit majority'. Students ransacked the UML parliamentary party office and locked up leaders who had to be rescued by the police. There was an attempt by small parties opposed to the Treaty to encircle the parliament but police action, including arrest of some opposition politicians, including former prime minister Kirti Nidhi Bista, prevented this from happening.[23]

The Mahakali Treaty was ratified close to midnight by a more than two-thirds majority of the joint upper and lower houses of the Nepali parliament, as per the constitutional requirement of Article 126.[24] However, before the Treaty was ratified, the parliament unanimously passed a stricture on the Treaty ('sankalpa prastav') that is binding on the Nepali government. The stricture, *inter alia*, redefines water rights, especially as stated in Article 3 in the main Treaty text as well as in Clause 3 in the letter exchanged with the Treaty. The four elements of the stricture are:

(1) Nepal's electricity to be bought by India will be sold as per the 'avoided cost' principle;

(2) When the Mahakali Commission is constituted, it will be done only upon agreement with the main opposition party in parliament as well as parties recognised as national parties;

(3) 'Equal entitlement in the utilisation of the waters of the Mahakali river without prejudice to their respective existing consumptive uses of the Mahakali river' means equal rights to all the waters of the Mahakali; and

(4) Saying that 'Mahakali is a boundary river on major stretches between the two countries' is the same as saying it is 'basically a border river'.[25]

In the debate leading to the voting on the Treaty, UML parliamentarian Khadga Oli said that the Mahakali Treaty was done to correct the treason ('rastraghaat') committed in Tanakpur by the government of Girija Prasad Koirala. This allegation was not countered or challenged by the Nepali Congress, which en masse votes in favour of the Treaty, even though senior leaders such as Sailaja Acharya had voiced misgivings. The unanimous passage of this stricture essentially means that the Treaty has been given conditional ratification. The argument was put forward by those in favour of the ratification that the defects in the Treaty, as well as the provisions of the parliamentary strictures, would be taken care of during the preparation of the detailed project report (DPR) of the Pancheshwar high dam project. As per Article 3 (a) of the Lohani-Mukherjee exchange of letters with this Treaty (re-initialled again by Narasimha Rao and Sher Bahadur Deuba on February 12, 1996 in New Delhi) this DPR had to be prepared within six months of the entry into force of the Treaty, i e, March 19, 1997.[26]

Because of the controversy surrounding the Treaty, and the fact that it had been passed with an unanimous parliamentary stricture, the parliament constituted a joint parliamentary committee to monitor the Mahakali Treaty on October 10, 1996. Its objective was to guide the implementation of the Treaty and assure the inclusion of those points that have been missed in the Treaty such as the 'sankalpa prastav'. There were 10 members from different parties in the committee, which was chaired by the Speaker of the House of Representatives Ram Chandra Paudel.[27] Like the previous all-party parliamentary committee on Tanakpur, this committee too was unable to provide any guidance. The members visited the site and came back as confused as before. To add to their worries, India's joint secretary of water resources, responding to questions from Nepali journalists regarding the 'sankalpa prastav', said that India is not concerned with what such 'prastavs' say. Rather, India is only concerned with the wordings in the Treaty itself.[28] The much heralded statements by political leaders that all defects in the Treaty would be taken care of during the preparation of the DPR and that India has agreed to do so, is thus proved wrong.

Even as the two governments remained unable to prepare the DPR of the Pancheshwar project under the Mahakali Treaty, the Deuba government signed a memorandum of understanding with India to study the mammoth Kosi high dam project in January 7-9, 1997. This agreement, signed by Anand Bahadur Thapa, executive director of HMG/N Water and Energy Commission and Ramesh Chandra, chairman of the India's Central Water Commission, allowed the establishment of liaison offices in Nepal by India for the purpose of preparing these projects, committed Nepal to providing data to India on its water projects within this area from Birganj to Biratnagar within a month without India reciprocating along the same lines, and agreed to India paying for the perks and privileges of Nepal government employees on this exercise.[29]

Politicians of Nepal seem to have been guided by the view that large water resources projects are synonymous with Nepal's development. Nepali party functionaries fear political allegations that a project, any project, is not moving forward due to their action or inaction regardless of technical, economic or developmental demerits of such projects. Hence they prefer to be seen 'for' projects rather than questioning them. With the collapse of Arun3, Nepali politicians have

gone overboard blaming the opposition for its cancellation by the World Bank. To be seen as promoting water resources development the Deuba government continued its 'distress sale' type of approach to large-scale water resources development.

It proposed giving a 'hunting licence' to Enron Renewable Energy Corporation of Texas for the Karnali project. Enron highlighted in its proposal that it was willing to build the Arun3 as part of the Karnali-Arun3 package, with Arun3 costing only 700 million US dollars as opposed to the aborted World Bank/HMG plan which required 1.1 billion US dollars of which approximately 42 per cent was to be borne by the Nepali consumer through stiff tariff hikes. His cabinet minister for water resources Pashupati Rana opposed Deuba in this attempt because the matter involved downstream irrigation and flood control benefits that would accrue to India and upstream costs such as submergence to Nepal.[30]

In end February 1997, again because of party indiscipline, the centre-right Deuba government collapsed and an incongruous right-left coalition formed the government.

After the Treaty

Lokendra Bahadur Chand of the RPP become prime minister on March 3, 1997 after Sher Bahadur Deuba's government collapsed when some Nepali Congress MPs refused to show up during a crucial vote. Chand led a right-left coalition government of ex-panchas and the communist UML with Bam Dev Gautam as the deputy prime minister. This government exchanged the instruments of ratification of Mahakali Treaty with the Indian government on June 4, 1997 without including the provisions of the sankalpa prastav of the parliament. It also went ahead with an agreement with the private Australian Snowy Mountain Engineering Company regarding the export-oriented multipurpose west Seti storage project without discussing downstream water rights issues. The powerful deputy prime minister claimed in parliament that this was done because it is only a hydroelectric project and that "claiming downstream benefits from India may lead to India claiming damages from flooding from the waters released from the reservoir".[31]

The state of affairs of the body politic is highlighted by the following statement in *Kathmandu Post*:

> Ex- and soon-to-be prime minister Surya Bahadur Thapa's interview given to *Kathmandu Post*'s Akhilesh Upadhyay: *TKP*: What could be the interests of 'unseen forces' trying to destabilise democracy? *SBT*: The biggest destabilising force is the politics of commission. [Agents of] Arun3, Karnali, Enron etc. have come to play a crucial role in the frequent changes in government and the distribution of portfolios within a given government. For this class, its petty economic interests prevail over the national interests. This force has no scruples.[32]

The joint parliamentary monitoring committee came to an impasse. It directed the government to do a thorough homework regarding the source of the Mahakali and the status of the western border of Nepal.[33] After a long silence since the People's Movement in 1990 that overthrew the panchayat system, its last prime minister Marich Man Singh Shrestha broke his silence and gave an interview. He accused the government of caving in before India and claimed that his government had rejected the Mahakali project proposed by India because of the border problem at the headwaters. He further claimed that because of his government's nationalistic stance regarding Tinkar (Kalapani) and Mahakali, India imposed the economic blockade of 1989.[34]

Pashupati Sumsher J B Rana, erstwhile water resources minister in several governments but not in this Right-Left one, in an interview given to Binod Dhungel, executive editor of *Janata Saptahik*, on June 17, 1997 expressed amazement that the very forces which opposed the Mahakali Treaty now moving forward to exchange the instruments of ratification without incorporating the provisions of the 'sankalpa prastav'.

In what has come to be known as the 'Good Bye, Monika!' episode, two otherwise warring newspapers, *Dristi* of the UML and *Punarjagaran* of the Ganesh Man-Bhattarai (or alternatively, anti-Girija) faction of the Nepali Congress jointly hosted a farewell reception for a press officer of the Indian embassy at the pricey Shangrila hotel. The press officer had been responsible for assuring favourable press during the passage of the Mahakali Treaty. What was even more incongruous diplomatically was the presence of senior UML and NC leadership of ministerial rank at this reception.[35] An all parties' meeting of August 3, 1997 wanted the government to write a letter to Enron of Texas for investment in the 10,800 MW Karnali-Chisapani hydro-project. Enron publicised its intention to sell electricity to China some 3,500 km across the Himalaya to the north to the delight of left-wing comrades and to build the Arun3 project.[36]

By September 17, 1997, the much talked about and publicised completion of the preparation of DPR of Pancheshwar multipurpose project ran into deep waters after a proposal of water sharing put forth by a Indian technical team. Highly placed government sources who participated in the meeting of joint group of experts are reported as telling *Kantipur* daily that India came forward with an altogether new and unheard of proposal during the talks which stunned the Nepali technicians. Their proposal was that the sharing of Mahakali waters should be done only after ensuring that the flow of water to the lower Sarda project situated about 160 km downstream from the Sarda barrage at the Nepal-India border is assured as prior use. In fact, India made prior rights claims based on the size of its canals (built without Nepal's cooperation or permission) which amounts to more water than there is in the river itself. India thus used Article 3 of the Mahakali Treaty to its advantage as suspected by many when the Treaty was initialled.[37]

Lokendra Bahadur Chand's government collapsed between October 4-6, 1997 when differences arose in the RPP about the wisdom of unprincipled coalition with the communists. A government led by Surya Bahadur Thapa of the RPP was formed with the largest parliamentary party, the Nepali Congress, as junior coalition partner. On December 4, 1997, the six-month period for the preparation of the DPR stipulated in the Letters exchanged with the Mahakali Treaty and counted from the date of exchange of instruments of ratification lapsed with no progress. Those who opposed the Treaty as unequal and flawed in 1996 argued that the Treaty has lost its legitimacy and can be considered as having lapsed. There was talk that this is a 'procedural' matter, which can be sorted out bureaucratically, but the counter argument made is that only the body, which ratified the Treaty (two-thirds of the parliament), has the right to change it.[38] On January 9, 1998 the RPP split into the Thapa faction which is seen as pro-Mahakali Treaty and the Chand faction which is seen as opposed to it. On March 5, 1998, the Menshevik faction of the communists, most of whom abstained from voting for the Mahakali Treaty, broke away from the UML to form the Nepal Communist Party (Marxist-Leninists) or ML for short as opposed to the UML who were responsible for ramroding the Treaty through parliament.

Between April 10-12, 1998 the Nepali Congress forced Surya Bahadur Thapa to resign and formed a minority government

headed by Nepali Congress president Girija Prasad Koirala with support by the Mensheviks from the outside. In the new cabinet, Sailaja Acharya became deputy prime minister and minister of water resources. She openly advocated the 'Small is Beautiful' philosophy and mentioned flaws with the Mahakali Treaty for which she was attacked by the pro-Mahakali Thapa faction of the RPP and the UML.

In May 19, 1998 the Chinese deputy minister for water use and vice-president of Chinese Federation of Commerce and Industry Yan Kikung visited Nepal. In reply to questions of China buying electricity from Nepal from the Karnali and Arun3 projects, the minister said categorically that China had no intention of doing so, that for Tibet she was going to develop solar energy because of the dispersed nature of the settlements.[39] This came as a jolt to those Nepali politicians and policy-makers who have been sold on the dream of exporting electricity to China as well as India. The presence of Indian troops at Kalapani on the Mahakali was protested by students of the ML faction. Former foreign minister Rishikesh Shah said that the Indian troops moved in when he was in the ministry during the reign of King Mahendra who did not wish to irritate India any more than he already had.[40]

There was a campaign to discredit deputy prime minister Sailaja Acharya because of the letter she has had her ministry write to Enron on July 24 effectively not giving it the Karnali project survey license it had asked for. She and her ministry argued that Karnali was a multipurpose project and the issues involved were not just of electricity exports but also significant downstream flood control and irrigation benefit issues in India. This matter needed further discussions with the lower riparian and was related to how much progress was made in the difficulties regarding the Pancheshwar project and the Mahakali Treaty.

Against her were aligned not just the Thapa faction of the RPP but also her rival in the Nepali Congress led by ex-prime minister Sher Bahadur Deuba, the latter accusing Acharya of 'murdering' Karnali. In perhaps what could be the only event of its kind worldwide of a communist leader openly advocating for a multinational company the leader of the opposition UML and former prime minister Man Mohan Adhikary accused the government of cold-shouldering Enron and threatened to make this an issue.[41] The deputy prime minister was made to stand at the rostrum of the lower house and heckled for two hours. In her reply, she quoted the joint parliamentary committee members monitoring the Mahakali Treaty as saying that the Treaty was as good as dead, which infuriated the pro-Mahakali lobby. She, however, claimed that without adequate progress on the Mahakali Treaty, a new project such as Karnali Chisapani cannot be initiated since the issues in both were linked in terms of downstream water rights.[42] While she stuck to her ground, her party's central committee decided that Pancheshwar and Karnali Chisapani projects were not linked and that Enron should be invited for talks to give it the survey license.

On August 26, 1998, the breakaway Menshevik communist faction of the ML formally joined the Koirala government and took up cabinet assignments. In an article in a local weekly, former foreign minister and Nepal's permanent representative to the United Nations Shailendra Kumar Upadhyay mentioned that the commission agents against Sailaja Acharya were the very forces which ousted minister D P Adhikari from the water resources ministry during the panchayat days in 1979 when he initiated the small hydro development projects.[43] Deputy prime minister Acharya mentioned in an interview in the official daily that the 'water mafia' which has benefited from kickbacks in foreign aid projects would like to see her removed.[44] In a continuing bout of national amnesia, despite the Chinese deputy minister's statement six months earlier, prime minister Girija Prasad Koirala said to Japanese businessmen during his visit to Japan on November 5, 1998 that they should invest in hydropower development in Nepal and sell electricity to Indian and Chinese markets.[45]

The ML, which was ideologically closer to other communist factions, came under pressure from the other eight left groups ('aath baam samuha') to either force its Congress coalition partner to curb police activities against the Maoists and agree to other left demands or to quit the government. On December 10, 1998, all its ministers in the cabinet resigned en masse. On December 24, 1998, Girija Prasad Koirala again formed another government, this time with the UML as coalition partners on the condition that he recommends dissolution of the house and the hold fresh elections.

The leaders of the UML had met Indian prime minister Atal Behari Vajpayee in Delhi on September 19, 1998 and assured him that they would co-operate in furthering the Mahakali Treaty as they had done during its ratification. They assured him that they were doing this not for petty interests or a few billion rupees but for furthering friendship and bilateral relations with India.[46] The UML, in its Bhairawa meeting had passed a resolution demanding the DPR of Pancheshwar Project be prepared forthwith. Immediately upon assuming the portfolio of water resources minister in the new coalition, UML politburo member Pradip Nepal called for a meeting of senior officers of the water resources ministry as well as finance and foreign affairs secretaries of HMG and authorised the transfer of Rs 15 million from various projects to the Pancheshwar Project office for the preparation of the DPR.[47] This action was criticised by other left parties as unbecoming of a government which was effectively an interim government that was only mandated to hold fresh elections.[48]

II
Larger Questions

The three-year saga of the Mahakali Treaty presents itself as a forensic resource to study and understand Nepali polity and its relationship with its big southern neighbour. The Treaty is a classic case of "marry in haste and repent at leisure", as the current impasse over its implementation amply demonstrates. It is standing proof that for the major political forces in Nepal and their leaders, international treaties have value more for their outward form than for their internal substance, more to look 'nice' as 'development-oriented' politicians in the short-term than to have the nation benefit from their substance in the long term. Given the unseemly haste with which the Treaty was rammed through parliament and the barrage of pejoratives that was fired at those raising caution regarding the highest rockfill dam in the world in seismic Himalaya, it may be safely predicted that conflict and paralysis will probably mark the way forward unless redeemed by farsighted statesmanship. However, selective amnesia that filters out difficult questions of resource management seems to be pandemic among Nepal's political set, which does not leave much room for sanguinity.

The fact is that Nepalis are prisoners of their own hype. There is the pervasive and naive belief that global capital and/or the foreign aid machine would do the needful for harnessing the Himalayan waters and selling the electricity generated to India, after which they could be rich as the sheikhs of Arabia. Without adequate homework on the details of costs and benefits, as well as on the intense and complex bargaining required to realise these dreams, they will

find themselves ill-prepared to face the forces of the market. As in the past, it will lead them to a perpetual *post facto* feeling of having always received a raw deal. More fundamentally, the idea of generating electricity by harnessing Himalayan water, exporting it and developing the country from the revenue generated is simplistic on several counts, from hydrogeology to macro-economic finances. There has never been any serious articulation of what the multiple risks are, how much the actual revenue will be, or what linkage there is between water resources development and the eradication of pervasive poverty in the Himalaya-Ganga. Indeed, without such upstream-downstream linkages with the economy's overall capacity and development, the experiences of other countries from Ghana to Laos to Paraguay point to the possibility of such high-risk projects leading straight to impoverishment instead.[49]

A fundamental flaw of those 'marrying in haste' is to be unable to distinguish between the purpose of a Treaty and that of a DPR under the Treaty. The former is a political document that defines rights and the boundaries of those rights on the entire Mahakali basin. It is the job of politicians to secure those rights, and their success or failure is judged by how well they do this job. By demonstrating casualness and carelessness regarding the implications of Article 3 of the Treaty as well as Clause 3 of the Lohani-Mukherjee exchange of letters that form an integral part of the Treaty (re-initialled subsequently by two prime ministers), the current crop of leaders have not fared well their task of protecting Nepali rights and interests.

By contrast, the Pancheshwar DPR on which all aspirations are now pegged (or to put it more bluntly, behind which skirts major political leaders are currently hiding) is a technical engineering document regarding the construction of a very high dam – one of the highest in the world – within the framework of the Treaty. It cannot change or challenge that framework. It cannot negotiate rights on water nor can it negotiate the modality for fixing the price of electricity ('cost plus' or avoided costs'). Political leaders alone can do that, but being prisoners of their past, they show little will in being able to do so. The all-party parliamentary committees formed to find a consensus and guide the DPR preparation is 'as good as dead' and along with it the Treaty it ratified three-years ago with such fanfare.

Even on professional matters, government expertise and organisations that are supposed to do the expert homework on the technical issues have eroded their own credibility with their past unprofessional performance on Arun3 and other water resource-related issues. This sad state of affairs has come about because of political interference, failure of senior bureaucrats to stand up for professionalism, as well as the rampant growth of a culture of 'zamindari' research, an attitude wherein in-house homework is substituted with a total reliance on expatriate consultants. This has not only sapped their intellectual vigour but also made them incapable to providing sound professional advice to the medley of political masters of the day.

There has also been a less than satisfactory performance by other constitutional organs of the state. The crux of the matter from Tanakpur to Mahakali lay in defining the three adjectives of Clause 126 of the Constitution of Nepal – what constitutes 'pervasive, serious and long-term' issues in a resource sharing Treaty – and the Supreme Court was asked to do so in a writ petition. While the court ruled that the 'understanding' reached by prime minister Koirala in December 1991 was a Treaty that needed parliamentary ratification, it failed the petitioner on his second point, i e, whether the matter constituted an issue of "all encompassing, serious and long-term" and thus required ratification by a two-thirds majority. The court sent the matter back to the parliament for it to decide, and the parliament has, to this day with all their all-party committees, failed to do. Once the court has been asked to provide judgment on this issue, it should have done so (taking the help of appropriate amicus curae of experts if necessary) without saying, let the parliament decide and then we will judge whether the parliament's decision is correct or not. This is a major reason why the matter hangs in political and judicial limbo.

The Mahakali impasse has also forced upon us questions regarding the role of the 'durbar'. While it is fashionable not to see any wrong with the durbar since monarchy went constitutional in 1991, several things are worth noting. First, the current constitution gives joint executive powers to the durbar and the executive, and the durbar s role does include warning the executive of what it would see as improper in the larger national interests. Given that both the Tanakpur and Kalapani issues originated during the "active and dynamic leadership" of the durbar pre-1990, and the fact that it functioned as the *de facto* secretariat of the country where much of the relevant documents resided (as opposed to the *de jure* secretariat, especially since the 1975 second and the 1980 post-referendum third amendment of the constitution), its role in providing timely warning to the new Executive system was essential. This was not done.

In recent interviews, former foreign minister Rishikesh Shah has opined that Mahakali Treaty is not a Treaty but only a *note verbale* since it has not been approved by the durbar.[50] The point is moot since the Treaty laws in force do not have such a provision; but the legal right as well as moral responsibility to provide timely warning does rest with it under the present arrangements. This provision has not been used to benefit the nation in a timely fashion as far as the Tanakpur-Mahakali issue is concerned.

Second, the issue of Mahakali is now inextricably linked with that of the presence of Indian troops at Kalapani. How this relates to the durbar is in the following. Foreign troops were stationed on Nepali soil during the period of active and absolute monarchy, and the army – one of whose elementary functions is to guard the country's frontier from encroachment – is still under the durbar and not fully under the elected government under the present democratic dispensation. For such institutions not to have done anything about foreign troops on its soil raises many disturbing questions, and the durbars attempted aloofness on this matter can leave it open to interpretation of reluctant co-operation with the new dispensation.

In resolving the Mahakali impasse, national exercises are needed which rise above partisan interests not only of political groupings but also of the durbar and the rent-seeking bureaucracy in singha durbar; but how can that be achieved? While one can debate various ways of achieving it, one can at least begin by outline those activities that must not be done if a way out is to be found:

– Nepalis should stop reflexively blaming the Indians. They are only taking advantage of an attractive bargain at throwaway price offered by Nepalis with their lack of effective homework. Such a favourable situation would be something any party on the other side of the bargaining table would avail of.

– Those who wish to see the Pancheshwar high dam built should not continue to deny the obvious. A good beginning could be made by admitting that the Mahakali Treaty done in haste has serious flaws in it. A Treaty ratified with strictures is no ratification, especially since the Indian side has not accepted those strictures and the Nepali side cannot move away from those strictures. Very pertinent in this regard is the near absolute lack of any

debate within the Nepali Congress on this issue. While both the RPP and the UML/ML have seen debates on Mahakali, this silence on the part of the oldest and major centrist party of Nepal does not bode well for an open and democratic polity.

– Certain statesmen-like norms need to be established that do not misuse provisions of the constitution for partisan ends. If the court and the Constitution demand that a criterion for defining "all encompassing, serious and long-term" is required, parties in parliament should not shirk from that responsibility, but get that task done before moving forward with other resource sharing agreements whether bilaterally, multilaterally or through the private sector. Otherwise one merely exports Tanakpur-Mahakali type imbroglios into the future for other projects.

– There is no need to continue being prisoners of hot political rhetoric and hype. It has only divided the nation and put national leaders up for ridicule. The homework that should have been done before the Treaty was formalised has not been done even into this third year after it was signed (even though it was rather thoughtlessly promised in ratified writing to be done in six months); and given the complexity of the issues involved, both technical and socio-economic, there is little chance of its being completed well into the life of the next parliament. All indications point to the possibility that the hyped up benefits projected for this Treaty are just not there.

– The bureaucracy and their political masters should not shut off their ears to civil society voices. The Mahakali Treaty has been characterised, among other things, by the refusal of those in power to listen to any alternative arguments. Those arguments have now come to haunt all the three fractured parties in Nepal.

– If development is to be real and sustainable, there must no longer be any shirking from an honest assessment of the real capacity of national institutions and the need to build up these capacities. The project that the Mahakali Treaty aims to execute – Pancheshwar high dam – is, at 315 m, the second if not the highest rockfill dam in the world. The implementation of an engineering project of such a magnitude is replete with challenges and uncertainties, for meeting which the managerial and technical capacities of Nepali and possibly Indian water related institutions in their current stage of evolution are questionable.

There are also major lessons for India's water bureaucracy as well. Water resource management in the semi-arid tropics that is the Himalaya-Ganga, albeit punctuated by short monsoon cloudbursts, is a slow proposition which not only needs to assure fairness with the societies it is dealing with, but must be perceived and accepted as being fair as well. Agreements through political pressure, diplomatic manoeuvring and legal point scoring from a strong and large neighbour may bring forth agreements in the short term but, as Mahakali has shown, nothing will move forward in the long term. Even if it did, the social and political costs may make the victory too expensive. Since India is to be the major beneficiary of reservoirs in Nepal, it will have to go the extra length in providing creative leadership that is not just legally but morally unassailable. The need of the region and the times is for sagacious water management at the micro- and meso-levels so that agricultural, health and sanitation securities are assured, and its impact can be translated into quick and tangible economic benefits. However, given the continuing preoccupation of the Indian water establishment with new constructions and a failure to conduct a credible review of past mistakes, there is little hope that south Asia's largest water bureaucracy can provide the required statesmanship. This job is made all the more difficult because of the colossal vested interests built into the political economy of embankment and canal construction industry in India.

The answer therefore probably lies in growing activism, not only of the environmentalists but also of the judiciary, journalism and the sections of the bureaucracy that are concerned with issues of equity such as social and rural development wings. Therefore reassess, reconsider and renegotiate in good faith. Indian water and energy requirements on the ground are quite different from that which is projected by its construction-oriented water bureaucracy. Those requirements cannot be met at reasonable costs from the type of technology and programmes offered by the high dam option, at least in the short to medium term of the next 20 years. The same is true of Nepal's own needs.

Proper water management in the Himalaya-Ganga is a pressing need of today which has to be done based on principles of low cost options, short gestation projects, contractual reliability especially for industrial and agricultural consumers, national capacity building for effective maintenance and technology transfer, and a balance of equity in regional and urban-rural contexts. Given what has happened around the world, both in developing and industrialised countries in this regard, it is quite easy to see how the Mahakali option fails on these criteria compared to other paths and options.

The delegitimisation of mainstream political actors in Nepal, despite democratic polity, has its genesis in their inability to conceptualise modalities of ushering security to the Nepali people by addressing the eco-structural contradictions that the country is enmeshed within. The process is further aggravated by their inability to define the path of harnessing the country's resource, particularly water, to the advantage of the country's disadvantaged sections. The response by all political parties across the board to harness water resource *vis-a-vis* India has so far in the last half-century been one-track and rooted in the notion of sharing of the largesse from a mega 'project'. The end result has been many words but little or no deeds to show for the hype, leading to erosion of the state as an institutional resource and the crises in governance that the country currently faces.

The alternative approach of national capacity building, local government participation, use of cheap and reliable electricity to give national industries a competitive edge etc. would obviate much of the current ills in Nepali body politic. This approach (as opposed to that of only inviting external contractors and consultants) will enhance local resilience that will contribute to demonstrable societal well being. The difficulty, however, is in transcending the clogged filters within the water establishment as well as the current set up of political leadership in the country.

Notes

1 General secretary of CPN (UML) Madhav Kumar Nepal (who said on Nepal TV that the mango tree had really been planted by the UML but when time came for plucking the ripe mango, the Nepali Congress happened to be in power); former speaker of parliament Daman Nath Dhungana (who wanted credit for not allowing Tanakpur Treaty to be passed by the Girija Koirala government); and former Royal Palace bureaucrat responsible for the water resource portfolio during the panchayat years Govinda Das Shrestha (who wrote in *Kathmandu Post* of February 1, 1996 that "[the new Treaty] is indeed a happy occasion for all Nepalis...But it is an undertaking and obligation no political party or government can or should possibly balk at or withdraw from".)

2 See Regmi, M C, 1995: *Kings and Political Leaders of the Gorkhali Empire 1768-1814*, Orient Longman, Hydrabad, India.

3 See Gyawali, D, 1993: 'Tanakpur on the Thames', *Himal*, vol 6, no 4, July-August, Kathmandu.

4 Gyawali, D and O Schwank, 1994: 'Interstate Sharing of Water Rights – An Alps Himalaya

Comparison', *WATER NEPAL*, vol 4, no 1, Kathmandu.

5 Gyawali and Schwank, ibid.

6 See case study of Butwal Power Company in D Gyawali, A Dixit, S Sharma and N Dahal, 1999, 'Fractured Institutions and Physical Interdependence – The Challenges to Local Water Management in the Tinau River Basin in Nepal'. Study by Nepal Water Conservation Foundation, Kathmandu with support from IDRC/Canada.

7 Gyawali, D, 1997, 'Foreign Aid and the Erosion of Local Institutions – An Autopsy of Arun3 from Inception to Abortion' in C Thomas and P Wilkin (eds), *Globalisation and the South*, International Political Economy Series, Macmillan Press, London

8 The statist bias in all of this, both in Nepal and India, is obvious when one considers that amelioration measures were only limited to civil engineering structures: during the construction of the barrage, the bank cutting in Nepal from diversion works affected about 80 families, but they were not compensated. See Report of the Commission formed to assess the impact of the Tanakpur barrage agreement, also known as the Baral Commission Report (in Nepali: *Tanakpur Bandh Pariyojana Sambandhi Samjhautako Asar Mulyankan Sujhav Samity Dwara Prastut Nepal Ra Bharat Beech Tanakpur Bandh Pariyojana Sambandhi Samjhauta Ko Asar Mulyankan Pratibedan*, Falgun 3, 2049 (February 14, 1993), His Majesty's Government, Kathmandu.)

9 See Dhruba Kumar 1992, 'Asymmetric Neighbours' in D Kumar (ed), *Nepal's India Policy*, Centre for Nepal and Asian Studies, Tribhuban University. This publication also contains the draft Indian proposal of March 31, 1990 entitled 'Agreement between the Government of India and His Majesty's Government of Nepal on Mutual Co-operation'

10 See Baral Commission Report, ibid.

11 Information from delegation members who were told to come down for breakfast packed for departure while the two prime ministers had a one-on-one meeting. It is said that upon assurances from his bureaucrats that such an 'understanding' would not need to be presented to parliament that prime minister Koirala decided to initial such an 'understanding' on Tanakpur

12 Report in *Nepal Post*: 'Tanakpur Now To Be Resolved in Jakarta?', August 2, 1992.

13 See *Punarjagaran*: 'Ganesh Man Singh's Historic Letter – There is No Alternative to National Consensus', March 9, 1993.

14 See *Hindu Dainik*, 'Allegations that Speaker is the Opposition', September 3, 1992.

15 See editorial in *Suruchi Saptahik*, 'Need for Understanding in Water Resources Development', December 26, 1993.

16 See *Gorkhapatra*: 'Nepal-India Relations – Signing of the Water Resources Development Action Plan', December 29, 1993.

17 See interview: 'I Turned Down Mrs Gandhi's Request' in *Crosslines*, February 2-8, 1998, Kathmandu.

18 The members who put their signature on the so-called 'national consensus' were: Madhav Kumar Nepal and Khadga Prasad Oli of the UML (who are with the Bolshevik UML and not the Menshevik ML); Prakash Chandra Lohani (then foreign minister) and Pashupati Sumsher Rana (then water resources minister) of the RPP (both of whom subsequently became part of the Thapa faction of the RPP as opposed to the Chand faction); and Chiranjivi Wagle and Bimalendra Nidhi of the Nepali Congress (both known to be of the anti-Koirala Chhattise camp ('Group of 36', which abstained from voting and led to the fall of the Koirala ministry).

19 The wordings of Article 3 of the Treaty: "...and hence both the parties agree that they have equal entitlement in the utilisation of the waters of the Mahakali rivers without prejudice to their respective existing consumptive uses of the waters of the Mahakali river". Paragraph 3 of Article 3 of the Treaty: "The cost of the project shall be bourne by the Parties in proportion to the benefits accruing to them...". Clause 3 of the exchanged letters: "It is understood that Paragraph 3 of Article 3 of the Treaty precludes the claim, in any form, by either party on the unutilised portion of the shares of the waters of the Mahakali River of that Party without affecting the provision of the withdrawal of the respective shares of the waters of the Mahakali River by each party under this Treaty." This wording basically prevents Nepal from claiming financial benefits from its equal entitlement of the waters of the border river if it does not use it within Nepal and allows it to flow downstream.

20 August 29, 1996 *Samakalin* and August 31, 1996 *Janasatta*.

21 This was the issue that led to the item in the parliamentary stricture, during the Treaty's ratification, about the status of the Mahakali (of where and how it is a border river).

22 September 4, 1996 *Jana Aashtha*, September 6, 1996 *Bimarsha*, September 10, 1996 *Drishti*, September 17, 1996 Drishti. See also Keshav Lal Shrestha 1996: '*Mahakali Sandhi Ra Rashtriya Heet Ko Sawal*', Kathmandu.

23 September 21-30, 1996 *Himalaya Times*, *Prakash Weekly*, etc.

24 As per voting records in the joint session of both the houses (total strength of 206+60 members), UML chairman was absent, eight MPs voted against the Treaty (3 from UML, 3 from Workers and Peasants' Party, and 2 from Masal), 31 MPs abstained (26 from UML, 1 from RPP, and 4 nominated members of the King), and 220 MPs voted in favour of the Treaty.

25 See *WATER NEPAL*, vol 6, no 1, July 1998.

26 What exactly is the DPR or when and how it should be completed are points of intense debate. Water resources minister (at the time of the Treaty) Pashupati Rana mentioned in an interview to *Kathmandu Post* of January 21, 1997 stated: "The DPR on the Pancheshwar was all ready at the time the Treaty was signed". He also said in the same interview that the Nepali version of the DPR had been sent to India but that India had not responded, and that the formal instruments of ratification of the Treaty had not been exchanged between the two governments and was expected to be done during the forthcoming Nepal visit of Indian prime minister H D Deve Gowda. On the other hand, in a separate interview to *Kathmandu Post* on April 25, 1997, foreign minister Prakash Chandra Lohani stated that HMG had formally informed India of the passage of the Treaty together with the sankalpa prastav already in November 1996!

27 October 11, 1996 *Himalaya Times*.

28 November 19, 1996 *Gorkhapatra*. Also *Himalaya Times* of November 24, 1996.

29 See 'Minutes of the Second Meeting of the Joint Team of Experts of Nepal and India on the Sapta Kosi High Dam Multipurpose Project (Nepal) held in Kathmandu, Nepal on January 7-9, 1997'.

30 Dahal, R, 1998: 'As Enron Came, It Went, *Himal South Asia*, Kathmandu.

31 Kedar Subedi, 'Maha Adhiveshan Ma Emale Le Ke Payo, Ke Gumayo' in *Saptahik Bimarsha* of February 6, 1998. Subedi claims to be quoting Gautam's reply in parliament on West Seti.

32 *The Kathmandu Post*, March 28, 1997.

33 April 21, 1997 *Kantipur*.

34 In *Tarun Rashtriya Saptahik*, June 16, 1997.

35 News and photo published in *Punarjagaran* of July 29, 1997.

36 The representatives at this meeting are Ram Sharan Mahat, Govinda Raj Joshi and Binayak Bhadra from the Nepali Congress, Khadga Prasad Oli, Jhalanath Khanal and Bim Rawal from UML, and Kamal Thapa, Sarbendra Nath Shukla and Rajiv Parajuli from the RPP (August 4, 1997, Kantipur).

37 September 18, 1997, Kantipur. See also A Dixit, 1997: *Mahakali Sajha Ho Pani adha Ko Adha Ho*, in Mulyankan and D Gyawali 1997: *Mahakali Sandhi – Aba Ke Garne?* in *Nepali Himal* of May/June.

38 December 15, 1997, *The Kathmandu Post*.

39 May 20, 1998, *Kantipur*.

40 See interview in *Budhabar Weekly* with Rishikesh Shah: 'Kalapani Ma Bharatiya Fauj Rakhna Diekai Raja Mahendra Le Ho', July 29, 1998.

41 *Kathmandu Post* of August 3, 1998. It is surprising that this issue was raised because Pashupati Sumsher Rana, in an interview with *Himalaya Times* when asked if Enron had gone back because of his intransigence, replied that he was willing to give the survey license to Enron provided the issue of downstream benefits ("which would extend all the way to Bangladesh") could be resolved before the production license would be given (*Himalaya Times*, May 10, 1998).

42 August 8, 1998, *The Kathmandu Post*.

43 September 17, 1998, *Samakalin*.

44 See *Gorkhapatra*: 'I am having a difficult time because of the 'water mafia''; of November 29, 1998.

45 November 6, 1998, *Kantipur*.

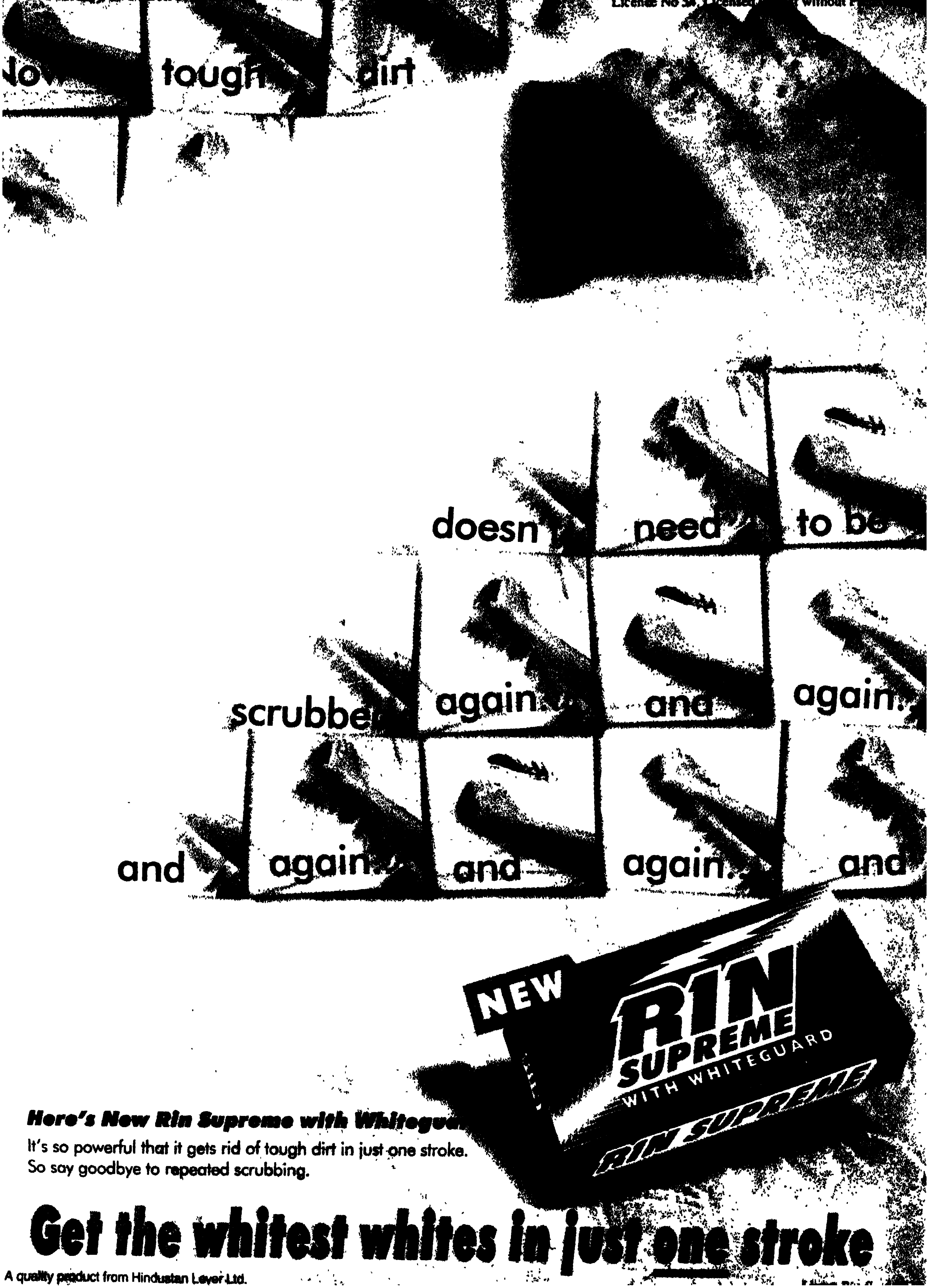
46 See Khanal, Jalanath 1998: 'One Visit Many Benefits' in UML party monthly *Navayug*, Mangsir (November/December), Kathmandu. The UML was heavily criticised for this action by both the eight left as well as right parties

47 See *Kantipur*: 'Decision to Speedily Prepare the DPR of Pancheshwar', January 2, 1999, Kathmandu.

48 See *Mulyankan* 1999: 'Why Does An Election Government Want To Implement the Mahakali Treaty?', of Poush (December/January), Kathmandu.

49 For discussion of pitfalls in water-led development strategy for Nepal see P J Thapa, 1997: 'Water-led Development in Nepal – Myths, Limitations and Rational Concerns', *WATER NEPAL*, vol 5, no 1, July, Kathmandu. Also Dhungel's examination of the Dutch Disease impact on Paraguay's economy with Itaipu and Yacyreta mega-hydroelectric projects are instructive in this regards. See H Dhungel 1996: 'Macro-economic Adjustments to Large Energy Investments in a Small Controlled Open Economy – A Policy Analysis of Hydropower Development in Paraguay'; unpublished PhD dissertation, University of Pennsylvania.

50 See interview with Shah in *Budhabar Weekly*, ibid.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Globalisation and Seed Security

There are high social and ecological costs linked to globalisation of non-sustainable agriculture which have been experienced in all commercially grown and chemically farmed crops in all regions. An attempt to understand corporate control over genetically-engineered crops heralding a new phase in the seed industry and to expose the threat posed to seed security by probing the case of transgenic cotton trials in India. 601

The UPOV system seeks to protect the interests of powerful seed companies, whereas our laws should focus on the interests of farmers as producers and consumers of seed. An alternative treaty being discussed currently would provide a forum for developing countries to secure their farmers' and breeders' rights. 579

Education in 1999-2000 Budget

A major component of the 'National Human Development Initiative' announced in the Budget for 1999-2000 is education, which is also one of the items of the prime minister's Special Action Plan. Do the programmes and financial resource allocations proposed in the Budget match these high sentiments? 614

Reproductive Health Care among Muslim Women

Reproductive health practices among Muslim women in India have been little researched, perhaps because of the notion of tight Islamic control over sexual behaviour and sanctions against contraceptive use. Findings of a study among Nagori women in Rajasthan yield useful information which can help in the construction of an appropriate health care package. 621

Public-Private Partnership for Urban Poor

While the case for public-private partnership for development for the urban poor would seem self-evident, in the absence of a comprehensive institutional framework, government and private organisations in India do not see the rationale of working together. The experience of the Slum Networking Project in Ahmedabad shows the difficulties of working with government organisations and points to the preconditions for a workable private-public partnership for implementing projects for the urban poor. 636

Empowerment

Can the belief that quotas on the basis of community, caste and gender, no matter how extensive, can by themselves bring about a radical, or even a perceptible, redistribution of power be anything more than wishful thinking? 589

Mirror Politics

With the immediate danger of a possible ban now behind us, it is necessary to go beyond identifying good and bad images of women to investigate the critique of patriarchy that a film like 'Fire' provides and the characterisation of the feminist self that it makes available. 581

State vs Market

Policy-makers and academicians from India and Russia met in a joint seminar in Calcutta in last December to discuss the similarities and differences in the situation of the two countries at the start of their economic reforms and their experience of the reforms. 585

Development and Displacement

Instead of appreciating that a conscious, articulate and rational population is a great national asset which is essential for democracy to take root in any society, the government in Orissa is treating every dissent as defiance and every assertion as insurrection. Findings of a study team to report on the situation arising from the acquisition by the state government of a large tract of agricultural land belonging to tribals for an alumina plant. 576

Tangled Thread

The government's decision to allow free import of Chinese silk yarn has depressed prices of local yarn and adversely affected silk growers who lack the wherewithal to improve the quality of their yarn. 578

Right Money

The monetary aggregation procedure in India bears re-examination in the context of the new monetary aggregates proposed by the Reserve Bank's Working Group. 631

Urdu and Its Future in India

RALPH RUSSELL (*EPW*, January 2-9, 1999) has wisely put the protagonists of Urdu in India in the dock for depending solely on government and administration, sitting with folded hands and not doing what they can themselves do for preserving and promoting their language and for beating their breast and whining before the powers-that-be, instead of counting their blessings and taking advantage of the favourable and positive factors.

No one who has the good and the future of Urdu in his heart can find fault with Russell's sincere and practical approach but I feel that his approach is somewhat divorced from the ground reality in India and is based on certain questionable assumptions.

Urdu is not synonymous in India with Muslim Indians as only 50-60 per cent of the Muslim population has declared Urdu as its mother tongue. But the circle of Urdu as a pan-religious language has been shrinking since independence and today perhaps 99 per cent of those who declare Urdu as their mother tongue are Muslims. And Muslim Indians face deprivation, rejection and frustration in many ways and so does Urdu because, in the eyes of the policy-makers, whatever Gopi Chand Narang, Jagannath Azad and Balraj Krishan may say, Urdu is the Muslim language and deserves similar rejection and deprivation.

To clear the air, let me say that Urdu without its script is not Urdu; it becomes a style of Hindi; perhaps one of its many dialects which Hindi embraces and which demographically fill its coffers and turn it into the National Language, the most widely spoken and written and understood language and, therefore, the link language. In this connection, I would like to draw Russell's attention to my article in the *Mainstream* of December 20, 1997. So preserving and promoting Urdu means Urdu with its own script which, as Ali Sardar Jafri once corrected me, is not Arabic or Persian but Urdu. If this is so, the favourable factors like use of Urdu in film songs and dialogues, wider audience in Dev Nagri script or in English translation, and the use of a Hindi-Urdu mix in everyday communication across the country are of not much consequence for the future of Urdu.

Urdu without its script will die out faster because Urdu, unlike European languages with a common Roman script and Indian languages with a common Dev Nagri script, has no homeland. Moreover, Urdu in Dev Nagri will be isolated from the international stream of Urdu which washes, apart from Pakistan, the Gulf, the UK and the US. This, in the long run, will be a loss to Urdu. Also Urdu will be totally cut off from its valuable heritage, as it is not possible to rewrite all the classical and the modern works in Dev Nagri.

Urdu in India is a victim of Partition like the Muslim community is. Unlike Athar Farooque, I do not regard the Urdu-speaking supporters of Congress or, for that matter, any political party as renegades to the cause of Urdu. I, however, know that many eminent 'supporters' of Urdu have prospered as the self-appointed Mujawirs of the Mazar-e-Urdu, serving as the smokescreen for the official indifference and rejection and as the drumbeaters of the generosity of the sarkar.

The state has done precious little for Urdu except opening departments of Urdu (sometimes with Arabic and Persian, as if Urdu was a classical language) in universities – thus setting the cycle of illiteracy into motion, to borrow Shamsur Rahman Farooqui's meaningful phrase. But having filled the departments, the Urdu PhDs, not to speak of MAs, have nowhere to go; Urdu qualification is not a marketable commodity; it is a certificate of unemployability. In any case, the cycle is now grinding to a halt.

No doubt, the central government set up the Bureau for the Promotion of Urdu, now rechristened as the National Council. I wish the Bureau/Council would publish an annual report on its achievements. I largely endorse what Aliq Ahmad Siddiqui has said on the basis of my endeavour of over 15 years in parliament to get it moving. But while the allocations have been misused or wasted, what is important is that, as compared to Hindi or any other national language, even Sanskrit, Urdu allocation have been very poor. The Bureau/Council is meant not to promote Urdu but to put the Urduwallah's conscience to sleep.

The real issue is the place of Urdu in education for Urdu-speaking children. Russell has correctly highlighted the distortion of the Three Language Formula by virtually ousting Urdu from its legitimate place as the First Language for those whose mother tongue is Urdu, then omitting it even as the Second or the Third Language. Except in Bihar, the formula has been reduced to Hindi, Sanskrit and English. But what is even more important is the non-use of Urdu as the medium of primary instruction, despite the constitutional mandate and the educational imperative. This right has been denied to Urdu-speaking children. Considering that 90 per cent of primary instruction is through government or municipal schools, it is no wonder that when the roots are cut, the watering of the leaves cannot prevent withering. The Urdu-speaking community has to struggle against this denial, along with other linguistic minorities in every state. This they have failed to do so far.

Urdu is not a foreign language brought to India by immigrants; it was born in India. Hence the rights and duties of the Urdu-speaking community cannot be equated with those of an immigrant community, say, in UK, as Russell has done. However, in the face of deprivation and denial, the Urdu-speaking community should have done everything possible to teach Urdu to its children, outside the school or the classroom. Hence I endorse what Russell has said about the indifference of the Urdu community in India whose children, today, cannot even correspond with their parents and cannot pronounce 'sheen' and 'Qaf' correctly.

I do not wish to rationalise this failure but the fact is that the community is too poor to run Urdu schools or classes. Also, the expanding circle of education has brought in first generation learners whose parents do not quite see what they are missing. Thirdly, in a developing economy like India, the state is the provider of education. Indeed the Constitution places this responsibility squarely on the state for all children up to the age of 14. Education has now been declared a Fundamental Right by the Supreme Court. The Urdu-speaking community cannot be expected to run a parallel school system or abdicate its rights.

Since Muslim children in many places attend maktabs to learn to read the Quran and to be taught the basic religious duties of a Muslim like namaz, sometimes along with the primary schools but also sometime as a substitute thereof, the local communities have arranged the teaching of Urdu in such maktabs. This certainly does not introduce children to Urdu literature but opens the doors for reading Urdu newspapers, magazines and books, if one has the time and the inclination. If Urdu is still alive despite suffocation in the Hindi belt, it is largely due to such utilisation of the maktab-madarsa system. Given the situation, I would not have Urdu expelled from the madarsa milieu, when I have no alternative to offer.

Finally, Russell has blamed Jagjivan Ram for opposition to implementation of the recommendations of the Gujral Report on Urdu. I am not aware of it. It is unfortunate that the Report has been largely gathering dust even though its author himself once headed the government, naturally with resurgence of hopes and expectations in the Urdu community which were belied. It is not a question of an individual, of Nehru, Zakir Husain and Gujral not doing what they sincerely wanted to do for Urdu; it is post-Partition politics and the identification of Urdu with Pakistan and Islam in the mass mind.

SYED SHAHABUDDIN

New Delhi

A Test Case

THE government's knee-jerk response to the Telecom Regulatory Authority's maiden attempt to fix telephone tariffs in demanding that the tariffs, which were to come into force from April 1, be put on hold is most unfortunate of course, but was perhaps to be expected given the sarkar's deep-rooted perception of itself as the fountainhead of all wisdom and benevolence. Though Mamata Banerjee's Trinamul Congress walked out of the Lok Sabha and threatened to continue to boycott the house if the TRAI's tariffs were not withdrawn, this was certainly not a case of the government, as in some other instances, succumbing to pressure from one of the smaller parties constituting the ruling coalition. Jagmohan, the minister for communications, it is clear, was waiting to crack the whip on the TRAI and Mamata Banerjee's histrionics provided just the cue he was waiting for to announce that "the government has decided to give policy directives to the TRAI to keep its proposals in abeyance". Perversely enough, the minister was supported by the entire opposition, including the Congress.

The government's action in staying the tariffs fixed by the TRAI cuts at the roots of the proclaimed policy reforms in respect of the infrastructure sectors, whether telecommunications or power or insurance, with the objective of efficient expansion of supplies and services through the induction of large new investment, advanced technology and, most important of all, competition. To attract potential competitors to the deeply-entrenched government organisations in these sectors, it was essential to hold out the assurance of level playing fields and towards that end the policy-making function of the government in these areas had to be separated from control over the parameters of the commercial operation of different suppliers and service-providers, which task was to be handed over to statutory bodies which were to be entirely free of government control in the areas of authority assigned to them. The setting up of the TRAI by an act of parliament at the beginning of 1997 was based on these admirable considerations. Under the relevant statute the TRAI has been assigned absolute power to fix telecom tariffs.

The merits of the new tariffs worked out by the TRAI apart, it cannot be denied that for the first time the whole process of fixing telephone charges has been conducted through public consultation and discussion extending over a whole year. In its order fixing the new tariffs the TRAI has set out the economic rationale and the basic premises of its decisions. The TRAI has also said that the new tariffs are being introduced on an experimental basis and their impact would be closely watched over a period of a year and changes made thereafter if found necessary. This open and transparent way of decision-making is certainly a world apart from that of the closed-door working of the bureaucracy and its vassal organisations. The argument that the TRAI's cost-based rebalancing of telecom tariffs by moderately raising phone rentals in rural areas and reducing STD and ISD call charges by phases over a three-year period offends equity considerations is without any basis. Quite apart from how much of a role the politician's ever-bleeding heart should legitimately play in decisions on the pricing of a service such as telecom, the known facts about the significant use of rural phones for making STD calls as well as the high proportion of STD/ISD calls in urban areas made from public call offices would suggest that the TRAI's attempt to make tariffs reflect better the actual costs of providing different services is not quite a conspiracy to rob the 'poor' and give to the 'rich' as it has been made out to be.

The inspiration for the opposition to the TRAI's tariffs is obviously different: it is really an amalgam, on the one hand, of the politician-bureaucrat combine's unwillingness to accept that something which was once such a coveted part its domain as the authority to decide on the pricing of telecom services is being taken away from it and, on the other, of the Department of Telecommunications' misguided effort to stack the cards in its favour as much as possible before the day of reckoning – when it has to face competition from private service-providers – even at the cost of jeopardising the basic objectives of telecom restructuring, which attitude is so manifestly in evidence also in the government's obdurate refusal to look beyond its nose in the matter of licence fees payable by private operators. In the present instance, it is typical of the mind-set of a government department that, in assessing the impact on itself of the tariffs fixed by the TRAI, the DOT virtually rules out all possibilities both of lowering of costs with newer technologies and improved efficiency and of expansion of demand as a result of reduced charges.

Clearly, the government's decision on the tariffs fixed by the TRAI will have long-term consequences for the growth of telecom services in the country through the entry of new service-providers, the induction of the latest technologies and greater efficiency through competition. Equally, the denouement here will be decisive for the changes that are under way or are being initiated in other critical sectors such as power and insurance. This is a fit case, therefore, for the prime minister to act to curb his minister for communications who, as we know from his previous incarnations in public office, has a penchant for acting the commissar. The leadership of the Congress, as the party in waiting to form the next government, has a similar responsibility to ensure that it does not adopt or encourage irresponsible and shortsighted postures in parliament just to embarrass the government.

NARMADA

Missed Opportunity

BY allowing the resumption of work on the Sardar Sarovar project, all that the Supreme Court has achieved is show its disinclination to play a pioneering role in setting precedents for facilitating the real involvement of people in development issues. The ruling, it may be recalled, was on a public interest litigation filed in 1955 by the Narmada Bachao Andolan (NBA), which is spearheading the protest movement of people who will be dispossessed by the project. Construction work was suspended at the site when the hearings began. The court has now permitted the height of the dam to be raised from 80.3 metres to 85 metres. It has, however, constituted a grievance redressal committee under retired Supreme Court justice P D Desai to submit, before April 9, a report on the status of rehabilitation of the oustees resettled so far.

The ruling appears to have resolved neither the immediate nor the fundamental issues that had been raised. Given that the Narmada project has been the subject of so many commissions and enquiries, it will be too optimistic to hope that the new committee will be able to arrive at any firm conclusions within the six weeks it has been given. More specifically, it has been asked to go over the same ground covered by another committee that the apex court itself had set up after restructuring an existing committee which had been constituted by the centre in 1993. The committee is known to have pointed to several serious difficulties in satisfactorily rehabilitating the displaced, but the court has chosen to keep its report under wraps instead of offering it for public scrutiny. Many of these problems have repeatedly come up before the court in the course of the last four years. The Madhya Pradesh government in its affidavit has pointed out that the sites for resettlement offered by the Gujarat government to those who would be displaced if the height of the dam was raised to 85 metres are not suitable ones. Interestingly, the Narmada Disputes Tribunal mandates that the oustees should be identified a full year before the submergence is due to occur. This has not been done for those who will be displaced this monsoon if the height of the dam is raised to 85 metres. The court appears to have been keen to dispose of the case rather than achieve any significant progress on the Narmada issue. As the court was no doubt aware, the Narmada project authorities acknowledge that the dam would become useful in terms of provision of irrigation water and generation of electricity only when it is over 110 metres high. In sum, the permission to raise the height of the dam to 85 metres is really a gesture in favour of the project. The court has also taken a stand on the issue of rehabilitation, stating somewhat facilely that displacement and resettlement are inevitable consequences.

In focusing on the immediate problems of the dispossessed, the fundamental issues that critics of the current development model have been raising with respect to large dam projects have failed to be addressed. Had the hearings of the World Commission on Large Dams been allowed to take place, it may have yielded a platform for wide-ranging public debate on some of these issues. The Supreme Court could have created such an opportunity by declaring that the Narmada issue can only be decided by a well-organised public enquiry. There is a precedent for such a course – the Supreme Court had ordered a public enquiry on whether the pharmaceutical product EP forte should be banned. This is in fact the manner in which public projects are decided upon in many countries, such as the UK. It is unfortunate that instead of exploring these vital long-term possibilities, a short-term view has been taken of what is after all one of the most significant issues of our times.

THE BUDGET

More Tokenism

Madhav Godbole writes:

UNLIKE elsewhere in the world, the presentation of the annual financial statement of the government has become a media event in India. The other striking feature is the influence which the chambers of commerce and industry seem to wield as compared with the contribution of the sector to GDP. India Inc is in evidence for weeks preceding and following the budget. Now that all the media hype is over, it is time to take stock where the budget presented by Yashwant Sinha has failed the country. The ingenious arithmetic used to artificially bring down the estimated fiscal deficit for the year shows the inability of the government to address complex issues. The interests of the states and the centre are diametrically opposite so far as mobilisation of small savings (SS) is concerned. Small savings is a major resource for funding the annual plans of the states However, the centre has been keen on keeping its fiscal deficit low. As a result, a number of disincentives have been introduced, from time to time, to bring down SS. This conflict of interest has to be addressed, if the interests of the states are not to be undermined. Merely leaving the SS out while computing fiscal deficit will not be enough.

The recommendation of the Tenth Finance Commission regarding devolution of 29 per cent of the proceeds of all central taxes to states is yet to be given effect to. The states will have to be given their larger share of devolution with retrospective effect in 1999-2000. The budget does not take note of the fund requirements for this purpose. The fiscal situation is so desperate that, like a drowning person, we are literally prepared to clutch at straws. A great deal was, therefore, made of the fact that the words "downsizing the government" were used by the finance minister for the first time! Tokenism has come to be the hallmark of all our national efforts. It was not therefore surprising that this so-called downsizing of the government has started and ended with abolition of four posts of special secretaries.

The proposal to set up an expenditure commission leaves one with a feeling of deja vu. A similar announcement was made by another finance minister, P Chidambaram, in his supposed 'dream budget' two years ago. The idea met with stiff resistance within the United Front itself and the commission remained on paper. Even if the present government's initiative meets with better luck, it is doubtful if the next government which comes to power will look at it kindly. It is worth recalling that the short-lived Charan Singh government had taken a similar initiative, but as soon as the Indira Gandhi government came to power in 1978 one of the first decisions which was announced by the then finance minister, R Venkataraman, was to disband the commission!

A great deal of the professed larger outlay for the rural sector is old wine. No tears need be shed over the renaming of certain schemes, but the BJP had to find a scheme to name after its own Deen Dayal Upadhyaya. The budget has taken hardly any new initiative to tax the services sector which is the fastest growing sector of the economy. The finance minister has once again skirted the issues of a statutory ceiling on government borrowing, a similar ceiling on government guarantees, laying down of a specific time-frame for reduction of the fiscal deficit below 3 per cent, privatisation of public sector undertakings, exit policy, amendment of outdated laws and improving the legal system in the country. The list is unend-

ing. If these and other pressing issues are to be addressed, government must have a long enough time perspective. We cannot afford to live from one budget to another.

SMALL SAVINGS

Not the Whole Story

PRACTICALLY all sections of the media have commented on the manner in which finance minister Yashwant Sinha has managed to reduce the centre's fiscal deficit by Rs 25,000 crore in the coming year by deciding that all small savings collections would hereafter be routed through a separate National Small Savings Fund in the Public Account. Thus the 75 per cent states' share of net small savings collections will be transferred to the states from the new fund without entering the central budget and only the remaining 25 per cent will appear as capital receipts of the central government.

In his budget speech, the finance minister has defended this decision to delink small savings from the union budget in the context of the demand made at the recent meeting of the Interstate Council for devising an accounting procedure whereby the share of small savings collections to which the states are entitled does not have to be reflected in the centre's fiscal deficit. What Yashwant Sinha omitted to mention, however, was that the states had made this proposal with a specific purpose in mind. They were protesting against the recent decision of the centre reducing interest rates on various small savings schemes as from the beginning of January and ordering a three-week freeze on small savings collections. Various states had individually protested to the prime minister against this move and also raised the issue at the Interstate Council as well as the National Development Council, saying that if the centre was so keen on reducing its fiscal deficit it should not do so at the expense of the states. The states were naturally resentful that the centre should have taken a decision on a matter of major interest to them – with as much as three-fourths of the net collections from small savings going to them – totally disregarding how it would impact the finances of state governments. There is no indication in the finance minister's budget speech or in his public statements thereafter that he has acceded to the demand of the states to restore the attractiveness of the various small savings schemes, interest rates on which had been lowered by the centre earlier and also to desist from taking decisions unilaterally in this matter in future.

It has also been a long-standing argument of state governments that the terms and conditions on which the states are given their share of net small savings collections are harsh and bear no relation to the cost the central government has to incur on these collections. Now that the centre has decided to create a separate National Small Savings Fund from which the centre and states would draw their respective shares, it is only appropriate that the cost of the borrowing represented by these collections should not fall disproportionately on the states. There is absolutely no ground, moral or economic, that entitles the centre to a special advantage over the states in this regard. All such matters should fall in the domain of the National Development Council and decisions must be taken only through the Council or its Standing Committee.

KARNATAKA

Crisis of Powerlessness

THE Janata Dal appears to be striving to demonstrate that internal power struggles (or shall we call them squabbles?) are most intense when there is the least to be gained. For a government which has barely six months in office, and a party which is on the brink of an election which will in all likelihood wipe it out, the Janata Dal in Karnataka is remarkably complacent. No one, least of all the chief minister, appears to be concerned with the deteriorating administration and lack of governance in the state. If the fact that there is a crisis in governance in Karnataka is not widely acknowledged, it is only because it has not manifested, yet, in a major breakdown of the law and order situation. But there is enough evidence that the lack of administration is striking at significant developmental gains that the state had made in the past. And the fault lies not only in the manner in which the ruling party has been conducting itself but in the almost pathological inability of the state's major political parties to act responsibly. It is not a chance occurrence that the state has not had a stable chief minister for a long time.

There have been tensions within the ruling party in the state for a long time. Even at the time when H D Deve Gowda became prime minister and the Dal agreed to Gowda's choice of his successor, the tensions were evident. Gowda's sons, who subsequently joined the state cabinet, were evidently his caretakers, keeping watch over Patel. But Patel proved to be no stooge, nor unfortunately a very able or efficient chief minister. And once Gowda came back to his home state, administration has practically ceased to function. Even so it is to Patel's credit that his government has dealt with the several episodes of communal tension, including the recent one in coastal Karnataka, firmly.

On Gowda's demand the central leadership of the party forced Patel to expand his ministry to counter caste disgruntlement – the vokkaligas it was felt needed a greater say in the cabinet. This was also meant to ensure that more of Gowda's supporters got cabinet berths. But Patel not only expanded his cabinet but reshuffled it so that some senior former ministers were demoted. This has led to some resignations which may become a flow, with Gowda's supporters even suggesting that they would rather the Patel government fell than continue to work under his leadership. And there is no doubt that it will, unless support comes from unexpected quarters.

It is not as if the other major parties in the state are in any position to take on the tasks of government. The state Congress has just seen a change of leadership, with the duly elected Dharam Singh, a backward class leader, being asked by the central leadership to step down in favour of S M Krishna, a former central minister and a vokkaliga. With this the Congress hopes to tap the caste votes, but leaves the lingayats more or less in the BJP fold, especially with the Janata Dal (and Patel) losing electoral appeal. However, the Congress is far from being ready for a quick election. It would much rather consolidate its bases in the six months now available. So it is unlikely to support any move to bring down the government. Similarly, the BJP has not done too well of late and will need to make recalculations about its minuscule non-urban base and is therefore none too keen to face an election. While neither party will want to be seen as propping up any faction of the current government, they may not be too keen on its collapse. In Karnataka today there is unfortunately no party which is quite ready to take on the reins of government nor for that matter even to propel the government to act by playing a responsible role on the opposition benches. This has had serious consequences for development projects in the state. Karnataka is on the verge of a power crisis and the power reforms bill has, as so many others, been waiting on the sidelines. It is an all-round crisis of powerlessness brought on by petty power politics.

On the eve of the central budget, macro-economic indicators pointed to the persistence of low real economic activities. The depressed state of the manufacturing sector, exports and the capital market has now continued for the third year in succession. The operations of the monetary sector and banks reflect co-existence of abundance of liquidity with low real economic activity M_3 growth has continued to accelerate, but growth in bank credit to the commercial sector, including in the form of investments, has sharply decelerated. The exchange rate has remained stable The annual rate of increase in the prices of manufactures has been subdued.

Macroeconomic Indicators

Index Numbers of Wholesale Prices (1981-82 = 100)	Weights	Feb 20, 1999	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
All Commodities	100.00	354.1	0.1	5.1	4.7	5.0	5.2	5.3	6.9	5.0	10.4
Primary Articles	32.30	382.0	–0.3	9.1	4.1	9.8	6.2	5.5	7.0	5.4	12.7
Food Articles	17.39	439.1	–0.1	10.2	2.4	11.7	5.5	4.0	9.6	9.8	11.9
Non-Food Articles	10.08	389.8	–0.5	10.0	7.3	9.4	7.9	8.5	3.5	–1.9	15.5
Fuel, Power, Light and Lubricants	10.66	376.2	0.6	–0.5	10.2	–2.1	9.6	11.4	16.9	3.7	2.4
Manufactured Products	57.04	334.1	0.1	3.9	4.0	3.7	3.7	4.0	4.9	5.0	10.7
Food Products	10.14	341.8	–0.5	5.0	5.5	4.9	5.4	5.5	14.1	–0.7	8.1
Food Index (computed)	27.53	403.3	–0.2	8.5	3.4	9.5	5.4	4.5	11.1	6.3	10.6
All Commodities (Average Basis) (April 4, 1998 - February 20, 1999)	100.00	352.2	–	6.9	5.0	7.1	4.8	4.8	6.4	7.8	10.9

Cost of Living Indices	Latest Month	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
Industrial Workers (1982=100)	429.0[12]	–2.1	15.3	6.3	12.9	6 0	8.3	10.0	8.9	9.7
Urban Non-Man Emp (1984-85=100)	342.0[1]	–0.9	9.3	7.6	9.6	7.6	7.2	10.2	8.2	9.9
Agri Lab (1986-87=100) (Link factor 5.89)	299.0[1]	–2.0	9.1	4.6	9.9	4.6	3.8	10.5	7.2	11.1

Money and Banking (Rs crore)	Feb 12, 1999	Variation: Over Month	Over Year	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96
Money Supply (M_3)	944123	9457(1.0)	154789(19.6)	118733(14.4)	87486(12.5)	123451(17.6)	97841(16.2)	72581(13.7)
Currency with Public	170204	3049(1.8)	22829(15.5)	25021(17.2)	15288(11.6)	13095(9.9)	13829(11.7)	17577(17.5)
Deposit with Banks	770824@	6658(0.9)	131830(20.6)	94221(13.9)	72427(12.8)	110036(19.4)	84162(17.5)	55042(12.9)
Net Bank Credit to Govt	386672	4036(1.1)	68927(21.7)	56053(17.0)	29125(10.1)	42000(14 6)	30840(12.0)	35360(15.9)
Bank Credit to Comml Sector	463663	–2125(–0.5)	48898(11.8)	31473(7.3)	38458(10.2)	55883(14.9)	31659(9.2)	51925(17.7)
Net Foreign Exchange Assets	140911	1133(0.8)	23784(20.3)	14341(11.3)	11631(11.0)	21072(20.0)	23356(28.4)	3109(3.9)
Reserve Money (Feb 26)	248512	4410(1.8)	36034(17.0)	22279(9.8)	12492(6.2)	26248(13.1)	5527(2.8)	25176(14.9)
Net RBI Credit to Centre	152696	2201(1.5)	23262(18.0)	19079(14.3)	8732(7.2)	12915(10.7)	1934(1.6)	19855(20.1)
RBI Credit to Bks/Comm Sector	19851	–367(–1.8)	5340(36.8)	4569(29 9)	1258(9.5)	2029(15.3)	–15557(–54 0)	8747(43.6)
Scheduled Commercial Banks (Feb 26)								
Deposits	695207	4938(0.7)	114893(19.8)	89797(14.8)	74715(14 8)	99811(19.7)	71780(16.5)	46960(12.1)
Advances	352047	2218(0.6)	38592(12.3)	27968(8.6)	35054(12.6)	45677(16.4)	24386(9.6)	42455(20.1)
Non-Food Advances	334711	1938(0.6)	34123(11.4)	23117(7.4)	29783(11.0)	40790(15.1)	26580(10 9)	44938(22.5)
Investments (for SLR purposes)	252569	1563(0.6)	37859(17.6)	33864(15.5)	24196(12.7)	28192(14.8)	25731(15.6)	15529(10.4)
Commercial Investments	46877	184(0.4)	12798(37.6)	14965(46.9)	15595(84.4)	13673(70.4)	4412(29.4)	925(6.6)

@ Includes Rs 17,945 crore on account of proceeds from RIBs, excluding which the year-on-year growth of money supply would be 17.3 per cent.

Index Numbers of Industrial Production (1993-94=100)	Weights	December 1998	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Full Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
General Index	100.00	150.0	139.2(3.5)	134.5(6.7)	137.6(6.6)	129.0(5.5)	122.3(12.8)	108.4(8.4)
Mining and Quarrying	10.47	127.0	117.3(–1.1)	118.6(5.5)	122.4(5.9)	115.6(–2.0)	117.9(9.6)	107.5(7.6)
Manufacturing	79.36	154.0	142.6(3.7)	137.5(6.9)	140.5(6.7)	131.8(6.7)	123.5(13.8)	108.5(8.5)
Electricity	10.17	142.4	135.8(6.6)	127.4(6.0)	130.0(6.7)	121.9(3.9)	117.3(8.1)	108.5(8.5)

Capital Market	March 12, 1999	Month Ago	Year Ago	1998-99 So Far: Trough	1998-99 So Far: Peak	1997-98: Trough	1997-98: Peak	End of Fiscal Year: 1997-98	1996-97	1995-96
BSE Sensitive Index (1978-79=100)	3703(–1.3)	3337	3752(–0.3)	2783	4281	3210	4548	3893(15.8)	3361(–0.2)	3367(3.3)
BSE-100 (1983-84=100)	1619(–0.1)	1468	1620(–0.7)	1242	1890	1401	1980	1697(15.9)	1464(–5.5)	1549(–3.5)
BSE-200 (1989-90=100)	372(4.0)	340	358(–1.6)	289	429	314	440	377(14.9)	328(–5.0)	345(–6.3)
S and P CNX-50 (Nov 3, 1995=1000)	1073(–1.0)	970	1083(0.8)	812	1213	941	1140	1117(15.4)	968	na
Skindia GDR Index (Jan 2, 1995=1000)	632(–33.4)	610	949	515	1015	765	1320	940(1.1)	930(–4.4)	973(–0.6)

Foreign Trade	January 1999	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
Exports: Rs crore	12130	114045(10.1)	103597(7 4)	126286(6.3)	118817(11.7)	106353(28.6)	82674(18.5)
US $ mn	2854	27111(–3.7)	28158(3.4)	33980(2.6)	33470(5.3)	31797(20.8)	26330(18.4)
Imports: Rs crore	14263	146774(18.4)	123964(11.0)	151554(9.1)	138920(13.2)	122678(36.3)	89971(23.1)
US $ mn	3356	34892(3.6)	33694(6.9)	40779(5.8)	39132(6.7)	36678(28.0)	28654(22.9)
Non-POL: US $ mn	2874	29991(10.5)	27137(14.7)	32562(11.9)	29096(–0.2)	29152(28.3)	22727(29.5)
Balance of Trade: Rs crore	–2133	–32729	–20367	–25268	–20102	–16325	–7297
US $ mn	–502	–7780	–5536	–6799	–5663	–4881	–2324

Foreign Exchange Reserves (excluding gold)	March 5, 1999	March 6, 1998	Mar 31, 1998	Variation Over: Month Ago	Year Ago	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95	1993-94
Rs crore	118545	94867	102511	1445	23678	16034	14492	22136	21649	–7302	18402	27430
US $ mn	27873	24029	25976	256	3844	1897	1660	3607	5243	–3690	5640	8724

Notes (i) Superscript numeral denotes month to which figure relates, e g, superscript 1 stands for January, (ii) Figures in brackets are percentage variations over the specified or over the comparable period of the previous year na: not available. neg: negligible * unchanged.

Money Market Rates of Interest

(Per cent per annum)

Weekended Fridays / Instruments	February 1999 26	19(RF)	12	5(RF)	January 1999 29	22(RF)	15	8(RF)	1	February 1998 27(RF)	20	13(RF)	6
Call money rate (Range: weekly)	7.15-9.75	8.75-9.50	7.00-9.60	8.65-9.40	6 00-9.00	8.50-35.00	8.90-30 00	8.50-9 50	5.50-10.00	7.50-19.5	8.65-15.50	0.75-11.50	7.00-17.00
Prime Lending Rates: Banks													
(Major Public Sector)	12.75-13.00	12.75-13.00	12.75-13.00	12.75-13.00	12.75-13.00	12.75-13.00	12 75-13.00	12.75-13.00	12.75-13.00	14.00	14.00	14.00	14.00
IDBI	14.00	14 00	14.00	14 00	14.00	14.00	14 00	14.00	14.00	14.50	14.50	14.50	14.50
ICICI	13.50-14.00	13.50-14.00	13.50-14.00	13.50-14.00	13.50-14.00	13.50-14.00	13.50-14 00	13.50-14.00	13 50-14.00	14.00-14.50	14.00-14.50	14.00-14.50	14.00-14.50
IFCI	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14 50	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14.50
Treasury Bills:-													
14-Day (RBI Auction): Primary	9.39	9.13	9.39	9.13	9.13	9.39	9.39	9.39	9.13	7.30	7.30	7.30	7.30
91-Day (RBI Auction): Primary	9.54	9.54	9.54	9.37	9.54	9.46	9.50	9.50	9.54	7.33	7.33	7.33	7.33
Secondary: DFHI(mid-point of bid and offer)	9.29	9.15	9.10	9.05	9.10	9.23	9.38	9.45	..	...	...	...	...
All SGL trading (Weighted YTM)	8 81	8.89	8.75	8 92	8.33	7 94	9.66	9 22	9.10	8.95	9.68	9.06	11.50
364-Day (RBI Auction):Primary	10.62	*	10.45	*	10 41	*	10.50	*	10.47	7.98	*	*	*
Secondary: DFHI (mid-point)	10.40	10.39	10.37	10.37	..	..	10.46	10.40	10.45	11.25	11.83	11.31	11.25
All SGL trading (Weighted YTM)	10.31	9.34	9.31	8.54	9.99	7.16	10.40	10.38	10.08	11.57	12.45	11.66	13.67
State Govt loans (Coupon rates)	-	-	-	12.50 10-year on tap	-	-	-	-	-	-	-	-	-
All SGL trading (Weighted YTM)	12.17	12.10	12.24	12.14	12.39	12.41	12.40	12 43	12.49	12.29	12.26	12 56	12.65
GOI Securites: Primary Auctions	*	*	*	*	*	*	*	*	*	*	*	*	*
Secondary : All SGL trading (Weighted YTM)	11.71	11.37	11 35	11.70	11.38	11.18	11.43	11.28	11.20	12.31	12.05	11.99	12.68
PSU Bonds yield:-													
Tax free: NSE(traded, weighted)	9.16	9.20	8 99	9.33	9.67	9.67	10 61	11.44	10.12	11.19	11 40	10.13	11.69
NSE (Range: weekly)	8.72-9.72	8.71-9.37	8 29-10.07	9.25-9.68	9.48-10.30	9 69-10.01	9.98-14.84	11 43-15.11	9.50-10.43	10.63-11.44	10.87-11.49	9.01-11.58	11.38-12.19
Taxable: NSE (traded, weighted)	14.76	13.18	14 81	15.77	14.88	14.35	10.85	14.50	14 75	14.80	15.17	15.29	15.52
NSE (Range: weekly)	14.70-14.97	11.65-16 22	13 15-15.63	14 33-16.33	14 31-15 81	11.57-14 65	10.80-15 50	11.48-15.11	13.50-14.84	14.24-15 29	13.97-15.73	13.08-15.50	13.41-16.93
Commercial Bills:													
DFHI (Rediscount rate)	..	..	..	..	..	..	.	..	..	...	...	...	...
CP: Primary market (90 days)	10.70-10.90	10 75-10.90	10.75-10 90	10 70-10.90	10.70-10.90	10.70-10 90	10.60-10.80	10 70-10.80	10.60-11.00	12.50-16.25	12.25-16.00	12.25-16.00	13.00-17.00
Secondary: DFHI (Discount rate)	.	..	..	.	..	..	..	.	..	...	...	...	...
Secondary: market/NSE	10.68-11.12	10 05-10.83	9.78-10.80	9.10-10 75	9.68-10 95	10.25-10 90	9.82-10 95	10.10-10 75	10.20-11.00	.	...	...	14.50-15.75
CDs: Primary market	10.40-10.60	10.45-10 65	10 45-10 65	10 30-10.60	10 30-10.60	10.30-10.60	10.30-10.50	10 25-10.50	10.30-10.60	12 50-16.50	12.25-15.75	12.25-15.75	13 0-17.0
Secondary: DFHI (Discount rate)	..	.	..	..	..	..	..	..	..	..	...	...	...
Inter-corporate deposits (30 days)#	10.50-11.50	10.50-11 50	10.50-11.50	10 25-10.75	10 25-10.75	10.25-10 75	10.25-10 75	10 25-10 75	10.50-11 00	13.00-15.50	13.25-15.75	13.25-15.75	14.00-17.00
(90 days)	11.50-12.00	11.50-12.25	11.50-12.25	11 00-11 50	11 00-11 50	11.00-11.50	11.00-11.50	11.00-11.50	11.25-11.75	15.00-17.50	15.25-17.75	15.25-17.75	16 00-19.00
Memorandum Items:													
(i) Forward premia on the US dollar in the domestic inter-bank market (annualised in per cent per annum) (Weekly average)@													
Spot/Cash	3.21	3.65	4 85	4 94	4 83	2.69	6.57	2.61	4 36	7.12	4 52	4.85	5.30
One-month	7.17	5 95	5.75	5 23	4 75	5.63	5.03	4.46	5.05	12 68	12.02	10 77	16.25
Three-month	7.39	6 71	6 54	6 51	6.82	6 41	5 81	5.63	6.05	15 19	14.85	14.77	18.75
Six-month	7.62	7 13	6.90	6 80	6.70	6.70	6 39	6.94	7.27	14.45	14 15	14 16	15.70
Twelve-month	7.94	7.64	7.38	7.35	7.35	7.34	7.22	7.89	8 24	13.26	13.22	13.28	13.66
(ii) RBI Reference Rate (Rs/US$)	42.49	42.44	42.45	42 47	42 50	42.51	42 47	42.52	42 47	39.30	38.91	38.80	38.75

ICD figures till September 1998 are for a tenor of 60-90 days for Blue Chip and Non-Blue Chip Companies respectively. RF means reporting Friday for fortnightly reporting of conditions of banking business and the fortnight serves as the reserve maintenance period for scheduled commercial banks. @ Based on daily quotations supplied by Mecklai Financial and Commercial Services Ltd., Bombay. Weekly averages of inter-bank premia annualised per cent per annum. - no floatation .. no trading * no auction na: not available YTM = yield to maturity.

BARODA RAYON

Deeper in the Red

BELEAGUERED BARODA RAYON went further into the red in 1997-98. While the company's net sales fell by 30.8 per cent over the previous year, it suffered an operating loss as compared to an operating profit in the previous year. Despite a non-operating profit of Rs 9.5 crore, the company suffered a net loss of Rs 27.5 crore as compared to a loss of Rs 19.8 crore in 1996-97.

The AV Birla group, which was considering take-over of the company, backed out of its earlier decision after rayon prices crashed by Rs 20. Reportedly the company has now drawn up a new plan to turn the corner and is putting its rayon and polyester plants on the block. Further, it also wants to auction about 40 acres of land at its Fatehnagar complex in Surat in order to finance its plans to bring itself out of the red. While its total liability is around Rs 110 crore, the rayon plant itself is expected to fetch the company around Rs 50 crore, while the sale of property is expected to net another Rs 8-10 crore. The plan to sell off the two units and the land is apparently a part of a detailed restructuring scheme prepared by Arthur Anderson. Baroda Rayon has already sold off its office premises in Hoechst House in Mumbai in order to repay a bridge loan to Infrastructure Leasing and Finance Corporation. The decision to hive off some of its plants could be what the company needed, because due to lack of funds, none of the company's plants was working at optimum capacity. In fact while the rayon plant was making a loss of a crore, the nylon yarn unit added a further loss of Rs 3 lakh and the losses of the polyester plant were Rs 30 lakh. The only silver lining was that the tyre cord plant was breaking even – mainly because the leading tyre manufacturer MRF buys 60 per cent of its production and it has been given the number one vendor status by JK Tyre and MRF. It is estimated that the company requires just about Rs 15 crore to run all its remaining plants at full capacity. So the new strategy might just set things on track again. Baroda Rayon also plans to induct strategic partners into its different businesses such as rayon, nylon and tyre cord.

The company had earlier held discussions with Reliance on lending its polyester unit as a conversion unit for the latter, but is now engaged in talks with some large texturing units to sell the unit. It has also tied up with its dealers which has led to assured returns and better capacity utilisation. However, since the company was forced to buy polyester chips from the open market, the realisation from the unit was poor.

BRITANNIA INDUSTRIES

Higher Profits

The Nusli Wadia group company Britannia Industries witnessed an encouraging performance in 1997-98. While the company's net sales increased by 13.5 per cent over the previous year, operating profit improved by 38.1 per cent and net profit soared by 61.8 per cent. The company's bottomline was boosted by a lower interest charge (down 10.2 per cent) as compared to the previous year. Consequently, earnings per share was higher at Rs 15.6 as compared to Rs 9.6 in the previous year. Encouraged by its performance the company decided to raise the dividend from 40 per cent last year to 50 per cent. Book value, meanwhile, moved up from Rs 55.2 per share to Rs 65.2 per share.

The biscuits and dairy major claims that the growth in its earnings was achieved mainly through increased volumes, all-round cost saving and effective treasury management. Biscuit volumes were up 6 per cent mainly through the successful launch of the Tiger range in the mass market category and introduction of new premium products. The company has also entered the dairy market with the launch of cheese and dairy whitener and both these products have been well received.

The company's growth this year has come mainly because of satisfactory performance in the core bakery business and the success of its dairy products. Its focus on new products continues with the launch of it health range under the Nutri-choice umbrella. The company has pruned its product portfolio from 35 to 25 but has introduced several new products in the biscuits, dairy products and cakes sectors. After retaining the status of being the country's largest biscuit company for years, Britannia has now set out to challenge dairy market leader Amul which has a market share of around 50 per cent. In fact Britannia was the first to launch cheese slices in the market and it now estimates that it has a market share of around 35 per cent in the cheese category with the figure rising every month.

For the first nine months of 1998-99 Britannia Industries has notched up a net profit of Rs 28.7 crore on a sale of Rs 760.4 crore, which is an increase of 33 per cent and 22 per cent, respectively over the corresponding period last year. In fact, the company's performance and the euphoria in the stock market have driven its share price from around Rs 1,000 in January 1999 to Rs 2,000 at present. The company currently enjoys a phenomenal price to earnings ratio of around 77.3 on the bourses.

Depreciation for the current year is estimated to be higher than in the previous year due to the company's ongoing industrial restructuring programme. In the process of recasting, the company has planned to spend Rs 200 crore, out of which Rs 38.6 crore has already been spent in the last financial year. The company is now concentrating on its food and beverage businesses along with the modernising systems of packaging which has been undertaken by its French associate, Groupe Danone.

SHIPPING CORPORATION OF INDIA

Tie-Up with Oil PSUs

The country's premier shipping company, Shipping Corporation of India (SCI), saw a mixed performance in 1997-98. While net income increased by 6.4 per cent over the previous year, operating profit declined by 1.4 per cent. However, a higher non-operating profit and a lower interest charge for the year helped the company post a 5.6 per cent rise in its bottomline. The state-owned shipping giant has now drawn up a two-tier pricing formula for ferrying crude from the Arabian Gulf, whereby it will carry crude from the originating port to the first port of discharge on a per tonne basis calculated on the Average Freight Rate Assessment (AFRA) index compiled by the London tanker brokers' panel. The new formula replaces the cost-plus basis for pegging freight rates, which was abolished in the wake of the union cabinet's decision earlier to dismantle the

(Rs lakh)

Financial Indicators	Baroda Rayon Corpn March 1998	Baroda Rayon Corpn March 1997	Britannia Industries March 1998	Britannia Industries March 1997	The Shipping Corpn of India March 1998	The Shipping Corpn of India March 1997
Income/appropriations						
1 Net sales	18806	27161	82427	72603	241445	226972
2 Value of production	18644	26664	82950	72928	241445	226972
3 Other income	479	553	1045	1161	7953	11527
4 *Total income*	19123	27217	83995	74089	249398	238499
5 Raw materials/stores and spares consumed	8743	14730	47859	44766	6478	6990
6 Other manufacturing expenses	4416	4420	8375	7513	77976	75432
7 Remuneration to employees	4312	4089	7257	6836	28747	27229
8 Other expenses	1680	2108	14679	10756	75816	67620
9 *Operating profit*	-28	1870	5825	4218	60381	61228
10 Interest	2378	2453	492	548	13681	15659
11 *Gross profit*	-1457	-563	5422	3675	55101	50928
12 Depreciation	1298	1419	1182	727	24975	23569
13 *Profit before tax*	-2755	-1982	4240	2948	30124	27358
14 Tax provision	-2	1	1347	1160	5500	4031
15 *Profit after tax*	-2753	-1983	2893	1788	24624	23327
16 Dividends	NA	NA	1021	817	6211	6211
17 Retained profit	-2753	-1983	1872	971	18413	17116
Liabilities/assets						
18 Paid-up capital	4015	3174	1857	1857	28230	28230
19 Reserves and surplus	2245	4578	10256	8385	137613	119216
20 Long-term loans	13918	14824	8347	6377	190144	194180
21 Short-term loans	NA	NA	1500	NA	NA	NA
22 Of which bank borrowings	NA	NA	1500	NA	NA	NA
23 Gross fixed assets	34517	34372	17473	12115	502154	471330
24 Accumulated depreciation	16960	16135	4701	3583	201420	179606
25 Inventories	3078	3592	5858	5069	3099	4425
26 Total assets/liabilities	27390	29679	39125	31802	449104	423401
Miscellaneous items						
27 Excise duty	4508	8157	2357	2630	NA	NA
28 Gross value added	6118	5947	12417	10065	100859	89651
29 Total foreign exchange income	NA	3	644	2442	NA	NA
30 Total foreign exchange outgo	474	1647	1314	846	NA	NA
Key financial and performance ratios						
31 Turnover ratio (sales to total assets) (%)	68.66	91.52	210.68	228.30	53.76	53.61
32 Sales to total net assets (%)	93.20	120.31	375.35	436.87	67.82	66.44
33 Gross value added to gross fixed assets (%)	17.72	17.30	71.06	83.08	20.09	19.02
34 Return on investment (gross profit to total assets) (%)	-5.32	-1.90	13.86	11.56	12.27	12.03
35 Gross profit to sales (gross margin) (%)	-7.75	-2.07	6.58	5.06	22.82	22.44
36 Operating profit to sales (%)	-0.15	6.88	7.07	5.81	25.01	26.38
37 Profit before tax to sales (%)	-14.65	-7.30	5.14	4.06	12.48	12.05
38 Tax provision to profit before tax (%)	0.07	-0.05	31.77	39.35	18.26	14.73
39 Profit after tax to net worth (return on equity) (%)	-43.98	-25.58	23.88	17.46	14.85	15.82
40 Dividend (%)	5.00	NA	50.00	40.00	20.00	20.00
41 Earning per share (Rs)	-6.86	-6.25	15.58	9.63	8.72	8.26
42 Book value per share (Rs)	15.59	24.42	65.23	55.15	58.75	52.23
43 P/E ratio	NA	NA	77.28	NA	NA	NA
44 Debt-equity ratio (adjusted for revaluation) (%)	222.33	191.23	68.91	62.26	114.65	131.70
45 Short-term bank borrowings to inventories (%)	NA	NA	25.61	NA	NA	NA
46 Sundry creditors to sundry debtors (%)	241.40	209.32	308.15	381.69	113.36	136.86
47 Total remuneration to employees to value added (%)	70.48	68.76	58.44	67.92	28.50	30.37
48 Total remuneration to employees to value of production (%)	23.13	15.34	8.75	9.37	11.91	12.00
49 Gross fixed assets formation (%)	0.42	NA	44.23	NA	6.54	NA
50 Growth in inventories (%)	-14.31	NA	15.57	NA	-29.97	NA

NA means not available.

administered price mechanism on petroleum products.

SCI has a fleet of 115 vessels, 29 of which are crude tanker vessels of different sizes, making it the largest crude carrier and shipping company in the country. It accounts for over 50 per cent of the country's fleet. The company is the only shipping company which has an exposure to all segments of the industry, such as dry-bulk, tanker and containers. However, container operations are only a peripheral part of the company's business with the bulk of the income coming from tanker operations.

With the new pricing formula, which is to be implemented with retrospective effect from April 1998, SCI has in fact passed on the risks of shipping crude to the Oil Coordination Committee.

SCI is now planning to raise a minimum of $115 million through external commercial borrowings (ECBs) in order to part-finance the acquisition of four Aframax tankers. The total cost of buying the ships has been estimated at $144 million with each vessel having a $36 million price-tag. The balance funds will be financed through internal accruals. This is the second time that SCI is planning to raise ECBs to fund Aframax carriers. The company plans to acquire around 44 ships in the next few years in addition to planning to enter the liquefied natural gas (LNG) trade and the coastal and feeder markets.

The Disinvestment Commission is said to have proposed that the large PSU oil companies be allowed to pick up a stake in SCI. Since 20 million out of the total 35 million tonnes of cargo carried by SCI ships is crude oil, this is expected to be a good move as equity holding entails a kind of bonding. SCI has also entered into a pact with Indian Oil Corporation to become the nodal agency for carrying crude oil for the latter's refineries.

IVP

IVP has reported encouraging results for the nine months ended December 31, 1998. While sales increased by 152 per cent over the corresponding period last year, the company's gross profit improved by 51 per cent. Net profit too was up 52 per cent. The company's annualised earnings per share works out to Rs 11.5 compared to Rs 8.1 for the previous year.

Union Budget: Long on Words and Short on Funds

EPW **Research Foundation**

The budget for 1999-2000 has ducked two basic problems requiring urgent attention: one, the immediate issue of an acute liquidity shortage and recessionary conditions faced by Indian industry and, the other, the longer-term question of social deprivation faced by a majority of the population which reflects the serious weaknesses of the pattern of development pursued so far and which is increasingly proving to be a major constraint in accelerating economic growth.

IF there is one lesson that we can draw from the fiscal operations of the central government in the last few years culminating in Yashwant Sinha's second budget for 1999-2000, it is that they have ceased to be an instrument of economic and social development. They have now turned out to be a high-gear affair only to sustain a bloated central bureaucracy, to finance the huge debt servicing burden and to serve as an instrument for supporting the aspirations of the rich and middle classes. If we accept the view, as many intellectuals have begun to accept, that the government is incapable of shouldering a higher level of development expenditure for providing an impetus to development and to social sector activities, or that further increases in such government expenditure would only go to perpetuate inefficiencies and fiscal waste, we would then accept the mainstream stabilisation agenda and place the fiscal goals within a narrow construct. Viewed in that light, one could see some merit in Yashwant Sinha's latest budget.

First, the budget has flagged fiscal correction as the foremost goal and claims to have begun a medium-term process of eliminating the revenue deficit and reducing fiscal deficit to 2 per cent of GDP in the next four years. In 1999-2000 the revenue deficit, which has shot up successively for three years and reached a peak of Rs 60,474 crore or 3.4 per cent of the revised GDP in 1998-99, is expected to be reduced to Rs 54,147 crore or 2.7 per cent of GDP. In regard to gross fiscal deficit, the budget has succeeded in containing the absolute amount at Rs 79,955 crore, that is, roughly at the previous year's peak of Rs 79,949 crore after excluding the transfer of the states' share of small savings accruals or at Rs 104, 955 crore against Rs 103,737 crore inclusive of such transfer. As a percentage of the revised GDP, the fiscal deficit is proposed to be reduced in either case by 0.5 percentage point from 4.5 per cent to 4 per cent without the states' share of small savings or from 5.8 per cent to 5.3 per cent inclusive of such share. There is no ambiguity or lack of transparency in the numbers as many commentators have sought to make out. Based on the unrevised GDP series, the gross fiscal deficit of the centre worked out to 6.5 per cent for 1998-99 (against the earlier budgeted figure of 5.6 per cent) and it would decline to 5.8 per cent inclusive of small savings in 1999-2000; with the exclusion of small savings, the ratio based on the old GDP estimate would fall from 5 per cent to 4.4 per cent.

The above numbers are all set out in the budget documents and these suggest a steep deterioration in the fiscal situation in 1998-99, which has been sought to be corrected in 1999-2000. The decision to delink small savings collections – to be specific, the states' share of such savings constituting 75 per cent of the total – from the centre's fiscal deficit is a perfectly legitimate one and has been long overdue. Small savings collections have of late shown a healthy growth from Rs 25,927 crore in 1996-97 to Rs 39,552 crore (by 52.6 per cent) in 1997-98 and further to Rs 52,788 crore (by 33.5 per cent) in 1998-99 and obviously this should not be construed to be part of the fiscal malaise. Only Rs 8,000 crore or 25 per cent of the expected small savings collections have been included as part of capital receipts and hence part of the fiscal deficit of the centre for 1999-2000. The states would get Rs 25,000 crore out of the National Small Savings Fund in the Public Account, drawings from which do not require parliamentary authorisation; they are treated as such in the budget documents, quite appropriately.

Secondly, it must also be said to the credit of the finance minister that he has succeeded in projecting the above fiscal correction without his revenue projections appearing to be over-estimates as has been made out again by some commentators. The proposed increase of gross tax revenue by 18.9 per cent is inclusive of Rs 9,334 crore of fresh mobilisation, whereas excluding it the increase works out to 12.7 per cent which is broadly the expected rise in nominal GDP. Some allowance has been made for higher tax buoyancy due to possible improved compliance in personal income tax. Thus, exclusive of new tax proposals, personal income tax revenue is expected to rise by 16.2 per cent and customs revenue by 14.7 per cent, but corporation tax and union excise duties would rise by only 10 per cent and 11.1 per cent, respectively, reflecting the assumption of a modest growth of 6 per cent in industrial output. Inclusive of fresh levies, receipts from union excise duties will rise by 20 per cent, customs by 18.1 per cent, income-tax by 25.6 per cent and corporation tax by 14 per cent.

A third noteworthy aspect of the budget proposals relates to the attempt by the finance minister to desist from applying selective alterations in customs and excise duty rates, which in the past prompted lobbying by vested interests on the eve of the budget. There does appear to be some merit in the claim that the rationalisation of the duty structures – from 11 major ad valorem rates to 3 in excise and from 7 to 5 in customs – has been done by applying objective norms and has not been prompted by the demands of individual industries.

Yet another welcome feature of the budget concerns the proposals to involve village panchayats in executing and supervising the special social programmes relating to food, health-care, education, employment and shelter under the newly proposed national human development initiative (NHDI). Rightly, the release of funds by the central government has been made conditional on the initiative taken by the state governments and village panchayats, which should help to minimise the dependency psychology spawned so far by the centralised planning process.

Finally, the finance minister has respected the independence of the central bank and, unlike past finance ministers, has avoided announcing monetary policy measures in the budget speech. Though the minister and his ministry officials expressed their preference for a reduction in interest rates, thus echoing the expectations of businessmen in pre-budget discussions and memoranda, the formal announcement was left to the RBI, thus setting a healthy precedent. The steps taken by the RBI to slash the repo rate from 8

per cent to 6 per cent, the Bank rate from 9 per cent to 8 per cent and the cash reserve ratio from 11 per cent to 10.5 per cent have stirred up the markets and provided an expansionary impulse to market psychology, but the budget provides no guarantee that this propelling of market psychology would be supported and strengthened by an augmentation of domestic demand based on improved public sector investment and development outlays in real terms.

While there are thus some welcome features, the budget as such seems to have ducked the two basic problems requiring utmost attention – one, the immediate issue of an acute demand shortage and depressed growth and investment conditions faced by Indian industry and, the other, the longer-term question of social deprivation faced by a majority of the population which reflects the serious weaknesses of the pattern of development pursued so far and which is increasingly proving to be a major constraint in accelerating economic progress. The severe demand constraint faced by the manufacturing sector is largely attributable to three factors: a sharp reduction in public sector investment, erosion in the share of development expenditure in total expenditure of the central and state governments, and slower growth in bank credit as well as a decline in the proportion of bank credit earmarked for agriculture, small-scale industry and other informal sectors.

Reflecting the erosion of public sector investment and the government's development expenditure are the large and persistent shortfalls in the centre's annual Plan outlays in the past three years. There was a shortfall of Rs 9,568 crore in 1996-97, Rs 10,806 crore in 1997-98 and as much as Rs 16,705 crore in 1998-99. One of the important causes of this shortfall has been the rapid increases in the salary and pension bills of the central government. The total of such expenditures increased by as much as 33.9 per cent to Rs 29,627 crore in 1997-98. But this is not the whole story. There have occurred considerable revenue shortfalls too, as a result of reductions in tax rates and the recessionary conditions in the economy. There was a tax revenue shortfall of Rs 10,927 crore in 1997-98 – a year in which the government implemented the fifth pay commission's recommendations. There has occurred another shortfall of Rs 9,011 crore in 1998-99. The tax to GDP ratio in respect of the centre has steadily declined since 1995-96. Apart from the cynicism one would entertain because of the persistent shortfall in budgetary allocations for development expenditures, the size of expenditures proposed in the latest budget may at best help sustain the present level of depressed economic activity. Plan expenditure is slated to rise by 12.6 per cent which is just the rise expected in nominal GDP. Against such imperatives of increasing public expenditures, the give-aways of as much as Rs 8,000 crore, including a sizeable sum through the mutual funds and the capital market, could have been avoided. The sleight of hand adopted by the government to achieve disinvestment of PSU equities to the tune of Rs 9,000 crore in 1998-99 has been at the cost of 'internal and extra-budgetary resources of PSUs' under which there has occurred a shortfall of as much as Rs 12,504 crore for financing the central Plan outlay in 1998-99. And interestingly, such resources expected in 1999-2000 at Rs 59,521 crore would be even lower than those budgeted for in the current year (Rs 62,723 crore). To what extent the strategic disinvestment of PSU equities now proposed for 1999-2000 for a total sum of Rs 10,000 crore is responsible for this downgrading of the size of the central Plan outlay as compared with the budgeted figures of 1998-99 is a moot question. Such downsizing has occurred under all the major heads of central Plan outlays: agriculture and allied activities, rural development, irrigation and flood control, energy and industry and minerals. The revised estimates for the current year are so low as compared with the budget estimates that even the low provisions made for the next year still appear higher by about 10 to 35 per cent over them. To what extent the reduced investment horizons of the public sector enterprises are due to their limitations of absorptive capacity and to what extent they are due to reduced allocation of funds following stringency in Plan resources is difficult to judge without looking into individual cases, but a general observation that can be made is that the major PSUs represent a massive industrial base around which industrial expansion can be thought of by a multi-pronged strategy: higher industrial investment, industrial restructuring and strategic tie-ups. In this regard, if the Disinvestment Commission's reports have to be believed, the PSUs are not being allowed to operate on sound commercial lines, and their boards are not being given the autonomy required for them to take corporate decisions including those on investment restructuring and evolving strategic tie-ups. There is not even an iota of awareness shown in the budget about the pivotal role that the PSUs can play in reviving industrial investment in the economy.

It is in respect of the social sector that the budgetary allocations seem most disappointing, particularly in the context of the crying need for giving a decisive push to developmental activities in primary education, rural health infrastructure and other amenities. The budget gives considerable focus on local initiatives at the gram panchayat level which, on the face of it, appears to be a very welcome strategy, as stated above. But, considering the severe resource crunch faced by these self-governing bodies, the programme set out in the budget may remain a non-starter. For instance, while proposing a grandiose plan of implementing an Education Guarantee Scheme at the national level whereby it is proposed to provide an elementary school in every habitation within a radius of 1 km (*a la* Madhya Pradesh), the finance minister suggests that "initially, the local community would provide the premises and select a local person as a part-time teacher. Teaching material and other assistance will be provided by the central and the state governments, while gram panchayats will mobilise contributions from the local community in cash and kind for running the school for at least two years." There is no separate provision made in the budget for this. Instead, it is argued that the resources available under the existing centrally-sponsored education schemes will be mobilised to support this important initiative. That the budget does not provide the necessary thrust on primary education and that the budgetary allocations made would be inadequate for achieving the objective of expanding the coverage of primary education is evident from the allocation made for, say, nutritional support to primary education which has been slashed from Rs 1,400 crore in the revised estimates for 1998-99 to Rs 1,031 crore for 1999-2000. Of the increase of Rs 292 core under the head 'elementary education', Rs 190 crore is for 'non-formal education'.

Similarly, in regard to rural health care, the finance minister is long on words but hardly forthcoming on the provision of funds for upgrading the facilities provided at the primary health care centres. For the gram panchayats to qualify for central government funds, they will have to "come forward with their own contribution to set up primary health care facilities in their respective areas. This will match similar assistance from the concerned state government." Where will the funds come from? The budget again does not make any provision for it but the finance minister does pontificate: "Our goal is to integrate and synergise the existing programmes for health care, family welfare, rural development and related areas in different central ministries and to deploy the available resources so that every household secures ready access to both primary health care and family welfare services." A sure way of hiding behind words.

Where Assertion Is Insurrection

D Bandyopadhyay

Instead of appreciating that a conscious, articulate and rational population is a great national asset which is essential for democracy to take root in any society, the administration in Orissa is treating every dissent as defiance and every assertion as insurrection. Findings of a study team to report on the situation arising from the acquisition of a large tract of agricultural land belonging to tribals by the Orissa government for Utkal Alumina International in Kashipur tehsil of Rayagada district.

WITH a blood red hibiscus jauntily stuck in her bun, a middle aged tribal woman stood up with dignity and said in a measured tone clearly "what is the use of monetary compensation? Money is meant to be spent. Once spent there is nothing left. This land and this forest sustained our forefathers. They are sustaining us now. They would sustain our children and their progenies. We cannot leave them for a fistful of money. Without land and forest we would not survive. We shall not leave our land." The rest of the crowd numbering about 700 spoke in unison, "we shall not leave our land".

The venue was Kucheipadar village in tehsil Kashipur, district Rayagada in Orissa. A large tract of agricultural land belonging to tribals living in this village has been acquired by the government for Utkal Alumina International (UAIL). The alumina plant and the township would be located here. Most of the tribals refused to take the compensation money and are resisting eviction from their land. A few who under coercion took the money, had already spent most of it in search of suitable alternative land. Having failed to do so and having lost the money in the process, all of them were in deep trauma. Their plight made others more resolute not to take the compensation money and not to part with their land.

Vidhya Das of Agragamee, Kashipur, wrote two excellent pieces on the destructive impact of the mining projects on tribals and gross violation of human rights by the state and the corporate sector (*Economic and Political Weekly*, June 3, 1995 and March 14, 1998). The print media took some notice of the goings on in the backwoods of Rayagada and Kalahandi but that was not sufficient to rouse the conscience of the Indian intelligentsia to generate any pronounced support for the tribal cause. The matter came to a head when the government of Orissa in its intolerance and vengefulness issued showcause notices to four non-government organisations, i e, Agragamee, Laxman Nayak Society, Ankuran and Weaker Sections Integrated Development Agency (WIDA) for 'deregistering' and banning flow of funds to them from various state government departments and agencies and requesting the government of India to the do same. These four agencies had been working among the tribals of this remote area for nearly two decades trying raise their awareness, spreading literacy, training them in watershed management and better agricultural practices and the like. The government was surprised by the tenacity and the vehemence of tribal resistance for the last over six years. The organised resistance instead of dying down with the passage of time became more and more intense with greater mass support. The only explanation of this bewildering phenomenon in the government's mind was the presumed behind-scene-incitement by these four voluntary agencies. Hence this direct assault on the institutions of civil society.

The Council for Social Development, New Delhi, had been receiving representations and information regarding the adverse effect of bauxite mining on the tribals and environment since early 1998. It decided to mount a mission to study the situation at Rayagada with a view to assessing the ground realities and framing a policy package to defuse the situation and safeguard the interests of the tribals. The mission consisted of Muchkund Dubey, B N Yugandhar, B S Nagi and the present author.

The team visited five of the affected villages in Rayagada district, met state government officials – from the chief secretary to field-level functionaries – went round the offices of three among the four NGOs against whom the state government initiated punitive action and had discussions with the 'pro-industry' group of people who were always accompanied by a posse of policemen and company officials during the second and third week of January 1999. It produced a printed 41-page report by the third week of February 1999. ('Report on the Visit of a Team of the Council for Social Development: Rayagada and Bhubaneswar on January 11-18, 1999', Council for Social Development 53 Lodhi Estate, New Delhi 110 003 hereinafter referred to as the Report.)

The findings of this Report, which require to be shared with the intelligentsia of the country, have relevance to the state of governance in Orissa, particularly in relation to the special obligation of the government towards the tribals in the Fifth Schedule areas and the role of civil society in protecting and preserving the livelihood, lifestyle and culture of tribals in the region *vis-a-vis* the state government.

The team was given the impression at Bhubaneswar that there was overwhelming support for the three alumina projects of UAIL, Larsen and Toubro and Hindalco (Aditya Birla group) from the general population and that there were just a few recalcitrant elements, incited and provoked by the four NGOs, who were opposing land acquisition and industrialisation of this backward region. From the field visits the team was convinced that the impression given at Bhubaneswar that the affected people largely supported this move for industrialisation was totally erroneous. It appeared that there was a deliberate attempt to spread disinformation. All the villages were deeply attached to their land and they were not prepared to give up their land for a totally uncertain future.

What was ominous for any system of proper governance was the complete lack of trust between the affected people on the one hand and the state government and the companies on the other. "This is partly because of their frustrating experiences in the past, partly because of the shabby way in which they are being treated now, and partly because of the economic and social uncertainties surrounding their existence" (p 21). One of the villages summed up its experience with the local administration pithily: "We die of starvation. We die of diseases. The collector never comes to help us in these tragic moments. Now he has come at the behest of the companies. How can we trust him?" (pp 20-21).

The team found overwhelming evidence of excessive use of coercive methods by the district authorities against the tribals and scheduled caste population affected by these projects. "This has happend particularly in two villages: Kucheipadar and Sunger. In both these villages, hundreds of people including young boys and girls were arrested and taken into custody. In Sunger area, the company is alleged to have let loose goons to harass the villagers" (p 21). The district administration's reaction has been quite out of proportion with what the situation demanded. "On the whole, the villagers have not indulged in any gross infringement of the law or committed acts of violence.

They were only protesting peacefully against what they considered to be an infringement of their rights" (p 22). They resisted when they found survey, exploratory drilling, road construction activities being done on their land without their consent or even without any prior intimation. They did raise barricades on the road mostly to attract the attention of the administration to listen to their grievances. But they consciously avoided any militancy or violence lest their just cause got misrepresented.

The team felt that it was "undesirable to use the local and special police to prevent the affected people from meeting and organising themselves to express their grievances and voice their concern and opposition. Normally, the police have no role in this, unless specific crimes have been reported" (p 23).

The team was told by the highest level officer(s) of the Orissa government at Bhubaneswar that the government would not countenance any opposition to industrialisation of Rayagada by anybody or any group, that an anti-industry movement would tantamount to anti-state activity and that the government was determined to 'teach a lesson' to the NGOs which were indulging in acts of incitement by organising tribals against land acquisition.

On the ground, the team found ample evidence of unjustified highhandedness by the local administration. Such coercive measures produced contrary results. People became doubly determined to protect their land and forest resources. "Most of the villages we visited have set up Anchalik or Vanasampada Suraksha Parishads (regional or forest resource protection councils). The team found the villagers agitated, angry and determined to resist any intrusion of the company into the area" (p 23).

To the affected tribals of the region there was no distinction of identity between the mining companies and the government. They worked in unison, spoke the same language and behaved similarly. It appeared to some that on the 150th anniversary of the publication of *Communist Manifesto*, the government of Orissa was bent upon proving the point that "Political power, properly so called, is merely the organised power of one class for oppressing another" (*Manifesto of the Communist Party*, Progressive Publishers, Moscow, 1975, p 76).

One of the most disturbing and worrisome phenomeon that one encountered was the scant regard shown by the Orissa administration to the laws and the Constitution so far as these relate to tribals. The districts of Rayagada, Koraput and Kalahandi are Fifth Scheduled areas. The governor of Orissa, under the Constitution of India, has a special responsibility for the "welfare and advancement of the scheduled tribes" and for "peace and good government" in the areas under the Fifth Schedule so declared by the president of India. The team regretfully observed "that the administration was oblivious to the extent of being almost callous and insensitive to the constitutional obligations that the governor of the state has to the tribals in these areas". Under the Fifth Schedule (Clause 3) the governor has to send annual reports to the president regarding administration of the scheduled areas. One wonders what reports the governor of Orissa had been sending to the president of India for the last six years regarding "welfare and advancement of scheduled tribes" and "peace and good government" in the Rayagada, Koraput and Kalahandi districts. Under the Constitution "the executive power of the union shall extend to giving of directions to the state as to the administration of the said areas". It appears that both the state and the union governments had been remiss in not fulfilling their constitutional obligations towards the scheduled tribes in the Fifth Scheduled areas of Rayagada, Koraput and Kalahandi In their single-minded pursuit of promoting the cause of the three large corporations, the state government had been grossly negligent in performing its constitutional duties to the tribals.

The Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996, provide for extensive powers to the gram sabha and panchayats in Fifth Scheduled areas. Section 4(i) states "the gram sabha or the panchayats at the appropriate level shall be consulted before making the acquisition of land in Scheduled Areas for development projects and before resettling or rehabilitating persons affected by such projects in the Scheduled Areas". This law makes prior consultation with the gram sabha and/or panchayats mandatory both in cases of land acquisition and preparing a resettlement and rehabilitation package for the affected tribals. There was no such consultation at any stage either for the purpose of land acquisition or for the R and R package. The most unfortunate part of the situation is that there has been no transparency about these mining projects vis-a-vis the affected population. There has been no communication except conveying premptory orders regarding lands to be acquired and compensation to be given.

The Report further observed, "None of the recent trends and requirements of rehabilitation, such as land-to-land exchange, wherever possible, community resettlement, employment security, protection of livelihood needs, *nishtar* rights or entitlements in common resources, has been taken into account. Neither the companies nor the government have made this information available to the affected or their organisations or to the voluntary organisations working amongst them" (p 26).

The most unsavoury aspect of the entire episode so far has been the direct assault launched by the state government on the four NGOs operating among the tribals in the back-of-beyond hills and jungles of south and south-west Orissa. These four voluntary agencies led by Agragamee have been carrying out development and conscientisation activities for the last two decades in the most backward and remotest tribal regions of Orissa. Over the years, they have achieved remarkable results, particularly in the areas of universalisation of primary education, ensuring food security at the household and community level in the drought-affected areas, watershed management, implementing government's pro-poor policies, strengthening grass roots people's organisations and organising the rural poor for asserting their rights and participating in the process of development. These voluntary agencies had to respond to and stand in support of the genuine concerns and worries of the project-affected people. With dissatisfaction spreading so wide and deep among the tribals due to inept handling of the situation by the administration, these NGOs are standing as a buffer between expression of dissent in a democratic form and open destructive militancy which is happening just across the border in Andhra Pradesh. The state's assault on these agencies and its attempt to make them non-functional will only encourage the militants who are waiting in the wings to take over. One shudders at the short-sightedness and the senseless policy of the state government in victimising these NGOs for supporting a genuine popular cause.

The campaign was launched by the government of Orissa to 'deregister' these four NGOs and to deprive them of any support and its letter to the government of India and other funding agencies to do the same "smack of vendetta and intolerance. This trend is unhealthy for the growth of the institutions of civil society, as well as for the socio-economic transformation of the area" (p 30).

In the twenties, while facing the second sedition charge in a magistrate's court in UP, Jawaharlal Nehru wrote: "It is a terrible thing when an organised government begins to behave like an excited mob, when brutal, vengeful and uncivilised behaviour becomes the normal temper of government." What Nehru wrote from his own personal experience seven decades ago unfortunately seems to be true even now in the Fifth Scheduled areas of Orissa.

Instead of appreciating that a conscious, articulate and rational population is a great national asset which is essential for democracy to take roots in any society, the administration in Orissa is treating every dissent as defiance and every assertion as insurrection. What an agonising situation! One wonders whether it was the virulent virus of 'liberalisation' which could so swiftly and so thoroughly corrode the underlying basic values of our polity enshrined in the Preamble, Chapter III Fundamental Rights and Chapter IV Directive Principles of State Policy of Our Constitution and make the instruments of the state, the bureaucracy, so insensitive, obdurate and callous to people's needs and aspirations.

Recently, there has been a change in the government in Orissa at the political level. There have also been some changes in the administrative level. The present chief minister, Giridhar Gomang, is a person from this area who knows the issues well. There is a lot of expectation that the present government would now make a serious effort to harmonise the need for mining with the tribals' right to livelihood, life style and culture. The least that should be done is to ensure compliance of the provisions of the Constitution, particularly those contained in the Fifth Schedule, and the provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996. Consultation with gram sabhas in matters relating to land acquisition and for resettlement and rehabilitation packages as mandated under the Act should be strictly adhered to. The punitive action initiated against the four NGOs should be withdrawn immediately. Criminal cases filed against numerous men, women and children for taking part in anti-land acquisition movement should be withdrawn. The government should take bold initiatives to settle the dispute through direct negotiation and discussion, allay the genuine apprehension about livelihood by a generous package of resettlement and rehabilitation prepared through proper participatory process and try to heal the hurt already caused by appropriate conciliatory measures. The situation is tense but can be defused. Let the industrialisation of Rayagada be a boon and not a curse to the tribals living there.

Tangled Threads

Silk Growers and Imports

M K Tikku

The government's decision to allow free imports of Chinese yarn has depressed prices of local yarn adversely affecting local silk growers who cannot afford to invest capital in improving the quality of yarn.

THE conflict of interests between silk growers and the silk trade and industry has been sharpening over the past few months. At the centre of the conflict is the government's decision, last October, to permit the free import of the superior grade silk yarn from China. Earlier, the import of the Chinese yarn used to be restricted to exporters against entitlements related to their actual export performance. One consequence of the free import of the Chinese yarn has been a 30 per cent fall in the domestic cocoon and yarn prices. That is why silk growers, who are mostly concentrated in Karnataka – the state accounts for about 65 per cent of the country's silk production have been demanding imposition of appropriate duties on the import of silk yarn.

The Chinese yarn is preferred by the weavers, especially by those operating the power looms, because of its better strength. But even when the exporters' genuine needs were met under the earlier import licensing arrangement, quantities of the Chinese yarn had continued to be smuggled through Nepal and Bangladesh. This was a consequence of the gap between domestic production and the industry's demand. In fact, the government's decision to allow free import of the Chinese yarn was based on the premise that it would discourage smuggling. According to the government, there was a shortfall of over 4,000 metric tonnes of raw silk, only about half of which used to be met through imports by the exporters under the earlier arrangement. But the free imports had swung the pendulum in the opposite direction. The slump in prices in Ramanagram, outside Bangalore, which boasts of running Asia's biggest cocoon market, would indicate that Chinese yarn had been coming in substantial quantities. What troubled the local growers even more was that the Chinese yarn was priced considerably lower. A number of silk farmers in the Ramanagram market insist that the Chinese were dumping the yarn at prices that were buffeted with hidden subsidies. Since the Chinese yarn trade was in government hands, there was no way to determine the extent of the subsidies.

With the Karnataka state assembly elections due later this year, many silk farmers hope that union commerce minister Ramakrishna Hegde will have to take note of their plight and impose duties on the Chinese yarn imports to bring its price in line with the domestic market. It has been suggested that such tariffisation would not clash with the WTO regime since a large number of those engaged in silk growing in Karnataka were small and marginal farmers. Such a move may provide some solution in the short run. In the longer-term, there would be no option but to increase domestic production since over 90 per cent of the silk yarn produced in the country was used up by the weaving industry as against a mere 15 per cent in the case of China, which left it with huge surpluses for export. A project funded by the Japan International Co-operation Agency (JTCA) in Mysore has, over the past two years, succeeded in hybridising the superior Japanese bivoltine silkworm variety so that it can withstand the Indian climatic conditions. This particular variety produces high grade yarn that compares favourably with the Chinese. It can also augment production per acre in a substantial manner. But since the Japanese hybrids are more vulnerable to viral and other infections, these require better hygienic conditions, including separate rearing rooms. All these call for fresh capital investments which most small and marginal farmers can hardly afford. The recent slump in cocoon/yarn prices has left them in an economic condition where they can hardly venture to experiment with the new varieties. The state government's extension services need to do better than they have.

According to the Karnataka government's department of sericulture, it has identified 3,000 families for introduction of the Japanese variety in the next financial year. The department is still trying to arrange Rs 2 crore it thinks it needs to meet the capital costs of the proposed extension scheme. That would mean less than Rs 7,000 in subsidy per farming family. That might be just enough to put a roof on the rearing room provided the former can afford to build it in the first place. By contrast, the Central Silk Board has got new machinery designed for reeling and other operations. This machinery, no doubt, will increase productivity but will also cut jobs. Well, the government is offering a package for those inclined to take the machinery which includes 30 per cent outright subsidy, 60 per cent as interest free loan, leaving a bare 10 per cent to be invested by the prospective entrepreneur. Why cannot the Karnataka government do something similar for the small and marginal silk farmers who would need it even more and afford it even less?

Protection of New Plant Varieties

A Developing Country Alternative

Suman Sahai

The UPOV system seeks to protect the interests of powerful seed companies who are the breeders. Our laws should focus on protecting the interests of farmers as producers as well as consumers of seed. An alternative treaty being discussed currently would provide a forum for developing countries to implement their farmers' and breeders' rights.

AFTER the conclusion of the Uruguay Round, India as well as other developing countries have accepted the *sui generis* option for the protection of new plant varieties. India has already drafted a Plant Variety Protection Act. In order to implement the law concerned with the protection of new varieties in each other's countries, nations need to work through an international platform. The Union for the Protection of New Plant Varieties (UPOV) is such a platform through which industrialised nations regulate the implementation of plant breeders' rights. UPOV came into being in 1961 with its headquarters in Geneva and it is the only platform of its kind today. There are over 30 members in UPOV, all developed countries.

Gene Campaign has opposed India joining UPOV because it does not address our needs. India must rise to the challenge of crafting an alternative treaty to UPOV that will meet the needs of developing countries. We need to provide a forum that will grant Farmers' Rights as well as Breeders' Rights and be geared to work towards food and nutritional security. However, the agriculture ministry is of the view that India should become a member of UPOV, a forum whose working is totally alien to the conditions of agriculture prevailing here. There is no concept of Farmers' Rights in the UPOV system; rights are granted only to the breeder. The UPOV system does not need to protect the rich farming community of Europe and America in the way that our seed laws will have to protect our farmers. It is clear that we have goals which cannot be fulfilled by the UPOV system. The UPOV system embodies the philosophy of the industrialised nations where it was developed and where the goal is to protect the interests of powerful seed companies who are the breeders. In India the position is very different. We do not have big seed companies in essential seed sectors and our major seed producers are farmers and farmers' co-operatives. Logically, our law will have to concentrate on protecting the interests of the farmer in his role as producer as well as consumer of seed. Once we are in the UPOV system, we shall be forced to go in the direction that UPOV goes. It is a system headed towards seed patents. Starting with its first amendment in 1978 when limited restrictions were placed on protected seed, the 1991 amendment which is now ratified, brought in very strong protection for the plant breeder. In this version, breeders are not exempt from royalty payments for breeding work and the exemption for farmers to save seed has become provisional. The UPOV now also permits dual protection of varieties, that means in the UPOV system, the same variety can be protected by Plant Breeders' Right (PBR) and patents. It would seem obvious that UPOV is ultimately headed towards patent protection for plant varieties. It would be wise for India to stay out of a system which has plant patents as its goal since that is neither our goal nor our interest.

The UPOV laws are formulated by countries which are industrial, not agricultural economies. In these countries the farming community is by and large rich and constitutes from 1 to 5 per cent of the population; their agriculture profile is completely different from ours. These countries do not have large numbers of small and marginal farmers, yet subsidy to agriculture is of a very high order. Because they produce a massive food surplus, farmers in industrialised countries get paid for leaving their fields fallow. In Europe agriculture is a purely commercial activity. For the majority of Indian farmers however, it is a livelihood. These farmers are the very people who have nurtured and conserved genetic resources, the same genetic resources that breeders want to corner under Breeders' Rights. We must protect the rights of our farmers and these rights must be stated unambiguously in our *sui generis* legislation.

Almost all agricultural research and plant breeding in India is financed with taxpayers' money. It is conducted in public institutions like agricultural universities and institutions of the Indian Council of Agricultural Research (ICAR). This research belongs to the public. The laws of UPOV on the other hand are formulated by societies where seed research is conducted more in the private domain than in public institutions; where private capital finances plant breeding. Because they invest in expensive breeding methods and need to secure returns on their investments, seed companies in Europe and North America seek market control through strong IPRs. These conditions do not apply in India.

Another feature that makes the UPOV system unsuitable for us is its sheer cost. At a seminar organised jointly by the Indian Council of Agricultural Research (ICAR) and the UPOV in Delhi last year, the figures that were presented for obtaining an UPOV authorised Breeders' Right certificate could be several thousands, even lakhs. Such rates will effectively preclude the participation of all but the largest seed companies. There certainly will be no space in such a system for small companies, farmers' co-operatives or farmer/breeders.

In developing countries, farmers play a significant role as breeders of new varities. They often release very successful varieties by crossing and selection from their fields. These varieties are released for use as such. In addition, in almost all cases, these varieties are taken up by agriculture universities as breeding material for producing other varieties. Such farmer/breeders would not be able to participate in an expensive system like the UPOV. Their material along with their labour and innovation would be misappropriated by those with the money to translate such valuable germplasm into money-spinning varieties registered in the UPOV. Poor farmers unable to pay the costs of getting an UPOV certificate, would tend to sell their varieties for small sums to larger seed companies. This will be the ultimate irony, creating an institution that will snatch away from the farmer his material and his opportunities. Gene Campaign and the Centre for Environment and Development present here an alternative treaty to UPOV to provide a forum for developing countries to implement their farmers' and breeders' rights. This treaty is called the Convention of Farmers and Breeders, CoFaB[1] for short. CoFaB has an agenda that is appropriate for developing countries. It reflects their strengths and their vulnerabilities. It seeks to secure their interests in agriculture and fulfil the food and nutritional security goals of their people. This treay between developing countries seeks to fulfil the following goals:

- Provide reliable, good quality seeds to the small and large farmer.

– Maintain genetic diversity in the field.

– Provide for breeders of new varieties to have protection for their varieties in the market, without prejudice to public interest.

– Acknowledge the enormous contribution of farmers to the identification, maintenance and refinement of germplasm

– Acknowledge the role of farmers as creators of land races and traditional varieties which form the foundation of agriculture and modern plant breeding.

– Emphasise that the countries of the tropics are germplasm owning countries and the primary source of agricultural varieties.

– Develop a system wherein farmers and breeders have recognition and rights accruing from their respective contribution to the creation of new varieties.

The salient features of CoFaB are as follows:

(1) *Farmers' Rights*: Each contracting state will recognise the rights of farmers by arranging for the collection of a farmers' rights fee from the breeders of new varieties. The farmers' rights fee will be levied for the privilege of using land races or traditional varieties either directly or through the use of other varieties that have used land races and traditional varieties, in their breeding programme. Farmers' rights will be granted to farming communities and where applicable, to individual farmers. Revenue collected from farmers' rights fees will flow into a National Gene Fund (NGF) the use of which will be decided by a multi-stakeholder body set up for the purpose. The rights granted to the farming community under farmers' rights entitles them to charge a fee from breeders every time a land race or traditional variety is used for the purpose of breeding or improving a new variety. Rights granted to the farmer and farming community under farmers' rights are granted for an unlimited period.

(2) *Breeders' Rights:* Each member state will recognise the right of the breeder of a new variety by the grant of a special title called the plant breeders' right. The plant breeders' right granted to the breeder of a new plant variety is that prior authorisation shall be required for the production, for purposes of commercial and branded marketing of the reproductive or vegetative propagating material, as such, of the new variety, and for the offering for sale or marketing of such material. Vegetative propagating material shall be deemed to include whole plants. The breeder's right shall extend to ornamental plants or parts of these normally marketed for purposes other than propagation when they are used commercially as propagating material in the production of ornamental plants or cut flowers.

Authorisation by the breeder shall not be required either for the utilisation of the new variety as an initial source of variation for the purpose of creating other new varieties or for the marketing of such varieties. Such authorisation shall be required, however, when the repeated use of the new variety is necessary for the commercial production of another variety. At the time of application for a plant breeders' rights, the breeder of the new variety must declare the name and source of all varieties used in the breeding of the new variety. Where a land race or farmer variety has been used, this must be specially mentioned.

In order to promote a more sustainable kind of agriculture and without any prejudice to the quality and reliability of the new variety, CoFaB enjoins breeders of new varieties to try to base the new variety on a broader rather than a narrower genetic base, in order to maintain greater genetic variability in the field. Further a variety for which rights are claimed must have been entered in field trials for at least two cropping seasons and evaluated by an independent institutional arrangement. The breeder at the time of getting rights will have to provide the geneology of the variety along with DNA finger printing and other molecular, morphological and physiological characteristics. The right conferred on the breeder of a new plant variety shall be granted for a limited period, depending on the variety.

In the event of a variety becoming susceptible to pest attack, the normal period of protection may be curtailed to prevent the spread of disease. In order to monitor this, periodic evaluations will be undertaken. The breeder or his successor shall forfeit his right when he is no longer in a position to provide the competent authority with reproductive or propagating material capable of producing the new variety with its morphological and physiological characteristics as defined when the right was granted. The breeder will also forfeit his right if the 'productivity potential' as claimed in the application is no longer valid.

To give primacy to the goals of food security, it has been provided in CoFaB that the right of the breeder will be forfeited if he is not able to meet the demand of farmers, leading to scarcity of planting material, increased market price and monopolies. If the breeder fails to disclose information about the new variety or does not provide the competent authority with the reproductive or propagating material, his right will be declared null and void.

Note

1 The CoFaB booklet containing the full text of the treaty can be obtained by sending a self addressed envelop (size 25cm x 18cm) bearing stamps worth Rs 20/- to Dr Suman Sahai, J-235/A Sainik Farms, Khanpur; New Delhi 110062

Mirror Politics: 'Fire', Hindutva and Indian Culture

Mary E John
Tejaswini Niranjana

With the immediate danger of a possible ban now behind us, it may be useful to look at 'Fire' more carefully and raise certain questions in the context of the recent controversy and acclaim. Shouldn't we go beyond identifying good and bad images of women to investigate the critique of patriarchy that a film like 'Fire' provides, and the characterisation of the feminist self that it makes available?

THE film 'Fire', directed by the Canada based film-maker Deepa Mehta, made a relatively unobtrusive entry into India a few years ago after its initial release in the west and other parts of the world: It was shown on video by a number of women's groups and at film festivals, and received mixed reviews in the Indian press, the international awards notwithstanding. Last year the film was cleared by the censor board for commercial screening, and, to the pleasant surprise of many, without any cuts. Indeed, 'censorship' took the unusual but significant turn of demanding solely a change of names – 'Sita', the younger sister-in-law, was to be renamed 'Nita'.

A few weeks after its opening across the country, the film hit the headlines with accounts of attacks by Shiv Sainiks who targeted the cinema halls in Mumbai and Delhi where 'Fire' was being viewed. In Mumbai the Shiv Sena action was fuelled by reports of a special screening for women only. In Delhi, the reasons cited by Shiv Sena and Mahila Aghadi members for the film's offensiveness ranged from its 'vulgarity' and 'lesbianism', to the "five-minute long abuse of an Indian national (Javed Jaffrey) by a Chinese". Soon after these protests and the controversy that ensued, Bal Thackeray himself publicly announced that he would have no objections to the film being re-released on condition that the names of both the female protagonists Radha and Sita/Nita be switched to Shabana and Saira.

As a result of the attacks at the New Empire and Cinemax theatres in Mumbai and Delhi's Regal cinema, 'Fire' was withdrawn from these cities. In the rest of the country, however, the controversy over the film had the opposite effect of expanding the number of venues and shows; in cities like Hyderabad and Bangalore, tickets were only available in black. Large public protests condemning the Shiv Sena action and the withdrawal of the film were organised in many places, spanning representatives from the cinema and the arts as well as feminist, gay and lesbian organisations. Numerous articles, even editorials, made their appearance. The opinions and responses of the director Deepa Mehta were especially sought after, in print and on television

It is worth underscoring the significance of the overwhelming support for the film and the broad-based public outcry against the attacks on it. As feminists who participated in the opposition against the film's unwarranted withdrawal, both of us were called upon to discuss the film, amidst the widespread acclaim that surrounded it. Women's organisations – and especially gay and lesbian groups who played a leading role in these counter-protests – raised key issues relating to questions of 'obscenity', on the one hand, and gay/lesbian rights, on the other. On the whole, however, these issues tended to get deflected if not lost in the dominant focus on the Shiv Sena attacks. Moreover, critiques of the film itself were muffled in an overall atmosphere that sought to protect the fundamental right of freedom of expression, and maintain as great a distance as possible from the agendas of the Hindu right.

Recent news reports tell us that, in spite of being sent back to the censor board, the film has been cleared without any changes whatsoever. In Delhi, Regal cinema is once again screening the film. This is a significant achievement. With the immediate danger of a possible ban now behind us, it may perhaps be useful to look at 'Fire' more carefully, and raise certain questions in the context of the recent controversy and acclaim. Does our wholehearted opposition to the Shiv Sena protests require that we celebrate the film? What are the responsibilities of feminist film criticism in the current context? Should not we go beyond identifying good and bad images of women to investigate the *critique of patriarchy* that a film like 'Fire' provides, and the *characterisation of the feminist self* that it makes available? Indeed, we would like to argue that a critique of the film is necessary in order to advance our understanding of questions of feminism and sexuality today.

'Fire' represents patriarchy as being founded on the denial of female sexuality. A whole range of oppressive structures targeting myriad aspects of women's lives become obscured in this narrowing of critical range, this compulsion to name a root cause of women's subordination. Control of female sexuality is surely one of the *ideological* planks on which patriarchy rests. But by taking this idea literally, the film imprisons itself in the very ideology it seeks to fight, its own version of authentic reality being nothing but a mirror image of patriarchal discourse. 'Fire' ends up arguing that the successful assertion of sexual choice is not only a necessary but also a sufficient condition – indeed, the sole criterion – for the emancipation of women. Thus the patriarchal ideology of 'control' is first reduced to pure denial – as though such control did not also involve the production and amplification of sexuality – and is later simply inverted to produce the film's own vision of women's liberation as free sexual 'choice'.

This reduction of woman to her body is accompanied by the equation of patriarchy with Indian culture and tradition, epitomised by the imprisonment of 'Radha' and 'Sita' (later changed to Nita) within the confines of the Hindu joint family. In a televised interview some years ago, Deepa Mehta had said that the film was about the changes in Indian tradition due to the new openness fostered by globalisation. Repressed female sexuality thus emerges yet again as the quintessential emblem of an oppressive 'traditional' culture in need of transformation by outside forces. The counter-agendas of the Hindu right – claiming to protect 'Indian culture' from the inroads of 'alien' sexualities – are but a mirroring of this prior construction and staging, whose colonial roots need no reiteration here.

The attraction and unconventionality of the film, especially for women, centre in its depiction of a lesbian relationship. And yet, Deepa Mehta has repeatedly disavowed any such identification: The film, she avers, is about loneliness, not lesbianism. "Lesbianism is just another aspect of the film. It is probably the last thing they resort to when they derive a certain confidence out of the relationship" (*Indian Express* interview, December 13, 1998). In another interview, she said that

lesbianism was 'only peripheral' to the theme of the film. "It is about how to be compassionate and in fact the film propagates tolerance" (December 5, 1998, PTI from *Matrix*). Most interviewers see her as 'fighting the lesbian label' – as she herself puts it: "If anything, the film's about choices. Hindu concepts of tolerance, non-judgmentalism, compassion. The incredible loneliness of being that's often the lot of women in India" (*Outlook*, November 30, 1998). Are we witnessing another kind of mirroring here, this time of hindutva, which claims that Hinduism's supreme virtue is, indeed, tolerance?

Taking their cue from Mehta's attitude, Madhu Jain and Sheela Raval in *India Today* ('Ire over Fire', December 21, 1998) speak about placard-waving lesbians stealing the limelight during the candlelight protest outside Regal cinema in Delhi. The "broader issue of freedom of expression and tolerance had got derailed by the lesbian debate", they say. A 'surprised Mehta', according to them, declares: "I can't have my film hijacked by any one organisation. It is not about lesbianism, it's about loneliness, about choices" (p 80). Shabana Azmi, who won an international award for her portrayal of Radha in the film, also participated in the print media discussion of the controversy. According to her, "love between individuals belonging to the same sex is only one of the issues raised by 'Fire'. The larger issue is that of empathy" [Azmi 1998].

Most film critics, with some important exceptions, have also failed to engage with the lesbianism of the film, preferring to look upon it as incidental. In the film itself, the narrative is set in motion by the negative, even traumatic, sexual experiences of the two sisters-in-law in their respective marital relationships: Radha, who is infertile, has to contend with a celibate husband who must also 'test' his celibacy in bed; Nita's boorish husband has rough sexual intercourse with her after their marriage, but spends the rest of his time with his girl-friend, a Chinese hairdresser. Though the younger woman displays some agency of her own – impulsively changing into men's trousers, lighting up a cigarette and putting on dance music soon after her arrival from a loveless honeymoon, and kissing her sister-in-law at an early moment in the film – this does little to mitigate the overall sense of these women's sexual victimisation. Such negativity therefore feeds the all too common stereotype that people become gay when deprived of normal sex. One is reminded of the media coverage over a decade ago when two police-women in a small town in Madhya Pradesh decided to get married. Elaborate accounts of these women's personal histories were produced to show how it was their suffering at the hands of a cruel society that drove them to such a decision; little allowance was made for the possibility of an affirmative sexual relationship. Both in this story and in 'Fire', the women are depicted as relating to each other only due to the non-availability of men.

It is one thing for a particular film to suffer from a reductive view of how patriarchy operates. But it is quite another when feminist critics effectively reproduce the problems inherent in the film on an even larger scale. Carol Upadhya's remarkable commentary on 'Fire' (*EPW*, December 12-18, 1998) does this through a form of argumentation that also proceeds via a series of mirrors: Indian culture is nothing but the male control over female sexuality, a belief held by the Hindu right, but also by our NRIs and the educated middle classes more generally. Stray conversations initiated by strangers on trains about the sexual permissiveness of the west are presented by Upadhya as ultimate proof of this essential core of Indian tradition. In Upadhya's view the women's movement in the west has successfully linked the struggle for gender equality with sexual freedom. However, Indian feminists, she argues, have been silent on the issue, and urgently need to launch a counter-attack by taking their cue from 'Fire'. This silence is all the more culpable because control over female sexuality, says Upadhya, is at the centre of all the other issues – of violence, family, caste and class – which Indian feminists had thought more pressing. The essay concludes by calling for a direct attack at the "root of both patriarchy and caste/class hierarchy" through the demand that "control over one's sexual and reproductive life, including free choice of sexual partner of either sex" be a fundamental right protected by law.

One is hard put to know where to begin in untangling the series of assumptions and conflations being made in this commentary. Are we being asked to believe that patriarchy and gender oppression have a single root cause located in the lack of personal sexual choice? When the women's movement first coined the slogan 'the personal is the political' the point was surely not to reduce the political to an unproblematic notion of the personal in which 'only the personal is political'. Indeed, the sharpest feminist critiques were those that interrogated the ideological construction of free choice, the compulsory institutions of heterosexuality, the sexual politics of visual pleasure, the patriarchal structures of the law, and so on. By Upadhya's logic, since most westerners "accept the idea that everyone has a right to define and control his or her sexuality and to choose their own relationships" (p 3177), patriarchy and domination should have vanished in the west, but for the presence of the Christian right.

This is not the place to provide an account of the ways in which sexuality has been a subject of activism and inquiry in the Indian women's movement and elsewhere. We have come to question the very notion of a conspiracy of 'silence' on our part.[1] Moreover, the idea that the west has successfully addressed and resolved issues of sexuality, while we remain mired in our repressions and misplaced priorities, is not just patronising, but open to considerable doubt.[2] This way of posing the problem takes us nowhere because it *reproduces exactly the same play of mirrors* in which the Hindu right is trapped. (A little over two years ago, women from the Hindu right attacked the Miss World contest in Bangalore for its encouragement of 'alien' western sexual norms. Why did not we go all out to defend and celebrate the beauty pageant's liberatory potential for us all?)[3] No one would deny that as a subject of scholarship, the field of sexuality in India is a relatively new one and still largely uncharted. But precisely for this reason it is conceptually and politically hazardous to jump to the most far-reaching conclusions on this theme.

A film like 'Fire', which draws on the aesthetic/political space of the alternative 'art' film, raises corresponding expectations regarding its feminist politics. We have already remarked on how women's oppression is seen to be exclusively anchored in the denial of female sexuality. All the characters in the film are actively sexualised in various ways, with the possible exception of the old widowed mother, bedridden and unable to speak. The prisoner of a paralytic body, she can only react helplessly, but with anger and disgust, at the displays of sexuality she has to see and hear. Otherwise, female agency is overwhelmingly translated in sexual terms. In a marginal figure like the Indian-Chinese girl-friend of the younger brother, agency takes the form of refusal – refusal to marry into and be suffocated by the joint family system. Subsequently we hear of her decision to leave India for a better life in Hongkong, suggesting that her sexual independence has no future here, not even in the heart of the capital, but requires the more liberated space of an east Asian modernity. (It is her father who berates

Javed Jaffrey about conditions in India, including its racism.)

As the relationship of the two sisters-in-law evolves, so too do their confrontations with their husbands, which is how the central narrative is propelled to its ultimate climax. The dramatic conclusion of the film shows Radha joining Nita in pouring rain at the Nizamuddin dargah after her 'ordeal by fire'. Simultaneously evoking 'sati' and 'Sita', but also dowry deaths, 'fire' has evolved into a powerful western stereotype of the Indian woman's annihilation by Hindu religion and culture.[4] Here, 'fire' symbolises the purity and goodness of the space of the couple, which is thus contrasted to that of the joint family, as though patriarchy lodges solely in the latter, and not in contemporary society at large, both public as well as private, 'traditional' as well as 'modern'.

But this is not the only way in which the agency of the women is structured by the film. In a significant scene, Radha discovers the servant of the house masturbating in front of a porn film (secretly procured from the family video shop). Radha's horror and disgust more than matches that of the mother-in-law; she demands that he leave the house, in spite of his pleas, and in spite of his threats to tell the family what he knows about her and Nita. Thus, in the film's own representational practices, sexual freedom takes the form of affirming the right of the two women to 'express' their sexuality, to leave the household to build a new life for themselves, but the affirmation is made against the vilified sexuality of the servant, whose actions result in his being cast out by Radha herself. In other words, we are shown the emergence of the feminist self being enabled in part by the rejection of other claims to sexual expression. The contrasts are stark: the women are treated with high seriousness, the male servant provides comic relief. The lighting and camera angles play up the women's beauty and satirise the servant as misshapen. The expressive and emergent feminist self becomes thus coded in the film as upper caste and middle class, defined against subjectivities that are neither.

The class-caste prejudices of the film are frequently echoed, albeit in a different mode, in the language of those protesting the protests against 'Fire'. Women's rights were commonly defended against the 'lumpen' and 'lunatic' vandalism of the Shiv Sainiks. Women Shiv Sainiks, members of the Mahila Aghadi, who led the charge in Mumbai were variously depicted as pawns, a "willing vehicle for diversionary violence" by male Shiv Sainiks, but also as 'mean' and 'phantasmagorial', stupid and ignorant ('The wrong end of the telescope', *The Times of India*, December 6, 1998). Over and over again, these protesters were condemned for their lack of decorum, a charge which has also been levelled in the past against women's groups, dalit protesters and left activists. Practically everyone, including the BJP, has sought to distance themselves from the attacks on the film, making it clear that 'civil society' will not permit modes of protest which are not endorsed by norms of parliamentary democracy. Our comment should not be read in any way as a gesture of support for women Shiv Sainiks' attacks on 'Fire'; all we want to do is draw attention to how we affirm the idea of women's 'liberation' in opposition to the repressed 'Bharatiya Nari' whose 'violent sublimation' is manifested in going 'berserk'. Rethinking these simple oppositions may help us interrogate those ideas of liberation which have entered feminist common sense and thus become exempt from critical scrutiny.

The counter-protests – particularly those by lesbian and gay groups – have helped to foreground two critical issues, both of which have been unsatisfactorily addressed in the women's movement so far. The first is the question of 'obscenity', which dates back to the 1970s, when women's groups across the country blackened film hoardings with explicitly sexualised images of women. We have come a long way from the days when depictions of sex and violence were automatically clubbed together as a common problem for the movement. However, the dominant feminist attitudes towards the so-called 'objectification' of women in the media have not really changed significantly. In fact, these attitudes are currently undergoing a revival amidst widespread panic over the perceived proliferation of visual sexual images under globalisation. During the 'Fire' controversy, many feminists were, perhaps for the first time, on the 'other' side, joining the ranks of those who sought to criticise the relationship between sexuality, obscenity and censorship. Does this indicate, then, that a questioning of hitherto well-entrenched positions is under way?

It is as yet unclear whether such a conclusion is justified, especially in light of the visual politics of the film itself on the very question of obscenity. 'Fire' actively promotes the othering of pornography by suggesting that pornography's primary function is to corrupt. The potential objects of such 'corruption' range from non-middle class men like the servant to the bodies and minds of children (one scene focuses on young schoolboys eager to check out blue films at the video shop). Through these self-reflexive gestures, 'Fire' effectively elevates itself onto an aesthetic level of distinction unsullied by the immorality and indecency associated with pornographic sex.

Some commentators have tried to undermine the Shiv Sainiks' claims of protecting Indian culture from immorality, by providing long lists of all the "obviously prurient and semi-pornographic films" in Delhi which the Sena members left untouched during the attacks on 'Fire' [Bidwai 1998:9]. One suspects, therefore, that a wholly different category is being employed in the dominant discussions of 'Fire': The freedom of expression of 'Fire' cannot be censored because it is not obscene: rather, it is 'art', unlike pornography, beauty contests, or commercial Hindi cinema.

It is not accidental that the very sections of the women's movement most outspoken against obscenity have also tended to view sexuality primarily as a gay and lesbian problem. As lesbian feminists have had to point out repeatedly, such an understanding not only naturalises heterosexuality as institution and 'choice', but completely fails to recognise the multiple structures of heterosexual privilege which have marginalised homosexuality in the first place. Whatever subversive potential 'Fire' might have had (as a film that makes visible the 'naturalised' hegemony of heterosexuality in contemporary culture, for example) is nullified by its largely masculinist assumption that men should not neglect the sexual needs of their wives, lest they turn lesbian.

It is particularly disingenuous that most commentators on the 'Fire' controversy have been writing as though the Hindu right in general and the Shiv Sena in particular were the sole proprietors of patriarchy and sexual intolerance. Only a few years ago, leftist writers in Andhra were second to none in their vituperative attacks on some feminist Telugu poets for writing allegedly 'blue' poetry. In a different vein, during the 16th congress of the CPI(M) held in Calcutta in October 1998, the general secretary of the All India Democratic Women's Association (AIDWA) publicly and dramatically withdrew her membership from the central committee in order to draw attention to the resilient patriarchal structures of the party, which has no women activists represented in any of its higher bodies.[5]

We may have some justification in scoffing at the Mahila Aghadi for believing, for instance, that lesbianism would lead to the end of reproduction and future

population growth. The occasional commentary provides bits of information about an authentic Indian tradition of lesbianism as further proof of 'their' ignorance about 'our' culture. But how well-informed are 'we' really, or Deepa Mehta for that matter? If the last decade has witnessed greater visibility around gay and lesbian issues, this is overwhelmingly due to the efforts of gays and lesbians who have received too little public support from the women's movement or other democratic organisations. Heterosexual feminists in India show few signs of being aware of the costs and risks lesbians bear on a daily basis, both in their private and professional lives, nor of their complex strategies of survival.

Nevertheless, the 'Fire' controversy can justly claim credit for having made lesbianism publicly visible, even acceptable. The term is now frequently heard in the media, and continues to be a common subject in conversations. School children in Delhi, we have been told, refer to 'Fire' as a film about 'shaadi between women'. At a women's studies refresher course for college teachers held at Jadavpur University in Calcutta during the height of the controversy, participants demanded that homosexuality be debated at an early point in the course. Many gays and lesbians across India are producing readings of 'Fire' that foreground the issue of same-sex relationships. A broad-based 'Campaign for Lesbian Rights' has been formed in Delhi in the wake of the controversy to build awareness that "discrimination on the basis of sexual orientation/preference is a violation of basic human rights", and to counter the widespread misrepresentation of lesbian lives in the media and society. 'Fire' has thus become a rallying point for gay people who see it as an occasion to reiterate their commitment to the public discussion of sexuality and sexual preference.

Such is the democratising potential of the commercial circuits of the cinema in India that the controversy around 'Fire' has been able to feed into the public sphere and create spaces for hitherto marginalised struggles that go much beyond the problematic politics of the film itself. We have argued, however, that attention must be paid to the film's specific framing of questions of women and sexuality because of the impact such framing is likely to have on feminist politics, and more generally on popular notions of feminism. We suggested that 'Fire's' unreflective class-caste assumptions help characterise the feminist self as one carrying certain markers of privilege even as it claims a form of victimhood. We also pointed out that 'Fire's' representation of the relationship between patriarchy and female sexuality mirrored the former's reductive biologism. The task that lies ahead for the women's movement would involve, it seems to us, not only a refusal of the normalisation of the heterosexual self but also a dismantling of the feminist self's hidden caste-class and community markers. In this task we need to shape a politics that does not lapse into the mirror-play retailed by the film, the Hindu Right, and some liberal/left initiatives.

Notes

[We would like to acknowledge the use of the *Fire* dossier at the Centre for the Study of Culture and Society, Bangalore, and the media file at the Centre for Women's Development Studies, New Delhi.]

1 To take but a few examples from within scholarship in India, see Uberoi (1996), Thapan (1997) and John and Nair (1998).

2 The western literature on the subject might be vast; but this hardly implies that questions of sexuality have been resolved. For different accounts – sympathetic but critical – of the feminist debates or 'sex-wars' of the 1980s, see Rubin (1984), Rich (1986) and King (1990). Gayle Rubin's essay is particularly noteworthy for its sense of disappointment, if not betrayal by the exclusionary sexual politics of other feminists.

3 The Bangalore contest was attacked by both left and right groups, including AIDWA/CPM, NFIW/CPI, KRRS, and the BJP. For a fuller discussion of the limitations in the political vocabulary employed by the protestors against the beauty pageant, see John (1998) and Niranjana (1999).

4 For a fuller elaboration of this stereotype in the context of the United States, see Uma Narayan's discussion 'Cross-Cultural Connections, Border-Crossings and "Death by Culture" ' in Narayan (1997).

5 In its 10-page coverage of the CPI(M) congress, even as reputed a journal as *Frontlin* (November 6, 1998), which frequently take up the cause of gender justice, found itsel unable to do more than 'mention' the issu raised by the AIDWA general secretary. It i ironic that right wing political leaders lik Uma Bharati have been much mor forthcoming in the media about the problem faced by single women in the BJP.

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State Regulation *vs* Market Forces

Experience of India and Russia

Debdas Banerjee

Policy-makers and academicians from India and Russia met at a joint seminar, 'State Regulation versus Market Forces in Transitional Economies'. They discussed the similarities and differences in the two countries' situation at the beginning of economic reforms and in their experience of the reforms.

THE Indo-Russian Joint Seminar, as part of the Indo-Russian Joint Commission for Co-operation in Social Sciences, working since 1992, was held at Centre for Studies in Social Sciences, Calcutta in collaboration with Indian Council of Social Science Research, on December 10 and 12, 1998. This year the theme was: 'State Regulation versus Market Forces in Transitional Economies'. "Analysis of positive as well as of negative experiences of our countries in carrying reforms therein, will help to find solution of the problems arising in the course of their implementation and to secure necessary correction and improvement in the reforms within the concrete environment peculiar to each of the countries" – this message from J N Selezniov, (chairman of the State Duma of the State Assembly of the Russian Federation) briefly stated the objective of the academic exchange.

Igor Bratischev's (MP and chairman, Parliamentary Sub-committee for Regional Socio-economic Development, the State Duma of the Federal Assembly of the Russian Federation) paper, 'Russia: Economic Foundations for a National Anti-Crisis Programme', explained the man-made systemic socio-economic crisis in Russia. The situation this early autumn can only be described in terms of the 'theory of catastrophes'. The main cause of the national catastrophe that Russia experiences now is an anti-national orientation of the economic and political course being implemented by the comprador, mafia-type, corrupted rulers of Russia; the course which is directed to dismantle the country's economic potential, undermine its competitiveness at both international and domestic markets, sharply reduce production in the leading sectors of national economy, and obviously ignore social factors. The reforms during 1991-98, implemented by force and under control of foreign experts, have led to a disintegration of the economy, degradation of the science, culture, industries and agriculture, pauperisation of 80 per cent of Russia's population, and a sharp lowering of Russian citizen's longevity. The country is quickly transforming into a raw material appendage of the west. The collapse of the financial system in August 1998 was the result of accumulated indebtedness in the form of a financial pyramid made of sovereign short-term bonds, capital flight, and the loss of confidence in the authorities. The monetarist policy of socio-economic transformations implemented by the government during 1991-98 became the main cause of Russia's misfortunes.

Sergey Glaziev's (director, Research and Information, Federal Council of the Federal Assembly of the Russian Federation) paper, 'Key Measures for a Transition to Economic Growth', analysed the switch of money supply into speculation and the suppression of inflation by means of restricting money supply, that have caused the demonetisation of the real sector of the economy and, consequently, a payment crisis and a budget crisis. The state policy of promoting and supporting speculative instruments of market regulation, particularly the emission of super-high-yield government bonds and the build up of the government debt, resulted in an even more rapid outflow of capital from the productive sphere into treasury bills speculation, a further aggravation of the payments crisis, and a decrease of tax revenues. The second circle of cause and effect constitutes the collapse of demand, curtailment of production, increase of costs, and the decline of competitiveness. These two vicious circles induce a third: the lowering of production efficiency and the reduction of investments. The fourth circle, that is, the bankruptcy of productive enterprises, loss of national control over them, and the colonisation of the country, bring full circle the negative feedback, which perpetuates the processes of economic depression and the degradation of the productive sector. The de facto failure of mass privatisation as an instrument for the creation of effective property owners, against the backdrop of the outflow of capital from the productive sector and the disintegration of the economy, encouraged the development of predatory motivations in business behaviour. To maintain a balance between inflation, growth and currency stabilisation, the central bank and the government are forced to guarantee high returns on investments in the government debt pyramid that prevents the growth of aggregate demand in the currency and commodity markets. The following parametric values summarise the current state of equilibrium:

- Treasury bills yields – 20-30 per cent;
- central bank refinancing rate – 20-30 per cent;
- profitability in the productive sector – 5-7 per cent;
- capacity utilisation in manufacturing – around 40 per cent;
- unemployment – 10-15 per cent; and
- inflation – around 10 per cent.

Igor Fominsky's (director, All-Russia Research Institute under the Ministry of Economy of Russia for the Studies of External Economic Relations) paper, 'The Role of External Economic Policy in Protecting Russia's National Interests', focused on the problems arising out of the increased dependence of the Russian economy on external relations. During Soviet rule the exports-GDP ratio never exceeded 5 per cent, whereas in 1996-97 it was 26 per cent. However, the dependence on fuel and raw material industries as exportables has increased significantly; 43 per cent of the aggregate oil extracted, 34 per cent of oil products, 36 per cent of gas, 72 per cent of mineral fertilisers, and 85 per cent of the domestic production of cellulose are now being exported. On the whole, fuel, raw material and semi-finished products together accounts for over 80 per cent of Russia's exports. The shrinkage of domestic market has made the enormous export growth in these sectors possible. This has precipitated a crisis. The European oil market – the key market for the Russian oil export – is saturated *inter alia* due to the growing oil production in the North Sea. The east European countries in their effort to reduce the imports of oil and oil products have been cutting supplies from Russia. There are certain reserves for expanding export deliveries of Russian gas. The Russian metal exporters are also faced with intense competition.

The hasty liberalisation of the external economic relations has heavily damaged the domestic industry. It was obvious that the manufacturing sector which for decades developed in a closed economy would not stand competition from the west. The situation was further aggravated by the disintegration of the Soviet Union and Comecon, hyperinflation, and collapse of domestic demand. Not only hi-tech industries but also light and food industries

found themselves in dire straits, in turn affecting agriculture. Without the protection of the domestic market, in some manner, it is impossible to build up the capability of the domestic industry to withstand global competition. This is not protectionism but selective support to the branches of production that are capable, within a time-frame, of consolidating their position in the national market and find niches in the world market. With the powerful scientific and technological potential, highly skilled specialists, such as in the defence complex, Russia cannot and must not agree to the role of a raw material adjunct to the west in the world economy. There remains a serious problem of outflow of the Russian capital. This outflow, by the most conservative estimates, twice exceeds the size of inflow of foreign investments into Russia.

The negotiation process for Russia's joining the WTO has been completed. However, the problem of subsidies of crisis-stricken areas permitted by the WTO (for at least first five years) has a crucial dimension for Russia. The question of subsidies assumes importance owing to Russia's geographical position. Russia's climate is among the world's most severe ones. Its size makes communications difficult. Therefore, it is absolutely necessary to separate from compensatory measures the subsidies allotted to the northern regions in order to support normal living conditions, regular communications, stable work of enterprises of nationwide importance there. It is also essential for Russia to develop the trade in services. However, Russia's joining the WTO and General Agreement on Trade in Services (GATS) entails great difficulties. First, the domestic services sector is not fully provided with necessary legal facilities that could regulate this sector and meet the GATS requirements. For instance, there are so far no laws on agency in export and import transactions and on international technology transfer, outdated are the regulations on transportation, and there is no legal facility even for the space exploration sector. Second, the Russian services sector is not competitive enough to actively participate in expanding transactions.

Prabhat Patnaik's (Jawaharlal Nehru University) paper, 'On Some Theoretical Premises Underlying the Advocacy of State Intervention', raised questions about state intervention in the contemporary world. The territorial jurisdiction of the state in question has usually been taken to be coterminus with the geographical boundaries of the nation, and within this 'closed' universe the theoretical issues of what the market can achieve, whether the state needs *to intervene and how it should do so, have been debated. However, the question of state intervention in the contemporary world cannot be adequately discussed unless one keeps in mind the fact that the market we are talking about is usually the* international market, while the state is a nation-state. Eclectic propositions like 'we need both the state and the market' are sometimes advanced to bypass the liberalisation debate. In a liberalised economy, the state should continue to provide and even step up investment in infrastructure; it should continue to incur and even step up expenditure on education, health, social safety net, and on social sectors generally. To do all this however the state needs resources. But a liberalised economy necessarily restricts the ability of the state to raise resources. It cannot in such an economy raise much direct tax revenue. Since it has to compete with other countries to attract direct foreign investment it must tax foreign capital lightly. And since it has to maintain a certain inter se equity in the matter of taxing domestic as compared to foreign capital, as well as in taxing personal incomes as compared to corporate incomes, it cannot go far along the direct tax route. Likewise it cannot use indirect taxes for much revenue mobilisation since customs duties have to be cut and this also prevents any significant reliance on excise duties (if domestic producers are not to be discriminated against). And finally, it cannot raise the fiscal deficit too much since this would frighten off speculators and generate overt or covert capital flight. In short, the tasks supposedly left to the state are tasks which the very nature of the economy prevents it from carrying out. Those who are critical of the institutionalisation of a liberalised economy are often accused of merely pursuing some old-fashioned ideological agenda in defiance of the 'common sense' approach of using both the state and the market. Underlying all these positions is the belief that any arbitrary mix of state intervention and market operation is possible, that there exists no tension between the two. While this may be true of Keynesian situations, it is not true in the context of developing economies, and transitional economies, where the argument of state intervention is fundamentally different from what one usually encounters in economic theory.

One clear distinction between the transitional and the developing economies is that the former are switching over from centralised command-control regimes to systems with much greater reliance on market mechanism. Naturally, the institutions that support market operations are largely vestigial or even non-existent in *these countries. On the other hand, the latter while characterised often by conspicuous and pervasive government interventions in the marketplace, do possess a network of institutions to support market* operations. Anindya Sen and Sanjoy Basu (Indian Institute of Management, Calcutta) in their paper, 'Social Norms and Legal Systems in Developing and Transitional Economies', discussed the importance of social and cultural facets constituting a regulatory framework with popular compliance, either on moral grounds or according to a more mundane cost-benefit calculus, as an ingredient of development policy. The gains in terms of long-run economic efficiency might stumble against the short-run problems of misinterpretation and misuse of an evolving legal order by opportunistic agents. A pertinent example would be the boost provided to 'moral hazard' behaviour and speculative investment with more flexible regulations and government guarantees of deposits intended towards more efficient financial intermediation. Again, bad laws and contradictory standard business practices in developing countries may encourage eschewal of a legal system by contracting parties altogether. If a law is as exacting as Article 168 of the Russian civil code, which specifies that a transaction violating any provision of Russian law is void, then prudence dictates alternative arrangements for dispute resolution. The information search costs of transactions for courts would then be extremely high. The dangers of recrimination in public would discourage the contracting parties or disputants from availing of alternative avenues. A viable substitute for extensive legal forms relates to the formulation and implementation of legal rules based on social norms and local business practices under the broad aegis of the existing legal superstructure. The most striking features of a large number of developing countries, especially in Asia and east Europe is the presence of a collectivist social system. Interactions are characterised by high levels of personal trust and reputation among members of specific groups coupled with scepticism about general standards of morality. Hence, exchange and contract enforcement occur, generally, within a group rather than among groups, leading to the dominance of simple tractable exchanges in these communities. Because the entire system is so delicately balanced on trust, a crisis of confidence quickly assumes menacing proportions.

Oleg Maliarov's (Institute of Oriental Studies, Moscow, henceforth IOSM) paper, 'Development Policy and Administration: Indian Experience for Solving Russian Problems – Importance and Limi-

tations', reiterates: "Speaking about development policy and administration in any country we cannot escape characterising socio-economic system thereof". The dismantling of the system of state regulation of the economy and the total rejection of planning in Russia make any development effort devoid of general sense of direction, of overall development strategy, of proper co-ordination in using various regulating tools, of effective control over the state sector and over its impact upon the economy as a whole. The socio-economic course of 'reform', since 1992, has made the Russian economy a transitional one; the destructive transition to semi-colonial backward economy.

The policies of economic transition have been in part involuntary. They are partly a consequence of the conditions attached to the loans of the World Bank and the International Monetary Fund. But the 'extreme form of neo-liberalism' has met ready supporters within Russia itself – E Guidar, A Chubais and others. In fact, Guidar (director, Institute of Studies of Economic Problems of Transitional Period) has recently admitted that at the start of reform in Russia "there was no experience of the transitional economy" in the world, leading to the haphazard course of reform. The experience of India has a particular importance for Russia. Largeness of territory and population, diversity of resource endowments and economic structures of the regions and federal structure are common features of both the countries, creating some similar problems and showing some similar ways of solving them. Indian economy which was essentially a market economy even before the reform was much better prepared for the changes. Unlike in Russia, a certain basic framework of the state sector and state regulation to direct the market mechanism towards desired goals has not been dismantled Again, unlike in Russia, privatisation in India has not been so comprehensive – the core of the state sector continues to function as the base for state regulation though its sphere is being increasingly narrowed down to infrastructure. Credit and investment system, too is mainly controlled by the state allowing the latter to regulate principal financial flows in the interests of economic development, particularly of agriculture. There are certain lessons which could be drawn from Indian experience at this particular stage of the Russian economy. First, the free play of market forces cannot secure rapid modernisation and transformation of the economy at the transitional stage of its evolution. Second, there is the need to make government economic policies and laws, serving as embodiments of the programmes, straightforward. The effective operation of state regulation as well as of the market mechanism is virtually impossible without a modern comprehensive system of information easily available both to the government as well as private agents. The third major field of interest to Russia is the Indian experience in price control over basic fuels and materials such as coal, petroleum products, cement, steel, aluminium, fertilisers, which otherwise would have destabilised the general price level. The Indian experience also shows some deficiencies, drawbacks and loopholes in the implementation of price and distribution controls which certainly should be taken into account. It proves, nonetheless, the need for such controls at times of runaway inflation and scarcities as well as when even marginal shortages can lead to disproportionate distortions in prices, thereby benefiting only the more privileged sections of the population.

One of the crucial problems of ensuring the integrity of the Russian economy with the simultaneous maximum use of local resources and initiative is the optimal division of authority and financial resources within the Russian Federation, between the Federation and the constituent members thereof. The study of the Indian approaches to the centre-state economic relations may help in evolving the strategy and methods of solving this problem in Russia. The change over to the new course of reform increasing the role of the state in the economy requires corresponding changes in the laws including the constitution itself, passing new bills or amending existing laws.

Why the USSR collapsed has been and will remain for years to come a lively topic of discussion. Nirmal Kumar Chandra (Indian Institute of Management, Calcutta) in his paper, 'Fiscal Crisis in the USSR and Contemporary China', analysed the problem of government budget management subject to consumer subsidies on food and housing in the USSR. The doctrine of stable and low food prices has been a part of socialist thinking from the last century However, neither Marx nor Engels recommended extensive consumer subsidies under 'socialism' or the 'first phase of communism'. If each worker is to receive goods exactly according to the quantity and quality of his work, then subsidy for a wide set of goods seems to violate that condition. That is why Engels wrote against free housing for workers under socialism and suggested that rent should include interest on capital as well as ground rent ('The Housing Question' in K Marx and F Engels, *Selected Works*, Vol 1, Moscow, 1954). Evidently, the Soviets failed to find ways to mitigate the consequences of rising subsidies and the net result was a slackening in the rate of investment. China does not face problems of consumer subsidies or budget deficit that plagued the USSR towards the end. After 1978, the Chinese have moved away from the Soviet doctrine of stable prices at a low level for all 'essential' goods, even if it entailed rising consumer subsidies. If they avoided the mistakes of the Soviets, they may yet face a new kind of threat from what may turn out to be 'excessive' decentralisation with the prosperous regions unwilling to yield revenues in favour of the more backward areas.

Aleksandre Liouty's (Institute of Geography, Russian Academy of Sciences) paper, 'Outlying Areas of Russia: Problems and Prospects', pointed out the increased cost of transportation and lack of state price control that make the general situation in Russia more complicated. Higher cost of delivery of fuel, foodstuffs, and other goods to outlying areas put many of the outlying areas on the verge of catastrophe. The question of subsidy should take into account these aspects of the economy.

Dwelling upon the impact of liberalisation and structural adjustment package on the farm sector in India in their paper, 'Ongoing Changes in Policy Environment and Farm Sector in India: Role of Agro-Climatic Regional Planning Approach', S P Kashyap and Niti Mathur (Sardar Patel Institute of Economic and Social Research) observed that policy initiatives for the farm sector appeared to be un-coordinated and ad hoc – removal of subsidies on potassium and phosphatic fertilisers, some changes towards deregulation of interest charged by rural financial institutions, and even closure of some government sponsored non-viable financial outposts in rural areas. The paper briefly examined the debate on the role of prices as an engine of agricultural growth, the relevance of non-price factors as the farm sector integrates with global threats and opportunities, and the relevance of the agro-climatic regional planning approach that was initiated in 1988 under the aegis of Planning Commission.

H G Hanumappa (ISEC, Bangalore and Asian Development Group) drawing upon the specific experience of Karnataka in his paper, 'State Policy Initiatives and Agricultural Development: A Case Study of Karnataka', concluded that the foodgrain sector needs improved research and extension services to augment productivity. On the other hand, highly efficient agro-based sunrise industries in the areas of horticulture, floriculture and the like have

shown significant progress in both production and productivity. Under this process, while the relatively more endowed will benefit by participating in the liberalisation process, the resource poor population are likely to be left behind as their ability to compete in a free market situation is extremely limited. Hence, before resorting to any major reforms in the name of liberalisation, it is necessary to provide for a safety net to the poor and the deprived.

V G Rastyannikov (IOSM), however, maintained that the distorted mechanism of resource distribution based on unreimbursable inflow of input subsidies in agriculture, that is, those items of cost which are non-responsive to the actual market determinants, have given rise to wasteful resource consumption, and correspondingly have increased the production costs. In his paper 'The Agricultural Growth in the State Regulation Policy Practices in Agriculture: Some Comments on Indian Experience', he also pointed out that, in contrast to a number of countries in east Asia, India failed to adequately respond to the challenges imposed on her by the demographic explosion. Galina Sdassiouk (Institute of Geography, Moscow) extended the discussion to the 'Problems of Regional Integration in Transitional Economy', and made clear why India and Russia could be a common subject of study so far as the question of regional integration is concerned. The trade between different regions in Russia did not consolidate the federation. Rather it promoted polarisation. Since 1985, the USSR in many ways turned back to the situation in the 19th century. This was further elaborated by Andrei Volodin (IOSM) in 'Etatism in Russia's Economic History'.

What should be the alternative trajectory of reform? Bratischev's paper attempts an answer. First, it is necessary to create an efficient system of national economy based upon a two-sector planned market economy using methods of regulation and control including modern information technologies, indicative planning, state order through tenders, and personal training and upgrading of all production sectors and management bodies. Second, public ownership of natural resources, transport and power systems, communications and defence industry should be restored. Third, new 'rules of the game' are needed – an intelligent tax policy which would be universal, multilevel, relatively simple, and stimulating production of competitive goods. Fourth, funds should be accumulated in the State Investment Bank and three semi-state banks. Fifth, a new custom policy protecting domestic manufacturers from foreign competition is necessary. Sixth, the state must have a legally secured pricing concept. Finally, the state must recover the monopoly of foreign trade. The main point is that the alternative anti-crisis measures give decent place to everyone – the state, private and joint capital, and certainly the depositors. Glaziev's paper, in the same vein, brought to prominence the dedollarisation of the economy, and incentives for effective property management. The formal transformation of property relations as a result of mass privatisation has not been backed up by any real economic responsibility mechanism so as to ensure that the economic subjects are interested in raising economic efficiency, and the long-term development of enterprises.

The next round of Indo-Russian academic exchange of views on pressing economic issues would be held hopefully, as stated in the wrap-up session by Igor Bratischev, in a 'new Soviet Russia'.

Empowerment

Andre Beteille

Empowerment through the expansion of the civil, political and social rights of citizenship is a laborious and unexciting process. Empowerment through the class struggle was a different story altogether; but that story has now been played out and it offers hardly any new prospect. There is no doubt the prospect of empowerment through caste war; but that is something that will appeal only to those who have put their minds to sleep. So in the end, the Indian way of securing empowerment for the unempowered seems to be by the safe way of providing, as extensively as possible, quotas on the basis of community, caste and gender. But can the belief that quotas, no matter how extensive, can by themselves bring about a radical or even a perceptible redistribution of power be anything more than wishful thinking?

I
Background and Context

THE idea of empowerment has taken a hold over the minds of increasing number of persons in the last few years. It is now widely employed in the press, on television, and in political, academic and even legal circles. There is talk about the empowerment of the poor, of backward communities, of women and of various other disadvantaged sections of society. Empowerment is seen by many politicians, publicists, social activists and a growing section of the intelligentsia generally as the only effective answer to oppression, exploitation, injustice and the other maladies with which our society is beset.

The idea of empowerment contains exciting possibilities. It seems somehow to fit our present Indian reality particularly well. But in its current, widespread use, the idea is new and, as with most attractive ideas that are new, it means different things to different persons, and in some cases even to the same person. It bears the risk of being put to too many uses by too many persons to serve the requirement of systematic social analysis. At the same time, when an idea comes to be used so extensively within a society, it is the obligation of the social analyst to submit it to critical scrutiny, to examine its presuppositions and implications, its scope and its limits. What I propose to do here is to make such an examination of the idea of empowerment from the sociological point of view.

The first thing to note is that there is very little guidance available in existing social theory on the idea of empowerment as it is currently used in public discussion in India. A quick check through dictionaries, encyclopedias and glossaries of popular textbooks of sociology shows that the term itself is largely absent. In the absence of well-formulated concepts, sociologists tend to use their common sense to construct such arguments about empowerment as the occasion demands. It is difficult to construct arguments in that way that will be consistent across a range of contexts. I shall avoid the usual practice, and turn instead to cognate concepts such as power, authority and legitimacy that are already established in sociological usage so as to work towards a clearer understanding of the subject.

By and large, the scholarly discussion of empowerment has been context-driven rather than theory-driven. What is the context that brings the idea of empowerment so insistently to the attention of Indians today? In a nutshell, that context is the contradiction between a hierarchical social order and a democratic political system. To be sure, the contradiction was present and perceived even at the time of independence. But at that time it was hoped and believed that the contradiction would be inevitably eased with the transfer of power from British to Indian hands. This did not happen; and the contradiction has become, if anything, more acute, more extensive and more clearly perceived.

Indian society is a notoriously hierarchical society. It is not that nothing has changed, but the change not measured up to the expectations aroused at the time of independence. The vehement style of public discussion in India tends to obscure the changes, however limited in scope and extent, that have in fact taken place in the last 100 years.

There are substantial inequalities of income and wealth and, what is more striking, vast number of persons continue to subsist below the line of poverty in both rural and urban areas. An extensive programme of land reform sought to address some of these problems in the rural areas, but the limited gains from the programme were largely eaten up by the relentless increase of population. In the urban areas as well, income is very unequally distributed. The problems are difficult if not intractable. The experience of economic growth in most parts of the world has been that, at least in the initial phases of growth, inequalities of income and wealth tend to increase rather than decrease. Intelligent policy interventions can do something to keep economic inequalities from increasing, but not a very great deal.

The most deep-rooted forms of inequality, built into the structure of traditional Indian society, are those based on caste and on gender. Though the inequalities of caste and gender both run very deep, they also cut across each other since women as well as men are members of every caste, from the lowest to the highest, and there are men in the lowest of castes just as there are women in the highest. The disabilities due to caste and due to gender were discussed and justified most elaborately in the traditional literature of the Hindus [Sivaramayya 1984], but similar disabilities were present among other religious groups as well.

The traditional disabilities due to caste and gender were social and not just economic. Deep-rooted ideas of purity and pollution governed the social standings of different castes and sexes; men and women were deemed to be of unequal moral worth as were the different 'varnas'; and the social hierarchy was underpinned by a legal order in which privileges and disabilities were carefully modulated according to caste and gender. The law has now changed; social attitudes have also changed though to a much smaller extent. Despite the changes, women and persons of inferior caste continue to suffer from many disadvantages.

India's antiquated and ponderous social hierarchy is markedly at odds with its present political system. Democracy, according to the classic formula, is government of the people, by the people, for the people. In India today, the people are to the fore in some respects; but in the things

that really matter, they seem to have very little control of their own destinies. The experience of Indian democracy in the last 50 years has brought into sharp relief a feature of modern democracies everywhere: the gap between formal political participation and effective political control. Universal adult franchise came as a revolutionary turn in the country's history [Srinivas 1992]. But with the passage of time, much of the shine has gone from the electoral process. The ordinary people of India – rich and poor, rural and urban, brahmins and harijans, Hindus, Muslims and Christians, men and women – have by now experienced many general elections. They have voted governments into power, and they have voted them out of power. Yet the ordinary person feels that his own life has hardly been enhanced as a result; and this feeling is expressed in a magnified, not to say an exaggerated, form by reporters, columnists, social scientists and other members of the intelligentsia.

Here again, a sense of proportion and balance must be maintained. It would be true to say that what universal adult franchise has achieved has fallen far short of what was expected, but false to say that it has achieved nothing. Representative government works in complex ways. Leaders who are voted into power even in free and fair elections, once in office, rarely live up to the good faith reposed in them by their electors. One set of leaders is replaced by another, but the new leaders quickly fall into the ways of the old ones. There has undoubtedly been a change in the social composition of the political class in the last 50 years, and that class has almost certainly become more accessible to the persons on whose support its members depend. But that does not mean that there has been a great increase in the powers of ordinary persons.

The Indian Constitution was written at a turning point in the country's history. It is not merely a set of rules relating to governance, but a design for a new kind of society. The older society that had prevailed for centuries and millenia was based on the principle of hierarchy; the new society envisaged in the Constitution was to be based on the principle of equality. The equality provisions in the Constitution were not confined to political equality at election time, but sought to reach into basic social and economic matters. Similarly, the concept of justice embodied in the Constitution was a wide and capacious one.

The Constitution of India took several years to write, and it is one of the lengthiest documents of its kind. But despite the great care taken in its writing, not everything has gone well with it. *Some say that the provisions of the Constitution did not go far enough, and others that too many provisions were written into it.* Some fourscore amendments have already been made to the Constitution in its life of less than 50 years, and there are pressures from various quarters to have a comprehensive review of it. All of this has been accompanied by a growing disenchantment with what can be achieved in the cause of equality and social justice through the provisions of the Constitution. Fifty years ago people expected a very great deal from the Constitution; now increasing numbers of persons seem to expect hardly anything at all from it.

The disenchantment with the plans has been, if anything, even deeper. This is in part a worldwide phenomenon, greatly reinforced in recent years by the collapse of the Soviet Union. But the trend had set in earlier, and the Planning Commission, once Nehru's favoured child, had lost much of its aura by 1977. Economic planning still has an important part to play, but it is now widely accepted that its aims have to be more modest if it is to be effective. With the passage of time, the realisation has grown that a whole social order cannot be transformed, or transformed quickly enough, merely by having regular elections, good laws and good plans. That kind of transformation calls for something else, and it is thus that public attention has come to be focused on empowerment. Party leaders and technical experts have been tried out and they have failed; the people must now get their turn, for empowerment means above all empowerment of the people.

II
Diverse Meanings of Empowerment

Empowerment is about social transformation; it is about radical social transformation; and it is about the people – ordinary, common people, rather than politicians, experts and other socially or culturally advantaged persons. Above all, it is about power, although the concept of power contained in it is generally left unspecified. Empowerment is both a means to an end and an end in itself. The term adapts itself differently situations, and its signification is both variable and fluid.

The idea of empowerment may be invoked in virtually any context: in speaking about human rights, about basic needs, about economic security, about capacity building, about skill formation or about the conditions of a dignified social existence. It is well known that our Constitution has created many rights for all members of society, irrespective of their social or economic standing. *It is equally well known that for millions of Indians those rights exist only on paper.* Creating rights is one thing, and giving security to them is quite another. Our legislators have been prodigal in creating rights but have not paid much heed to the enforceability of those rights. Empowerment is seen as a way of addressing the problem of rights that remain unenforced.

Empowerment is also invoked in the context of economic weakness and insecurity, particularly of marginalised, unorganised and other disadvantaged groups, classes and categories. It is then seen as a condition or an aspect of capacity building. Economic deprivation is widespread in our country. It is of many different kinds and has many different sources. Some of it goes back to age-old practices and institutions and some of it is the result of the ongoing economic transition. Moreover, problems of economic viability manifest themselves differently at different levels, for example, the community, the household and the individual. A community may be doing moderately bad on the whole but particular households in it may still enjoy a high standard of life; conversely, the women members of even well-to-do households may have no economic security at all.

Where one might have said in the past that women, adivasis, or even agricultural labourers were disadvantaged, one is more likely to say today that they are unempowered. This change of language betokens a change of orientation from the economic to the political. It is not that the planners and policy-makers of the early years of independence did not know that poverty and deprivation were widely prevalent or even that they were especially concentrated in certain sections of society. But they sought more or less conventional economic remedies for these problems and hoped that they could be made to work without a radical redistribution of power. They were well aware that growth and equity did not always go hand in hand [Tendulkar 1983], but they hoped that they could somehow create a balance between the two.

The focus on empowerment has given a new emphasis to the building of economic and social capabilities among individuals, classes and communities. As one would expect, interventions of various kinds are being considered and recommended. The supply of credit on easy terms, of bullocks to impoverished farmers, of goats and poultry to tribal women – these have all been viewed at one time or another as steps towards their empowerment. Capacity building through craft training, specially for women, whether for full-time or part-

time employment, is seen in a similar light. There is finally the drive towards literacy and education where much still remains to be done despite the Directive Principle of State Policy for providing universal elementary education up to the age of 14.

Implicit in the idea of empowerment is a certain theory of social change, in particular of change from a hierarchical to an egalitarian type of society [Beteille 1983], or in a slightly different language, from an aristocratic to a democratic type of it [Tocqueville, 1956]. A hierarchical or aristocratic society is based on the privileges and disabilities of groups whose unequal placement in society is widely acknowledged by its members; a democratic society is based on the recognition of the equal rights of all the individual members of it. The passage from the one type of society to the other has been a common experience in the modern age. But even where the direction of change has been broadly the same, the pace of change and the stages through which it has taken place have differed from one case to another. The radical redistribution of power has not played the same part in it in every case.

One significant path of the transition referred to above has been through the expansion of citizenship. This happened in many western countries, but most characteristically in Britain where it has received much attention from sociologists [Bulmer and Rees 1996]. There it has been shown how equality came to be gradually realised as a social value as citizenship became the main component in the status of the individual [Lockwood 1992; see also Parsons 1965]. The point, simply, is that equality is not just a question of the redistribution of power, it is also a question of a change of values. It is here that theories of social change tend to diverge, for some theorists believe that social change comes about mainly through the redistribution of power whereas others assign at least as much importance in it to the reconstitution of values.

In a classic essay on the subject, T H Marshall (1977) identified three basic elements of citizenship: civil, political and social. The civil element, according to him, as composed of the rights necessary for individual freedom; the political element consisted of the right to participate in politics through representative institutions; and the social element comprised certain basic rights to economic welfare and social security. He argued that in Britain, the 18th century saw the emergence of civil rights, the 19th of political rights and the 20th of social rights, although he was well aware that one phase generally ran into the other.

The transition outlined above has been described by many different authors in many different ways. Different components have contributed to it at different times and different places, and they have not all been stressed to the same extent by every author. Even in Britain, where the transition was relatively smooth, political mobilisation if not political revolution played some part in the evolution of citizenship. Elsewhere in Europe, it played a more prominent if not a more profound role. But even in France, where the revolution of 1789 became a landmark and a symbol, many different factors, and not just politics contributed to the unfolding of citizenship.

There is something in the development sketched out above that has the appearance of a paradox. It is undeniable that the expansion of citizenship in the 19th century was on the whole a movement towards equality, and that is how it was experienced by many of those who lived through that period. Yet the evidence seems to be clear that the very same period witnessed an increase and not a decrease of inequality in the distribution of income [Kuznets 1955]. This indeed was the main burden of the argument of T H Marshall (and in a different form of Alfred Marshall before him), that citizenship and social class develop contrapuntally in such a manner that the one places constraints on the uniform advance of the other.

Despite all that has been gained from it, the advance of citizenship has been not only discontinuous but also time-consuming. For instance, in Britain, even after more than 200 years, one can hardly claim that 'full' or 'substantive' citizenship has been secured for ordinary members of society [Lockwood 1992:260-2]. And that takes away a very great deal from its attraction, particularly in countries that are latecomers to the field and have much ground to cover before citizenship becomes properly acknowledged as a value.

Although the equal rights of individuals as citizens is central to our legal and constitutional structure, the idea of citizenship in the sense described above is relatively new to our society and polity. Within the social order, the individual was, to an unusual degree and over a very extended period of time, subordinated to the group: joint family, caste and village. The building blocks of the social order were these groups rather than individuals conceived as autonomous moral agents. The relationship between the individual and the larger society was mediated by family, caste and community, whereas it is of the essence of the modern idea of citizenship that the relationship between the citizen and the state is an unmediated one [Beteille 1998].

To many persons, and to increasing numbers of them in India, empowerment appears as an attractive alternative to the slow and tortuous path of citizenship for dismantling the old social structure and putting a new one in its place. No matter how we assess its costs and benefits, the main point behind empowerment is that it seeks to change society through a rearrangement of power. What this might entail cannot be considered without a detailed examination of the nature of power to which we turn in the following section.

III
Concepts of Power

The concept of power has been extensively, if often loosely, used in a variety of fields ranging from electrical engineering to moral philosophy. The term certainly has a wider currency, both in popular speech and in the scholarly literature, than the term 'empowerment' which, clearly, is a derivative of it.

Before turning to the discussion of power in social theory, I would like to note that there is a certain ambivalence about it in the popular mind that frequently seeps into the scholarly literature. The ambivalence of power has been forcefully brought out in the writings of the French philosopher and historian of ideas Michel Foucault whose work has had great influence in recent years [Foucault 1980]. But although they are rich, fertile and ingenious, Foucault's arguments about power remained inconclusive. They are difficult to apply to contexts outside the ones in which they emerged, and, while noting their great originality, I will refrain from trying to use those arguments in the discussion that follows.

The ambivalence with which I am concerned is nicely expressed in Lord Acton's dictum that power tends to corrupt and absolute power corrupts absolutely. There is a pervasive tendency to think of power as something evil or at least as having an evil component, so that one can say at best that it is a necessary evil. If that is admitted to be the case, how can one account for the enthusiasm for empowerment? The fact is that those who believe that power is evil may also believe that it can be redeemed by being placed in the hands of the dispossessed and the disinherited, such as workers, peasants, tribals, untouchables or women.

The sociological conception of power may be best understood by being viewed in opposition to the anarchist and the populist conceptions of it. In the anarchist conception, power itself can be abolished and human life reconstituted in such a way that the exercise of power becomes redundant. In the populist conception, the

emphasis is not so much on the abolition of power as on its radical redistribution such that all sections of society and all members of each section participate equally in its exercise. These two closely-related conceptions of power are both animated by strong moral concerns.

Moral concerns are not absent from the sociological approach to power, but they are restrained in the interest of what can be known, from observation and experience, about human societies in different places and at different times. Observation and experience have shown that power is present in all societies and indeed we can speak of it as being constitutive of human societies as we know them. They have shown, further, that in general power tends to be unequally distributed: the equal distribution of power, where it is found, represents the limiting and not the typical case, and it is unstable. These two propositions underlie all sociological conceptions of power, no matter how different they may be in other respects.

The sociological discussion of power is now a 100 years old. Two pioneers whose ideas have greatly influenced the subject were Vilfredo Pareto and Max Weber who, it may be noted, both began their academic careers as professors of political economy. I do not need to speak here about Pareto's work on income distribution which is well known among economists. But it is worth pointing out that he wrote a trenchant critique of socialist systems [Pareto 1926] in which he argued that the belief that the abolition of property would lead to equality was a delusion since the real basis of inequality was not property but power. This view is echoed by J R Hicks (1942:190) in his brief discussion of income distribution in Britain which concludes with the following observation: "Inequality of income is the form taken in our society of a more fundamental inequality – the inequality of power". (It may be noted in parentheses that while sociologists in general acknowledge the importance of the inequality of power, they do not all believe that it is the ultimate source of every form of inequality.)

More than any other scholar, it is Max Weber who has had the largest influence on the sociological study of power to which he assigned a wide significance in every major social domain. He wrote, "Now: 'classes', 'status groups' and 'parties' are phenomena of the distribution of power within a community" [Weber 1978:927]. Weber's oft-quoted definition of power is as follows: "In general, we understand by 'power' the chance of a man or number of men to realise their own will in a social action even against the resistance of others who are participating in the action" [Weber 1978:926]. This is a very capacious conception which includes coercion, domination and manipulation [Shils 1975:239-48]. The point I wish to stress is that in this conception, a relationship of power is by its nature an asymmetrical relationship since power is something that one set of persons has over others. It may of course be that, while A has power over B in one domain, B has power over A in another, so that they can be said on balance to have equal power; but, again, such a situation would be unusual rather than typical.

The conception of power referred to above – power as that which some have over others; power as coercion, domination and manipulation – corresponds to what may be called the zero-sum approach to power. Some have power to the extent that others are without it, the more power some have, the less others have of it. The power of one party can be enhanced only by reducing the power of some other party.

In other words, empowerment and disempowerment go hand in hand: the empowerment of some sections of society has to be accompanied by the disempowerment of other sections of it.

It may be said without too much exaggeration that radical and revolutionary theories of politics are as much about disempowerment as they are about empowerment. This is certainly true of the Leninist and Maoist theories which have had great influence in large parts of the world. According to them, the rise to power of the workers and peasants would be accompanied by the fall from power of the capitalist and landed classes. The theory of the class struggle has lost some of its appeal, but it has left a certain residue in the vocabulary of radical politics in many countries. Some of the radical drive of the older variety of class politics has been taken over by the politics of backwardness, many of whose proponents appear to regard the disempowerment of the upper castes or the *savarnas* as a necessary condition for the empowerment of the scheduled tribes, the scheduled castes and the other backward classes.

Not all students of the subjects subscribe to the zero-sum conception of power. An alternative conception and approach has been proposed by the sociologist Talcott Parsons (1963). He argued that power may be viewed not simply as what some have over others, but as a resource of the community as a whole which it may use more or less effectively in the attainment of its goals. If we take a long-term view of human endeavour and achievement, then it may appear that societies have in fact expanded their capacity to act effectively in the pursuit of larger objectives. Power, in this conception, is compared to wealth, and just as the wealth of a nation may be augmented over time, so may also be its power. It is certainly conceivable that every increase in the power of some may not require a corresponding diminution in the power of others. But however, persuasive the analogy between the two may be, it has very serious limitations since power cannot be measured in the same way as wealth.

There are two further points to be made here. Even if we admit that the power of a community as a whole need not remain at the same level but may increase over time, it does not follow that the increase can be brought about according to the will and pleasure of individuals under any condition whatever. There are definite social conditions that have to be met for the increase to be possible and effective. Parsons himself would assign great importance to the simultaneous expansion of the rights of citizenship and the capacities of institutions.

The second point to be noted is that a positive-sum approach to power does not in any way entail the belief that the distribution of power can or should be made equal. Here again the analogy with wealth is useful. Changes in the wealth of a nation and in its pattern of distribution are two different things. There is no ground for believing that the equal distribution of wealth can be ensured by increasing – or decreasing – its wealth as a whole. Even if it is possible to increase a nation's capacity to attain its own goals and to say that there has been an overall increase in its power in that sense, it does not follow that that power will come to be more equally distributed.

IV
Power and Authority

I would like to return briefly to the ambivalence surrounding the idea of power. As will be evident from the preceding discussion, power is viewed as a source of corruption and evil; but it is also viewed as a prime mover in a nation's progress and advancement. This double nature of power is perhaps most acutely felt in modern democratic societies where government and opposition speak in radically different voices but are seen, when the turn comes for exercising power, to be acting in remarkably similar ways. It is this that gives to the idea of empowerment its peculiar fascination. For the hope remains that power, which is a source of so much evil, can be made into a source of everything that is good by being transferred from the wrong to the right hands, from the capitalists to the workers, from the landlords to the peasants, from the upper to the lower castes, and, now, from men to women.

As we have noted already, power may be exercised in a variety of forms, such as coercion, domination and manipulation. Here I shall be concerned not so much with the contrast between the evil and the good aspects of power as with that between untamed power and power that has been tamed or institutionalised. Central to the entire subject of political sociology is the distinction, that we owe principally to Max Weber, between power and authority, or between power and legitimate domination. Important though the distinction is, it has proved to be one of the most difficult distinctions to apply consistently in political analysis. But once we admit the value of the distinction, we cannot escape the question as to what the project of empowerment will entail not just for the distribution of power as such but, more specifically, for structures of authority in the major institutions of society.

At the heart of Weber's distinction lies the idea of legitimacy. The difficulty here is that while Weber has discussed in some detail the principal types of legitimacy and even the principal sources of it, there is no clear or consistent definition in his writing of legitimacy itself. 'Traditional', 'rational-legal' and 'charismatic' domination are ideal types of domination; they are not average types; they refer to differences in kinds of legitimacy, not degrees of it. It is difficult in the nature of the case to provide a test for determining whether a given system of domination is or is not legitimate, or to what degree it is legitimate. The most that we seem to be able to say is that a system is legitimate because it is accepted as legitimate; as to whether it should or even will continue to enjoy its legitimacy, nothing very much can really be said.

Coercion and manipulation as forms of power are no doubt important features of the real world. But no political order can be sustained for long unless it is acknowledged, more or less widely and more or less actively, as being right, proper and desirable. Broadly speaking, this is as true of monarchies and aristocracies as it is of republics and democracies. Political regimes have come up from time to time that have sought to maintain themselves mainly through coercion and manipulation, but they have not been stable. The concept of legitimacy draws attention to the fact that the stability of a regime requires that the exercise of power be sustained by the values commonly held by the members of society. The stability of a regime is affected not only by conflicts of interests, but also by conflicts of values.

It will be generally agreed that all political regimes enjoy some legitimacy. But there is much variation in the degrees and types of legitimacy. For those viewing a political regime from within, the first question is of the degree of legitimacy it enjoys. As we have seen, every system enjoys dome degree of legitimacy, because otherwise it would not last; and it is hard to imagine a system that enjoys full and complete legitimacy, because such a system would never change. Beyond this, it is very difficult to make exact comparisons between systems in terms of their degrees of legitimacy. Nevertheless, the discussion of the ideal types of legitimate domination has been very fruitful since it has brought out the connections between the organisation of authority and the system of values by which type of organisation is characteristically sustained.

As we have seen, domination as a form of power has to be distinguished from both coercion and manipulation. Weber saw quite clearly that the forms of domination are themselves almost infinitely variable. He dwelt especially on two of them, and on their contrasting natures. They are, in his own words, "domination by virtue of a constellation of interests (in particular: by virtue of a position of monopoly), and domination by virtue of authority, i e, power to command and duty to obey" [Weber 1978:943]. We may, for short, refer to the first as 'economic domination' and to the second as 'legitimate authority'.

Economic dominance has a general and pervasive significance in society. It is not illegitimate in the sense that coercion mostly is from the legal point of view and manipulation from the moral point of view; at the same time, it does not enjoy quite the same kind of legitimacy as the exercise of institutional authority does. It is undeniable that the manufacturer, the moneylender and the landowner are generally able to impose their will on the job-seeker, the credit-seeker and the land-seeker. Their power is different from that of the gangster or the schemer; nevertheless, it is not quite the same as that of the official, elected or appointed according to established procedures.

A great deal of the argument for empowerment is addressed to the issue of economic domination that is neither patently illegitimate (like brute force) nor clearly legitimate (like the authority of the public official). Shifts in the balance of economic power between classes, between communities, and between men and women have been taking place throughout the world in the last 100 years. These shifts operate in many different ways, both visible and invisible, but they rarely if ever lead to the empowerment or disempowerment of any major class or section of society as a whole.

The simple definition of authority as power backed – or restrained – by legitimacy is in need of some elaboration. What is at issue here is not simply legitimacy but also a regular and continuos chain of command and obedience. The two aspects are analytically distinct, but they are functionally related. Where power flows openly and continuously along pre-existing channels, its legitimacy comes to be generally acknowledged; and it is unlikely to be acknowledged as legitimate if its flow is sporadic, irregular and concealed. Economic power acts in a different way from legitimate authority. No matter how much power the moneylender has over credit-seekers, his power is not sustained by a continuous chain of command and obedience.

The exercise of legitimate authority, as against many other forms of power not all of which are illegitimate, takes place in conformity with acknowledged rules. The legitimacy of authority is in large part the legitimacy ot the rules in conformity with which it has to be exercised. These rules provided at best a broad framework within which the exercise of authority must be confined. They cannot predetermine the correct course of action for a given authority in anticipation of every possible situation. Were that to be the case, the authority concerned would act simply as an automation without any power to decide between alternative courses of action.

The capacity to decide between alternative courses of action is vested in some social positions and not in others, or more in some than in other positions. We may speak of the power associated with such positions, or, when they operate within an acknowledged framework of rules, of the authority vested in them. What I wish to stress here is that although the exercise of authority is in many ways different from the exercise of other forms of power, it is nevertheless at bottom a form of power. It is for this reason that we cannot speak of empowerment without taking into account the structures of authority in a society.

If the exercise of authority is associated with continuous chains of command and obedience, it is seen most clearly in the various types of associations that are a feature of every type of society except, perhaps, the most primitive bands of food gatherers. Here I use the term 'association' in a very broad sense to include every kind of institution and organisation with a corporate identity that is recognised by both members and non-members. Examples of these would be schools, colleges, universities, hospitals, the Reserve Bank of India, the National Physical Laboratory, the Times of India and many others. Each is a field for the exercise of authority which is distributed in a more or less determinate way among its members according to the positions they occupy in it.

A school as an institution has a certain corporate identity and a certain division of labour. Its activities are co-ordinated in various ways among which the exercise of authority by some over others is a significant one. When the institution functions effectively, the authority does not have to be exercised with a heavy hand. But no institution in the real world functions smoothly enough for it to be able to dispense with the exercise of authority by some over others; not even communes and 'ashrams' are exceptions to this rule. Most persons would acknowledge that masters have to be given some authority over pupils and the headmaster over the other masters if a school is to attain its goals. But even this may be challenged, as was done on a large scale during the great cultural revolution in China and sporadically during the naxalite movement in India.

A bank is a very different kind of institution from a school. Its internal division of labour is a division of labour among adults. It is a part of this division of labour that authority is unequally distributed so that some can take decisions that will be binding on the others. A bank would hardly be able to serve its customers if nobody had the authority to take such decisions or if that authority were randomly distributed among its employees. I have been the victim of a local branch of a nationalised bank where such is sometimes the situation. But I doubt that even the most radical proponents of power-sharing will ordinarily recommend that the State Bank of India be run on anarchistic principles.

I can multiply examples from many different domains, but that will not be necessary. I have said enough to show that a certain amount of imperative co-ordination, i e, co-ordination through the exercise of legitimate authority is essential to the proper functioning of virtually every kind of institution, organisation and association. The generic term proposed for these is 'imperatively co-ordinated association' which is a somewhat clumsy English translation of the term 'Herrschaftsverband' used by Max Weber [Dahrendorf 1959:167]. Their significance has been viewed differently by different persons. Some have regarded them as obstacles to the empowerment of the people, whereas others would maintain that it is through their differentiation and expansion that the reservoir of power at the disposal of the nation as a whole and its individual citizens is augmented.

V

Redistribution of Power and Social Rearrangement

The distribution of power is not a separate or detachable part of society but permeates every type or arrangement in it. Any major alteration in the distribution of power is bound to have both direct and indirect, foreseeable and unforeseeable, consequences running through society as a whole.

Society may be likened to a mosaic of many different components. Even that would be too simple an analogy, for the components differ widely in form and dimension; they are interpenetrating rather than mutually exclusive; and they continually change their aspect.

A large and complex society such as ours cannot be thought to be made up simply of individuals (or citizens) at one extreme and the nation (or the state) at the other. When we think of the redistribution of power, of empowerment and disempowerment, we cannot think only of India and 950 million Indians. We must think also of everything that stands in between – the varieties of communities, classes and categories; of associations, organisations and institutions; and of the many networks of relations that link the individual members of society to each other and to society as a whole. Because, changes in the distribution of power affect all of these in one way or another.

Our society is divided, first of all, into classes and communities, and their economic and political significance is widely recognised. An Indian is not simply an Indian; he is a peasant, a worker, a manufacturer, a trader or a moneylender. As such, he is linked to others of his own class and of other classes through a variety of ties. These ties are of great significance not only to his membership of his own class but also to his identity as an Indian. By far the most persuasive theories of empowerment and disempowerment in the last 100 years have taken their point of departure in the division of society into classes. Changes in the balance of power between classes have taken place throughout those years, but those changes have been very different from what had been anticipated by those who maintained that a revolutionary transformation of society would be the inevitable outcome of the class struggle. Class divisions are important; but other divisions are sometimes even more important.

Distinct from class are identities of community based on language, religion, sect, caste and tribe. Language is not just a vehicle of thought and speech, it is also a basis of social identity. It unites those who are of the same tongue and at the same time divides those who are of different tongues. The same is the case with religion; socially and politically, it unites as well as divides members of the same nation. Then, of course, there is caste which was the basis of the social hierarchy in the past. While it has lost many of its religious functions, it has acquired new political functions; it is very much in the forefront of the discourse on empowerment today.

Where the politics of identity is concerned, language, religion, sect and tribe act in ways similar to that of caste. Indeed, the same term 'jat' or 'jati' is used for all of them in many parts of the country in the context of social and political identity [Beteille 1996a]. Today, the politics of backwardness has spread from castes to communities of other kinds. It is not simply the backward castes – the yadavas, the kurmis, the kolis and the many others – who want more power for themselves, but also the religious and linguistic minorities. Each community looks at itself and finds that it is disadvantaged in some way, and its leaders stake a claim for more power on its behalf; in this way, its social identity is reinforced and at the same time its bargaining power is enhanced.

Different from the identities of class and community are those based on gender. The division between men and women is the most general if not the most fundamental of all social divisions, and it is found in all societies from the simplest to the most complex, from the most backward to the most advanced. While the divisions of class and community cut across each other to a greater or lesser extent, those of gender necessarily cut across the divisions of both caste and class since men as well as women are to be found in every class and every community. While it may be said, with some degree of plausibility, that there is in fact a great deal of overlap at the bottom of the ladder between the economically disadvantaged classes and the socially backward castes, it cannot be said at all that there is a similar overlap between women as the more disadvantaged sex and either the lowest classes or the lowest castes.

Class, community and gender are important components of the social mosaic; but they are not its only components. There are, in addition, a multitude of institutions performing a variety of specialised functions in administration, finance, education, research, communication, and so on. These institutions - the secretariat, the bank, the school, the laboratory and the newspaper – also serve to link individuals to each other and to the wider society. They have a very different place in society from the place occupied by caste, community and gender; they function in a different way.

Institutions performing specialised functions have grown enormously in our country in the last 100 years. Not all of them are working well or are in a state of good health. Many of them are manifestly corrupt, inefficient and inflexible. There is intermittent talk that these institutions are foreign implants of Indian soil, that they are 'elitist' in character, they are doomed to be ineffective, and that they should be replaced by alternatives more in tune with the traditions and the aspirations of the Indian people. But such talk is really without issue. The growth of functionally specialised institutions and their differentiation is an inescapable part of the modernisation process, and we cannot opt out of the modern world any more than we can jump out of our own skins.

While I am inclined to stress the increasing importance in our society of open and secular institutions [Beteille 1996b], the contemporary discussion of empowerment tends to overlook the requirements of these institutions and, sometimes, their very existence. The object of attention in such discussion is either the people as a whole – the 'people' as against the 'elite' or the 'establishment' – or particular classes, communities and sections of society considered as unempowered, such as peasants, workers, backward castes, religious minorities and women. The question is never addressed in any detail as to whether, and to what extent, the empowerment of peasants, workers, backward castes, religious minorities and women will affect the functioning of the institutions on which the well-being of society as a whole depends.

The most radical theories of empowerment are those that call for the empowerment of the people as a whole. These are populist theories and they are mistrustful of institutions as such, because they see them as obstacles to the aspirations of ordinary people – peasants, workers, students, dalits, women – to secure control over their own lives. They ignore or reject the distinction that social theories have been at pains to make between naked power and legitimate authority. They believe that the well-being of institutions is best secured by having full and equal participation by all in the conduct of their affairs. for the historically-minded, the model of such institutions is the Paris Commune of 1871, once greatly admired by Marx.

Beyond this, a great deal of the argument for empowerment relates to particular components of the social whole. But the principal, if not the sole candidates for empowerment, are classes, communities and sections of society rather than its major institutions. After all, one might call for more powers to be granted not simply to peasants, workers, backward castes or women, but also to universities, research laboratories, banks and other autonomous or semi-autonomous institutions. But that is not done or done very rarely in the name of empowerment.

It is of course tacitly acknowledged that the empowerment of disadvantaged classes, communities and sections will affect at least indirectly the major institutions of society. But what the advocates of empowerment seek to alter here is above all the social

composition of these institutions and not necessarily their mode of functioning; and their attention rests mainly on those institutions that are believed to be the major repositories of power in society.

VI
Empowerment and Distributive Shares

As one would expect, many of the proposals for empowerment are very broad and general, but others are quite specific and concrete. Among the latter are those that seek to bring about empowerment through a radical change in the social composition of the strategic institutions of society, in particular the various organs of the state. This approach to empowerment has in the last few years evoked much public discussion in India, and, in this concluding section, I will consider briefly its scope and limits, and its implications for the distribution of power and authority, the functioning of institutions and the general well-being of society.

In all traditional hierarchical societies, access to positions of authority in the public domain were restricted largely to men, and among men, to those born into particular families, castes or estates. Appointments to public office went more according to birth rather than according to the principle of careers open to talent. Men of exceptional ability might of course rise to positions of authority, but the opportunities available to them were limited, particularly in India. Democracy ushered in a new principle that made public office open to all irrespective of birth. With this the social composition of public institutions began to change in Europe and America, but very slowly at first. In Europe, even now women occupy far fewer positions of authority than men, and in the US, Blacks and Hispanics fewer than Whites. Achievement replaced ascription as the basic principle, but practice has lagged far behind principle.

When India became independent 50 years ago and adopted a republican constitution, the presence of men belonging to the higher Hindu castes was even more conspicuous in all strategic public institutions. There have been some changes in the last 50 years, but many believe that those changes have not gone far enough. They feel that there should be both men and women, and men and women from all castes and communities in those institutions for democracy to be real and effective.

assuming office that he wanted to have a cabinet that would look like America. That was not meant to be taken literally, but it did make a point. Many would like to see greater social diversity in the membership of our key public institutions than is at present found. But the diversity can be more easily accommodated in some public institutions than in others. As we have seen, the population of India is divided into a number of social classes, differing widely in income, occupation and education. These divisions are by no means unimportant; but members from all the different classes can be accommodated more easily, let us say, in the Lok Sabha than in the Supreme Court or even in the higher civil service.

It does appear odious in a democracy when the organs of public authority are all in the hands of men from a particular social background. A cabinet, a Supreme Court and a higher civil service which has women as well as men, and men and women from all castes and communities is likely to be more open and more sensitive in its approach to the larger problems of society than one whose members are all of the same background. But beyond that it is not

easy to say very much. For one can hardly say that a mere change in the social composition of an organ of authority will bring about a definite change either in the concentration of authority or in its mode of exercise. The experience of the Soviet Union does not show that when more peasants and workers secured positions in the organs of authority, those organs exercised their authority with a lighter touch. What in fact resulted was greater concentration rather than greater dispersal of authority.

Most persons now realise that in our kind of system it is not possible to give equal representation in public institutions to the various classes in society. But what cannot be done for class can in fact be done for caste. It is said, somewhat misleadingly in my view, that caste is the form taken in Indian society by class. Be that as it may, caste has this advantage over class that while it is not possible to find prsons who have the minimum qualifications for the office of judge or civil servant in the class of unskilled manual workers or of agricultural labourers, it should be possible, at least in principle, to find such persons among even the lowest of castes. The rest can be done by a comprehensive system of quotas. In this way, the burden of empowerment comes to be placed on the system of quotas; it is a very heavy burden for such a system to bear.

Whatever may be the benefits to be gained from a comprehensive system of quotas, it cannot be argued that such a system will have no social costs whatsoever. The Constituent Assembly in fact took an ambivalent attitude towards numerical quotas, admitting the need for them, but only in very special cases and for a limited period of time. After all, it had adopted strong provisions for equal opportunities for all, and creating additional provisions for special opportunities for some was bound to put strains on the former. Ambedkar himself, while advocating special provisions for the specially disadvantaged, had argued that those provisions should not be made so extensive as to eat up the general provision of equality of opportunity for all.

It was hoped at the time of independence that the special provisions would not be needed for very long and that they would gradually be pared down as the country advanced economically and politically. What has happened is the opposite. There has been some economic and political advance no doubt; but the pressure for more comprehensive quotas in the interest of equality and social justice has grown relentlessly. An initial move in the 1950s to have quotas in employment for the OBC in addition to those for the SCs and STs was aborted; but what was aborted in the 50s came to be adopted in the 90s. The committee on the status of women had in the 70s recommended against the adoption of quotas for women in parliament and in the state assemblies; but there is now the Women's Reservation Bill waiting to be made into law.

The distribution of benefits and burdens according to community, caste and gender is fundamentally at odds with the idea of citizenship on which our Constitution rests. The rights of citizenship are rights vested in individuals irrespective of race, caste, creed, sex or place of birth. It is one thing to acknowledge that benefits and burdens are in fact distributed unequally among castes and communities and between men and women. It is quite another to give legal and moral support to policies that assign precedence in the name of social justice to community, caste and gender over the individual as citizen. Special provisions may no doubt be made for the benefit of severely stigmatised or marginalised groups; but they should be restricted and not pervasive, and their costs to individuals as citizens should not be ignored.

I have earlier referred to the part played by the enlargement of the rights and capacities of citizenship in the transformation of society in the west. Many have argued that it was citizenship that acted as the main force for equality by moderating the inequalities of class (and of gender). When India adopted a new Constitution soon after independence, many had hoped that here too citizenship would be the engine of progress. But they now seem to be shifting their attention from citizenship to quotas based on community, caste and gender as the main force for social transformation. These are two different paths to the future, and it is doubtful that we can continue for long to move along both these paths at the same time.

Empowerment through the expansion of the civic, political and social rights of citizenship is a laborious and unexciting process; it is, in Max Weber's famous phrase, "a slow boring of hard boards". Empowerment through the class struggle was a different story altogether; but that story has now been played out and it offers hardly any new prospect. There is no doubt the prospect of empowerment through caste war; but that is something that will appeal only to those who have put their minds to sleep. So in the end, the Indian way of securing empowerment for the unempowered seems to be by the safe way of providing, as extensively as possible, quotas on the basis of community, caste and gender.

If what I have said above holds true, quotas, no matter how extensive, can at best touch only the upper fringes of the redistribution of power in a society as large and complex as ours. The belief that they can by themselves bring about a radical or even a perceptible redistribution of power is no more than wishful thinking. Such wishful thinking is not without its cost. The cost will be to the Constitution of India which assigns rights and capacities to citizens as individuals, and not to castes and communities or to men and women separately.

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Brave New World of Global Commerce

Aditya Bhattacharjea

Developing Countries and the Multilateral Trading System: From the GATT to the Uruguay Round and the Future by T N Srinivasan; Oxford University Press, Delhi, 1998; pp 140, Rs 395.

THIS slim and readable monograph covers a lot of ground. Within its 125 pages of text, the author surveys the history of the GATT from its origins after the second world war to the signing of the Final Act resulting from the Uruguay Round Agreements (URA) in 1994; critically assesses the likely impact of the URA, and also possible future developments in the areas of environmental and labour standards and regional trade agreements; and offers agendas for complementary domestic policies and co-operation amongst multilateral economic institutions. A lengthy postscript brings the story and the assessments up to early 1997.

It might be useful to begin by spelling out what this book is not. It is not a work of original research: Srinivasan draws extensively from earlier work on the subject, including his own, but repackages it for a wider audience, although familiarity with basic trade theory is assumed. Nor does this book, which originated in a paper commissioned by the Economic Development Institute of the World Bank, pay much attention to the Indian economy. There are stray references to the Indian position in the various rounds of negotiations in the historical chapters, and – by way of illustration – to the country's involvement in recent trade and investment disputes. The focus is on developing countries in general: their involvement (or lack of it) in the evolution of the GATT, how the multilateral agreements have affected them, and what they should do in future negotiations as well as in their domestic policy formulation. There is an implicit agenda for India in these prescriptions, but the author could have added another postscript to this edition specifically for an Indian readership.

Although developing countries comprised a majority of the GATT contracting parties from the very beginning, they were suspicious of the developed countries' designs and did not participate effectively in successive negotiating rounds until the Tokyo Round. Before Uruguay, their main concern was to secure 'differential and more favourable treatment', whereby they were not required to reciprocate the developed countries' tariff reductions and instead obtained trade preferences from them, and also retained their right to impose quantitative restrictions on trade. According to Srinivasan, this attitude was (mis)guided by ideological concerns and proved doubly self-destructive for the developing countries: it permitted them to continue with costly import-substitution strategies, and also allowed developed countries to get away with GATT-inconsistent import restrictions (e g, on textiles) as well as higher tariffs on products of export interest to developing countries. Fuller engagement, he believes, would have secured them a better deal in developed-country markets in exchange for opening up their own, which would have been in their own interest in any case.

To anyone familiar with Srinivasan's writings, his support for trade liberalisation will come as no surprise. It survives despite his survey of various quantitative assessments of the gains from the URA, which shows them to be, in his own words, "extremely modest", with most developing countries gaining less than 2 per cent of GDP, and sub-Saharan Africa actually losing. He tries to put a gloss on these findings with a bizarre comparison: "even a gain of, for example, 0.7 per cent of GDP...for the world [as shown by one study] compares favourably with the as yet unachieved and unlikely to ever be achieved target for external assistance of 0.7 per cent of GDP for developed countries"! Even these modest estimates are based on the URA not being undone by resource to anti-dumping and other measures, about which Srinivasan himself expresses concern at various points in the book. He is under no illusion about the political economy of protection in developed countries, and their ability to exercise unequal power in a nominally rule-governed system. His postscript in particular points to various disquieting post-1994 developments, in particular the increasing use of anti-dumping duties by both developed and developing countries (which has in fact accelerated since his manuscript was completed in 1997), and also statements periodically emanating from the US, affirming its right to act unilaterally and to ignore the rulings of the WTO's Dispute Settlements Bodies.

Although he is careful to nuance his optimistic assessment of the URA with such warnings, Srinivasan's summary of specific market-access concessions leaves out some of the clever devices that have been used to dilute their effectiveness. For example, by 1998 developed countries should have abolished quotas on a third of their imports of textiles and clothing in the first two stages of the four-stage phase-out of the multi-fibre arrangement (MFA). Srinivasan mentions that only one quota was actually abolished in the first stage (1995), but not the stratagem that was used, which has enabled almost all quotas to survive even after the second stage (1998). This was the simple expedient of including in the one-third requirement products that were not under quota restriction to begin with. Similarly, he does not mention the considerable body of research which shows how evidence in anti-dumping cases is often slanted against exporters, and how petitions are often filed, not necessarily in order to obtain anti-dumping duties, but to threaten exporters with long and costly legal battles in Washington, Brussels and Geneva. The best that can be said about the URA is that, despite fraying at the edges in this manner, they have not unravelled entirely as country after country has slid into recession and balance of payments crisis in the last two years. There has not been a repeat of the tariff wars of the 1930s, although this is largely due to the 'hegemonic stability' provided by the robust health of the American economy rather than universal acceptance of a rule-governed international order.

On other issues, too, Srinivasan presents a mixed picture but remains sanguine. He acknowledges that stronger patent protection as a result of the TRIPS agreement will transfer rents on technology from developing to developed countries, but opines that this is likely to be offset by

more rapid accumulation of "knowledge capital", since "with spillover effects, knowledge created anywhere has potentially beneficial effects everywhere". In services, agreements on telecommunications and information technology products were concluded just in time to be welcomed in his postscript, although he notes that developed countries have been much less enthusiastic about opening up trade in the more labour-intensive services in which developing countries have an advantage. Even as they resist free movement of unskilled labour, developed countries are keen to obtain a multilateral agreement that would facilitate free movement of capital. Although Srinivasan takes seriously the apprehension that foreign investment can compromise national sovereignty, and that multinational firms can engage in restrictive business practices, he remains generally in favour of direct foreign investment and against TRIMS such as local-content and export obligations.

In a chapter based on his own recent work with Jagdish Bhagwati, Srinivasan eloquently attacks developed countries' efforts to use environmental and labour standards to justify protectionist measures. He argues for allowing a diversity of standards consistent with different levels of development. Environmental concerns can be met most efficiently by Pigouvian taxes on economic activities that have a purely domestic environmental impact, or the economist's favourite device of marketable pollution permits for activities that have transborder effects, not by restricting trade. Again, rich nations' putative concern for workers in developing countries should be translated into action by direct income transfers or by permitting free immigration, not trade restrictions to offset 'unfair' competition from countries with lower labour standards. All this echoes the old Bhagwati-Srinivasan literature on directly targeted 'first-best' policies. There are obviously more intractable practical and political problems involved here, but since Srinivasan remains acutely aware of the protectionist agenda behind the noble-sounding demands for labour standards, and (as noted above) the improbability of meeting even existing targets for external assistance, his prescriptions are presumably rhetorical debating points. Also, he somewhat casually dismisses fears that the absence of internationally enforced environmental and labour standards will promote a dangerous "race to the bottom" amongst countries trying to maintain competitiveness and attract footloose foreign capital. He indicates that he has spelt out the grounds for such dismissal in research published elsewhere, but this book could have been more forthcoming on such an important issue.

Overall, despite sketching a chiaroscuro portrait of the post-URA world trading system, Srinivasan remains an ardent advocate of trade liberalisation by developing countries. He is sceptical about preferential trade agreements as a halfway measure, because they entail complicated rules of origin and the possibility of trade diversion (here, as elsewhere, the reader's familiarity with the relevant theoretical framework is assumed). Instead, recognising that individual developing countries may find it difficult to go it alone in taking the medicine he prescribes, he suggests co-ordinated but non-discriminatory liberalisation by regional groups of countries. But this begs question: why should jumping into the deep end holding hands be more politically feasible than jumping unilaterally?

Distributional Issues Ignored

I would like to devote the rest of this review to some of the book's inconsistencies and silences on the wider consequences of liberalisation. The analytical approach on which Srinivasan has built his reputation invokes lump sum taxes and transfers to enable considerations of allocative efficiency to be divorced from income distribution. In this volume, however, he displays a certain inconsistency. For example, as indicated earlier, he attacks the case for labour standards by calling for developed countries to make income transfers to workers in developing countries. But in arguing his case against customs unions, he dismisses (on grounds of lack of information and incentive-compatibility problems) the feasibility of the international transfers that are needed to establish theoretically that a customs union is always globally Pareto-optimal. When it comes to domestic income redistribution, which is equally necessary to establish the Pareto-optimality of free trade for a single country, he is silent. Again, he is concerned that the costs of protecting the environment be shared equitably between countries, but not that the costs of trade liberalisation be shared equitably within countries

The book does cite a rueful statement by a former managing director of the World Bank to the effect that the Bank "under-estimated the political difficulty of adjustment [and] the fact that structural adjustment means a major redistribution of economic power and hence of political power". But in Srinivasan's view, it is the owners of capital, bureaucrats and politicians who lose from liberalisation in developing countries and therefore constitute the political opposition, while workers gain. There is no scope for workers (apart from a small labour aristocracy) to suffer income losses and unemployment in this Stolper-Samuelson fable, because a flexible labour market is assumed to reallocate displaced labour to expanding, labour-intensive, export sectors. Indeed, in the chapter on complementary domestic policies, Srinivasan highlights the need for reforming labour and bankruptcy laws to facilitate labour retrenchment and industrial closures. But this benign view of structural adjustment is not "a fable agreed upon".

Prescribing liberalisation even-handedly for all countries, the book ignores the welfare measures that were put in place even as developed countries were opening up to each other in the early rounds of GATT negotiations, or in the process of European integration. Unemployment benefits, child support, social security, public education and (except in the US) national health insurance ensured that basic needs were fulfilled independently of earnings. Vulnerable low income sectors such as agriculture and textiles were excluded from GATT disciplines for decades; even as they are being gradually integrated after the URA, developed countries have been able to cushion the impact by massive transfers to farmers and (in the EU) to depressed regions. Further, even low income consumers in developed countries obtain gains from trade in the form of cheaper imports (of food, clothing and footwear, for example), which is unlikely to be the case when imports are liberalised in poor countries. (Standard theory evades this issue by assuming homothetic preferences, so that all consumers consume all goods in the same proportion and therefore benefit from cheaper imports.)

Even amongst developing countries, the east Asian miracle is hailed in this book for its 'outward oriented' (which does not always mean 'liberalised') trade strategy, but not for policies such as land reforms in China, Korea and Taiwan, public housing in Singapore and Hong Kong and affirmative action in Malaysia. The absence

of such interventions in Indonesia and Thailand made them exceptions to the pattern of egalitarian growth that constituted the real east Asian 'miracle', but even they shared the other miracle economies' early commitment to providing basic education, and already had far higher literacy and teacher/pupil ratios in the early 1970s than India has today. To harp on this is not merely to call for putting a human face on liberalisation; the importance of such measures for productivity-enhancing human capital accumulation is part of the discourse of mainstream economics. Without them, trade liberalisation in developing countries is likely to result in "Modest benefits, but problems with productivity growth, macro prices, and income distribution", to quote the title of a recent paper by Ocampo and Taylor (*Economic Journal*, September 1998) which summarises the evidence. It is not as though Srinivasan confines himself to international economics or espouses laissez-faire in this book. His chapter on domestic institutional innovations and reforms calls for regulation of banks and financial markets to accompany financial sector liberalisation, monopoly regulation to accompany privatisation, and control of restrictive business practices to accompany liberalisation of foreign direct investment. By contrast, his silence on distributional and human capital issues is almost deafening.

In support of his case for free labour migration and against the developed countries' stance on labour standards, Srinivasan at one point quotes John Rawls' endorsement of freedom of movement as an essential primary good. But Rawlsian criteria, if consistently applied, would surely call into question the social consequences of indiscriminate liberalisation. And while one can applaud Srinivasan's repudiation of labour standards imposed by developed countries, it would be unfortunate if the countries of south Asia and sub-Saharan Africa, in pursuit of flexibility and international competitiveness, were to relax their own low standards regarding gender equality, occupational health and safety, child labour and primary education. They would then be competing, not for global market shares and foreign investment, but in a 'race to the bottom' of the world table in terms of human development indicators.

Tibet under Communist Rule

Dawa Norbu

The Dragon in the Land of Snows: A History of Modern Tibet since 1947 by T sering Shakya; Pimlico, London, 1999; distributed by Rupa and Company, Rs 395.

WHEN Melvyn Goldstein published his widely-acclaimed *A History of Modern Tibet, 1913-1951* in 1989, T sering Shakya was quite young but still very excited and inspired by that publication event. He at once started working on a sequel to Goldstein's path-breaking book. The result is this massive (574 pages) and impressive volume under review. Goldstein's study covers the period from 1913 to 1951, and Shakya's from 1947 to 1998, and the latter is a worthy sequel to the former by almost any standard. I believe these two volumes constitute the most serious and comprehensive academic contributions to the history of modern Tibet, covering the modern period, as they do, from 1913 to 1998, using primary sources to the extent possible.

Between these two monumental works, there has been a plethora of popular books on Tibet responding largely to international market demands. Of these Tom Grunfeld's *The Making of Modern Tibet* is the most well known. However, since Grunfeld knows neither Chinese nor Tibetan, his information on the making of modern Tibet is essentially limited to secondary sources. Moreover he seems to harbour a hidden ideological agenda as evident throughout the text on essential points. His academic sophistication hides his subtle tilt towards Chinese Communist essence on the history of modern Tibet, and this makes the book acceptable to a lot of readers.

By contrast, T sering Shakya's *The Dragon in the Land of Snows* is the most balanced and the best informed historical account of Tibet under Communist domination we have had so far. It is a difficult feat in which the author has succeeded. The Communist period he covers is extremely controversial; yet he has succeeded in maintaining his balance and historical objectivity. Above all no other book o contemporary Tibet has exhausted all th existing and diverse sources of informa tion and available data as this volume ha done. Therefore, its empirical base is soli and sound.

Drawing on a wealth of archival and ora sources, T sering Shakya reveals for th first time the full story of the Dalai Lama' escape from Tibet in 1950. He provide the first complete account of CIA involve ment in Tibet; of how the British govern ment misled the United Nations; of th internal power struggles during the Cul tural Revolution; of the previously secre uprisings against the Chinese; of negotia tions between the Dalai Lama and th Chinese government; and of the changin phases of the Communist policy and prac tice in Tibet during the last 39 years. Hi historical details are rich and treatment o the subject professional.

On the whole, the best part of the boo is the early chapters (2-6), where most o the prerequisites for sound historical re search are present, namely, various archi val records and time perspective. How ever, as we near the more recent event covered by chapters 13 to 15, the descrip tions become thin because sources narrow down to one or two, and the historian i too close to the events. This, however, i a general problem in the writing of curren history which is a typically America concept. No current history can be defini tive not only because the subject matte is still in a process of formation an contestation but also because the historia is too close to the events he describes o seeks to analyse so that the critical dis tance and long 'duree' perspective s essential for any sound historical researc become problematic. This is a proble almost every modern historian faces an T sering Shakya is no exception. Never theless, one is grateful to T sering Wangd Shakya for his important and substantia contribution to the study of 20th centur Tibetan history. It will remain a standar work on post-1950 Tibet for a long tim to come.

Globalisation and Threat to Seed Security

Case of Transgenic Cotton Trials in India

Vandana Shiva
Ashok Emani
Afsar H Jafri

There are high social and ecological costs linked to globalisation of non-sustainable agriculture which have been experienced in all commercially-grown and chemically-farmed crops in all regions. While the benefits of globalisation go to the seeds and chemical corporations through expanding markets, the cost and risks are exclusively born by the small farmers and landless peasants. While the commercial private seed supply system needs strong state regulation, farmer seed supply should function free of state interference with strong community control and public participation. Strong biosafety regulation with public participation is both a democratic and an ecological imperative.

The use of cotton as a source of textile extends far into the past, thousands of years before the birth of Christ. Documentation establishes that the cotton fibre was being produced in the Indus Valley around 3000 BC. India later became the first important exporter of the finished products. Grithasamad, a vedic rishi, survived some 20,000 years ago in a village called Kalambh in the present Yavatmal district in Maharashtra state. This village has witnessed worlds' first successful researched cultivation of cotton by Grithasamad. This cotton could withstand heavy waters and people have named it as Garthasamadam. It is questioned whether this is the same Gossipium?

– Translated from *Ved Chintan*, Vol 2, by Vinobha, pp164-65.

I
Introduction

THE Indian seed industry is rapidly moving into a phase of 'corporate control over seeds' with the introduction of transgenic crops. The biotechnological innovations in the Indian context rely heavily on the technologies and investments of the first world. Development in these areas proceed either through transnational companies setting up their branches or through marriage of convenience between western biotechnology firms and national seed companies. Under this latter scenario, the western collaborator provides technological expertise and investment, while the national counterpart provides the Indian germplasm and a marketing base. Having developed a high level acceptance of hybrid seed, corporate strategists think acceptance of genetically engineered crops will be far easier. Therefore last year, Monsanto entered into an exclusive agreement with Maharashtra Hybrid Seeds Company (Mahyco) and formed a joint venture, to introduce genetically modified *Bacillus thuringiensis (Bt)* cotton in India. As Jack Kennedy of Monsanto has stated " we propose to penetrate in the Indian agriculture sector in a big way. Mahyco is a good vehicle." This venture has been established with all hope that genetically modified cotton will account for entire sales of hybrid cotton seed within a timespan of 7-10 years. This exclusive agreement between the two would require the approval of Mahyco if Monsanto's technology were to be made available to other Indian seed companies.

However, the Indian seed industry is entering into a new phase of development without understanding and assimilating the inherent adverse impacts of genetically modified crops. Full impact of trials of genetically modified organism will only be evident in an ecological and economic study of the environment in which these trials are performed.

Evidence from the green revolution does not leave any doubt that the spread of modern varieties has been an important cause of genetic erosion. The uniformity caused by increasing areas sown to a limited number of varieties is a source of increased risk for farmers, as varieties may become vulnerable to disease and pest attack [Robinson 1996]. The trend, which is being set by the transnational companies through use of genetically engineered plants, is to create a niche for broad international market for a single product, thus creating the conditions for genetic uniformity in rural landscapes. In addition, patent protection and intellectual property rights imposed through the Trade Related Intellectual Property Rights (TRIPs) agreement of WTO will inhibit farmers from re-using, sharing and storing seeds. This increases the prospect that a few varieties will dominate the seed market. Already with monoculture development of crops, agriculture is increasingly threatened by plant diseases, insect pests and weeds. To add to this the introduction of genetically modified crops and intensively managed farms will accelerate the erosion of rich genetic diversity that we own. There is no reason to believe that resistance to transgenic crops will not evolve among insects, weeds and pathogens as it has happened with pesticides. No matter what resistance management strategies will be used, pests will adapt and overcome the agronomic constraints.

The tragedy of farmers committing suicides for a couple of years in some states, highlights some of these high social and ecological costs which are linked to globalisation of non-sustainable agriculture and which are not restricted to the cotton growing areas of various state but have been experienced in all commercially-grown and chemically-farmed crops in all regions. While the benefits of globalisation go to the seeds and chemical corporations through expanding markets, the cost and risks are exclusively born by the small farmers and landless peasants.

Privatisation of the seed sector has induced three major changes in agriculture. Firstly, it has led to change in cropping pattern of farmers' varieties from mixed cultivation based on internal inputs to monoculture of hybrids based on external inputs. Secondly, it has changed the culture of agriculture. Instead of growing food and maximising ecological security and food security, farmers have been induced to grow cash crops for high profits, without assessment of risks, costs and vulnerability. Thirdly, the shift from a public system approach to a private sector approach in agriculture. To add to all these, the new seed policy of the government lifted the restrictions on private sector import of foreign germplasm, enabling larger seed producers, particularly those with foreign collaborations, to access seeds from international sources [Shiva and Crompton

1998]. This has paved the way for big multinationals like Monsanto of the US, to enter our seed market, making the indigenous farmers vulnerable to the aggressive marketing onslaught of the company.

In fact, with the aim of monopolising agricultural systems in all countries, Monsanto is in the process of controlling the entire seed industry by acquiring shares in all the major national and international seed companies. By controlling seed, both through acquisitions and mergers, and through patents, Monsanto in effect is attempting to gain total control over food systems. Table 1 shows Monsanto's share in seed market.

In May 1998, Monsanto entered into a joint venture with one of India's largest seed company Mahyco and formed Mahyco-Monsanto Biotech Limited. Monsanto floated this joint venture with the intention of reaching the otherwise unreached farmers in remote villages where Mahyco has a presence. The statement of Jack Kennedy of Monsanto to penetrate the Indian agricultural sector in a big way using Mahyco as a vehicle has been proved accurate. Monsanto has acquired 26 per cent stake in Mahyco by paying nearly 24 times the paid-up value. Through this acquisition, Monsanto will get a foothold in the already established market of this company which has seed markets not only in India but also in the neighbouring countries [RFSTE 1998].

A Monsanto publication entitled *Leaders in Weed Control*, proudly states "Monsanto's tryst with India began over 20 years ago with Machete, the first rice herbicide in India, in 1975... Our commitment to Indian agriculture does not end with the latest herbicide. It begins." What Monsanto fails to mention is that what begins is war with Indian agriculture. What begins is the destruction of Indian agricultural diversity. What begins is the dependence of Indian farmers on industrialised, unsustainable techniques of the developed nations. What begins is the reduction of years of breeding and innovation to uniform monoculture systems. What begins is a commitment to remain the largest monopoly in agro-chemicals, a commitment to exploit third world farmers. What begins is the launch of a neo-imperialism of seed and food [RFSTE 1998].

The present study is an attempt to understand the corporate control over the genetically engineered crops heralding a new phase in the seed industry through globalisation of agriculture and to understand the threat posed to our seed security by probing into the case of trangenic cotton trials in India. In June 1998 Monsanto of the US, without any prior permission by the government of India, started field trials of its *Bt* cotton in 40 locations spread across nine states in India. The present paper probes into the details of the field trials of its *Bt* cotton at various sites across the length and breadth of India in all the important cotton growing regions. The study analyses the timing of plantation of trial crop, terms of trials of the company with the farmers, criteria for selection of the farmers and the fields, information dissemination on the transgenic crops among the farmers by the company, biosafety measures as practised by the company and by the farmers, comparison of the performance of *Bt* and non-*Bt* crop and ecological risks associated with the transgenic crops in the wake of the biosafety guidelines issued by the department of biotechnology. This paper has been organised into six sections. Section II deals with importance of cotton and a brief history on cotton hybrids. Section III deals with cotton failure and suicides by farmers. Section IV looks into the seed quarantine and biosafety rules with respect to seed production and supply. Section V deals at length with Monsanto's illegal and unscientific field trials in India and probes into the myths created by the company among the farmers and the public. Section VI looks into the need for strong biosafety regulations.

II
Importance of Cotton

Cotton is one of the most ancient and important cash crops. It constitutes nearly 70 per cent of the raw material for the textile industry and directly or indirectly provides huge employment in rural as well as urban sectors.

Cotton cultivated in India can be classified broadly depending upon its cultivation in three distinctly different agroclimatic zones through four different species of *Gossypium* and F-1 hybrids (Table 2). The species composition has shifted from the predominance of diploid (*Gossypium arboreum* and *Gossypium herbaceum*) till the early 1960s, to one with dominance of *Gossypium hirsutum* and tetrapolioc hybrids beyond the 1970s.

There has been significant increase in area under cotton from 7,610 thousand hectares to 9,063 thousand hectares registering a 16 per cent increase from 1960-61 to 1995-96. During this period the yield has been almost doubled from 125 kgs per hectare to 246 kgs per hectare [CICR 1997-98]. However for the last few years there has been failure of cotton crops in all the three zones. For the small and marginal farmers the failures have proved to be serious. The farmers apprehend that the failure of crops is due to supply of spurious seeds by various private seed companies across all the three zones.

Table 2: Increase in Area under Hybrids in India (1975-1998)

(Per cent)

Year	Area
1975	3
1980	11
1985	26
1990	36
1998	40

Source: ICAC (1997), Singh (1998)

Table 3. Area and Production of Species and Hybrids in India

(Per cent)

Species/Hybrids	Area	Production
Species		
G *hirsutum*	36	40
G *barbadense*	<1	<1
G *arboreum*	16	8
G *herbaceum*	8	4
Hybrids		
Intra-hirsutum	35	40
.hirsutum*barbadense	5	8
.herbaceum*arboreum	<1	<1
.arboreum*arboreum	negligible	negligible

Source: ICAC (1997).

Table 1 Mergers and Acquisitions by Monsanto from 1995 to 1998 All Over the World

Year	Company	Country	Specialisation	Share (Per Cent)	Purchased at (US $)
1998	Cargill	Central and Latin America, Europe, Asia, Africa	Seed operations		1.4 billion
1998	Delta and Pine	US	Cottonseed	85	1.82 billion
1998	Dekalb	US	Seed operations		2.3 billion
1998	Mahyco	India	Seed operations	26	24 times paid up value
1998	Unilever	Europe	Seed operation		525 million
1998	EID Parry	India	Seed operation	51	
1997	Holden	US	Seed operation	25-35	
1997	Semetes	Brazil	Seed operations	30	
1997	Millennium	US	Seed operations		118 million
1996	Agracetus	US			150 million
1996	Calgene	US	Seed operations	49.9	
1995	Kelco		Chemicals		1.06 billion
1996	Roche		Women's health care		240 million

Source Compiled from Monsanto (1998) and *The Hindu*, December 21, 1998.

There has been significant increase in the private seed companies operating in these regions. These seed companies are not sincere in meeting the seed needs of the farmers. They are profit-driven and use advanced advertising methods to sell new seed varieties to ill-informed farmers. These seed companies are selling 'truthful' seeds without providing any sort of compensation in case the seeds fail. To add to this, multinational companies are trying to capture the entire seed market for major crops throughout the world by patenting their innovative technologies. These companies are making the farmer further handicapped by making them sign a pre-sale contract. Inherent to the contract is a strict prohibition on the farmers' age-old practice of producing their own seeds, storing, and replanting them.

History of Hybrids

In India hybrid cotton has been introduced since 1970 with the release of world's first hybrid cotton H-4 from Cotton Research Station, Surat in Gujarat. This hybrid cotton by virtue of its high yield potential and adaptability became popular among the farmers initially in Gujarat and later on in the states of Andhra Pradesh, Maharashtra, Karnataka and Madhya Pradesh. Two years after the release of H-4, the world's first interspecific hybrid between *Gossypium hirsutum* and *Gossypium barbadense* called *Varalakshmi* was released from Dharvad in Karnataka, which crossed the state and has spread in states such as Tamil Nadu, Andhra Pradesh and Maharashtra under irrigated conditions. With the success of these two hybrids, several hybrids in tetraploid cottons and a few in diploid cotton were released for commercial cultivation in major cotton growing states.

The area under hybrid cotton in India is given in Table 2. Share of different species and hybrids is given in Table 3. At present maximum area of cotton is covered by hybrids (40 per cent), followed by G *hirsutum* (36 per cent), G *arboreum* (16 per cent), and G *herbaceum* (8 per cent). The area under G *barbadense* is negligible. Among the hybrids, maximum area is covered by intra-*hirsutum* hybrids, followed by interspecific hybrids between G *hirsutum* and G *barbadense*. A very little area is covered by diploid hybrids [Singh 1999].

The central and southern zones saw successful cropping of hybrids. However these hybrids have not become popular among the farmers of north zone and less than 1 per cent area is covered by hybrid cotton in this zone. Statewide area under hybrid cotton is presented in Table 4. Hybrid cotton could not become popular in northern zone due to high cost of hybrid seeds and late maturity. Table 5 gives cotton acreage, production and productivity for the zones.

III
Cotton Failure and Farmers' Suicides

The epidemic of farmers' suicides is the real barometer of the stress under which Indian agriculture and Indian farmers have been put by globalisation of agriculture. Indebtedness and crop failure are the main reasons for farmers' suicides. Also indebtedness and crop failure are inevitable outcomes of the corporate model of industrial agriculture being introduced in India through globalisation. Agriculture driven by MNCs is capital intensive and creates heavy debt for purchase of costly internal inputs such as seeds and agri-chemicals. It is also ecologically vulnerable since it is based on monoculture of introduced varieties and on non-sustainable practices of chemically intensive farming.

The focus of cotton failure has been on the excessive use of pesticides or of spurious pesticides. However, pesticide use is intimately linked to hybrid seeds. Pesticides become necessary when crop varieties and cropping patterns are vulnerable to pest attacks. Hybrid seeds offer a promise of higher yields, but they also have higher risks of crop failure since they are more prone to pest and disease attack as illustrated by the Andhra Pradesh experience. Monocultures further increase the vulnerability to pest attacks since the same crop of the same variety planted over large areas year after year encourages pest build-ups.

Andhra Pradesh Cotton Failure

More than 300 cotton farmers have committed suicide in Andhra Pradesh in 1997-98. Cotton cultivation has been taken up in areas which were not traditionally cotton growing areas. One such region is Warangal district, which has switched over from food crops to cotton which is relatively a new crop introduced under trade liberalisation. The area under cotton in this region grew over three times in a decade. The increase in area under cotton has been due to the good returns that the farmers were getting on cotton.

However, the cotton failed due to severe pest attack. The frequent sprays and spurious quality of pesticides used made them even more ineffective. Most farmers had spent between Rs 12,000 to Rs 15,000 an acre on pesticides. The heavy investment made in purchase of agri-chemicals could not be recovered because the yield was much below the expected level and it even did not cover the input cost. The small farmers who had taken loans and material on credit were driven into debt and then to suicide.

The present agricultural season in the state of Andhra Pradesh has also seen suicides by farmers, 15 in the last two months of 1998. Bearing incessant rains and drought, working hard for the whole year and not getting a reasonable price for the produce, unable to pay back the loan obtained from private moneylenders, farmers are resorting to suicides. In the state last year around 300 farmers committed suicide. Out of these approximately 130 farmers belonged to Warangal district.

Farmers, lured by the good features of the varieties of cotton seeds of a few companies advertised in their villages, cultivated their lands with new varieties of cotton, namely, Navratan, Ajith, Parry White Gold, Bioseed. Keeping in mind the losses incurred during the past cotton crop, cotton has been cultivated with utmost care. In spite of that, the adulterated seeds have destroyed thousands of acres of cotton crop in Parakala, Regonda, Atmakuru, Geisukonda, Sangyam, Dharmasagar mandals of the district.

In the district itself, the extent of area under these varieties of cotton is around 30 thousand acres, which is spread across 200 villages in 27 mandals. It is believed that about six seed companies were successful in introducing these varieties in the villages through their field distributors.

Interestingly, the seed companies are selecting their seed distributors from the village itself. These distributors are found to be the large farmers who were well off and have a say in decision-making for a number of villagers. The films shown to the farmers have a great impact on the choice of seed. Many of the farmers were reporting that the boll size and the opened boll were very good in the films. However they could not get a single boll so far, and whatever bolls formed were shed by the plant without opening.

In Ulligedda Damera, in Atmakuru mandal of Warangal district, the whole village has planted a total of 150 acres with Navratan Ajith variety of cotton. Madarappu Ramesh, who has cultivated Navratan Ajith, informs that he has invested Rs 10,000 to Rs 11,000 per acre on his cotton crop. Of this investment nearly 70 per cent is spent on the chemicals and fertilisers. In the same village another farmer, Gudur Rajaiah has cultivated three acres of land with Navratan Ajith variety and admits that he also incurred the same cost of cultivation for the crop. His situation is worse as compared to M Ramesh as he has a debt of Rs 90,000 from the 'adti' shop at an interest rate of 36 to 48 per cent.

All of them learnt of this variety of seed from TV film (video film) shown to them in their village. And almost all the farmers have debts either at the 'adti' shops or with the landowners.

In another village Pallarigudda in Sangyam mandal of Warangal district, almost all the farmers of this village have cultivated their fields with Parry White Gold (PWG). The standing crop is very robust but without any bolls on the plants. The distributor of PWG seeds is from the village itself and he is not convinced that the yield is not there. About 150 villagers have taken their cases in the district consumer redressal forum at Warangal against the failure of PWG and demanded appropriate compensation for them by the company. Government officials visited the fields of farmers whose cotton crops have failed.

In addition to the seed failure, in many mandals yellow-insect pest of cotton has destroyed the entire standing crops. The farmers reported that the agriculture department of the state has shown total negligence in disseminating the advice of scientists and this has resulted in the havoc caused by the pest. Added to this, the farmers, persuaded by the suggestions given by the pesticide shopkeepers, have used high-cost but inferior chemicals, which could not reduce the pests attack on the cotton crop. Also the rate for cotton per quintal is not more than Rs 1,500 which is not commensurate with the investment made on the crop. The same pesticides, though, did kill the farmers. Table 6 gives details of farmers who committed suicides.

Through discussions with various seed and pesticide merchants at Warangal, it is revealed that the seed companies provide a very high margin on their products and also they do not demand immediate payment through cash. About 80 per cent of the transactions are on credit basis. They get nearly 45 to 60 days of credit. The merchants pay the seed companies through post-dated cheques. In turn the merchant sells the product on credit to the farmers. The same merchants sell the chemicals and fertilisers required for the crops. Getting everything under one roof and that too without paying cash, i e, on credit tempts the farmer and makes him receptive to suggestions given by the merchant. In this way the farmer sinks in to indebtedness.

Various seed and chemical companies that are operational in Warangal are Shaw Wallace, ICI, Rallis India, Saral India, Novratis, Nocil, Bayer with various brands. Some of these have come in after liberalisation opened the seed sector to foreign companies.

Maharashtra Cotton Failure

Similarly, farmers in Yavatmal district in Vidharbha, for the last few years, are facing of cotton failure despite favourable climatic conditions and uninterrupted supply of inputs. The yields have drastically decreased from a quintal to a few kilograms per acre over these years.

The plight of organic farmers is more severe and they are struggling for survival in the wake of failure of not only cotton but also other important crop seeds such as 'toor'. Till 1992, majority of farmers were cultivating basic normal hybrid (AHH 468) which was fairly consistent and provided normal yield. The problem in this region started since 1992, when a new variety of cotton (CAHH 468), was introduced to the farmers in the region. The farmers found that the new hybrid, which has not been certified by the government, failed to perform well in spite of all the care taken by them. As reported by the farmers, the yield registered was almost negligible in subsequent years. These seeds were supplied by some of the seed companies trusted by the farmers for years. Some of these include Nath Seeds, Aurangabad, Ajith Seeds, Jalana, and Sanjay Seeds, Jalana. The government outlets for selling seeds are supplying substandard seeds to the farmers. Some farmers have brought this to the notice of the authorities of these seed companies. For instance, 'karadi' (Bhima) seed (marketed by Mahabeej, Akola) which have been duly certified by a certifying agency was found to be substandard. Cotton and toor are commonly intercropped. These farmers found that not only cotton but also seeds of toor failed to perform.

Issue of Accountability

Unaccountability and lack of democracy under any condition generates disasters. This is the message of the increasing seed failure under globalisation. When techno-

Table 4 Statewise Area under Hybrid Cotton

States	Types of Hybrid Grown	Area in Per Cent
Punjab, Haryana and Rajasthan	Intra-*hirsutum* and Intra-*arboreum*	Less than 1
Gujarat	Intra-*hirsutum* and Interspecific diploid hybrids	50
Maharashtra	Intra and Interspecific tetraploid hybrids	50
Andhra Pradesh	Intra and Interspecific tetraploid hybrids	65
Karnataka	Interspecific tetraploid and diploid hybrids, and Intra-*hirsutum* hybrids	70
Madhya Pradesh	Intra-*hirsutum* hybrids	42
Tamil Nadu	Intra and Interspecific tetraploid hybrids	15

Source. Singh (1999).

Table 5 Zonewise Cotton Area, Production and Productivity for 1997-98

Zone	States	Averages as (Per Cent of Total)		
		Area	Production	Productivity (Kg/ha)
Northern zone	Punjab, Haryana, Rajasthan	23	19	238
Central zone	Gujarat, MP, Maharashtra	50	56	412
Southern zone	AP, Karanataka, Tamil Nadu	17	25	382

Source: *Annual Report*, CICR, 1997-98

Table 6: Details of Farmers who Committed Suicide during November-December 1998 in Warangal District

Name of Farmer	Age	Village	Mandal	Date of Suicide
Ketapalli Sambi Reddy	40	Ogalpur	Atmakur	October 22
Bhukya Sarma	35	Harischandra Nayak Tandra	Hasanparti	November 8
Kari Kumari Lingayya	49	Gidde Muttaram	Chityala	November 11
Malotu Danja	40	Mangalvaripeta	Khanapuram	November 12
Nagelli Tirupati Reddy	26	Challlagarige	Chityala	November 14
Indla Ayilayya	36	Neredupalli	Bhupalapalli	November 18
Pacchi Kalaya Someswara Rao	48	Aakinepalli	Mangapeta	November 19
Kattula Yakayya	32	Samudrala	Stn Ghanpur	November 19
Akutota Venkatayya	65	Govindapuram	Sayampeta	November 21
Bolla Hari Krishna	22	Nadikuda	Parakala	November 24
Edelli Lakshmi	45	Rauvlapalli	Regonda	November 18
Cheviti Veeranna	28	Tehsildar Banjar	Dornakal	December 3
Pentla Odelu	42	Nagurlapelli	Regonda	December 16
Ragula Devender Reddy	25	Jubilee Nagar	Regonda	December 16
Tallapalli Lakshmayya	38	Solipuram	Narmetta	December 18

Source: *Prajasakhti* newspaper.

logical totalitarianism converges with economic totalitarianism to make genetic engineering the basis of commercial activity by coercing farmers and consumers, the potential disasters can be unprecedented. The combination of total irresponsibility in manipulating the genetic structure of crops and totalising rights over life forms through intellectual property rights makes for absolute rights and absolute irresponsibility on the part of the biotechnology industry.

The question, which becomes very pertinent in this context, is that who is going to be accountable for what is happening to the farmers? Who is going to take care of the social and economic liabilities of the farmers? Who is accountable for meeting the biosafety norms? These are some of the basic questions, which need to be answered before anything further is done on the introduction of genetically engineered crops in India.

IV
SPS Quarantine and Biosafety Rules

The tremendous growth of research in the field of biotechnology has not been matched by the development of necessary infrastructure for education and research on biosafety, impact assessments on genetic engineering and for safety measures and regulations. There is presently no exact predictive science or exact predictive ecology capable of accurately anticipating the behaviour and effects of genetically modified organisms. Ecological dynamics display the entire range of complex behaviours typical of systems involving complicated couplings and feedbacks between different processes. This makes prediction inherently problematic and requires that utmost care be exercised in drawing even the most uncertain conclusions. Nevertheless, biotechnology regulators tend not to use the most advanced and modern sciences in making risk assessments. The precautionary principle should thus be strictly applied to activities involving genetic engineering.

There are grounds for suspecting that proponents of genetic engineering are following a policy of 'strategic ignorance', characterised by neglect of standards and safety considerations, disregard for scientific inputs and assessments, and suppression of information on adverse effects.

Policy on Registration of Seeds

In the present scenario there are two types of seeds available in the market for the farmers to buy. These are (i) certified seeds and (ii) truthful seeds. Certified seeds are sold on certification of purity by the government. For any company to launch certified seeds it takes at least six to seven years of undergoing trials and verifications under the supervision of government authorities. However to avoid such delays in the launch of seeds in market, seed companies sell the seeds as 'truthful' seeds, which means that the company sells seed asking the farmers to accept the company's claims as truthful. There is no regulation to prevent marketing of 'truthful' seeds. The sale and exchange of truthful seeds was prevalent among the farmers before the seed companies were functioning. The farmers used to exchange or buy seeds from other farmers and such seeds were known as truthful seeds because farmers could trust each other. The corporate seed companies replaced the farmers' seed supply but continued with the practice of using the label 'truthful' for seeds, and no public regulation was prevalent to prevent such sale.

In such a situation, the introduction of genetically engineered (GE) seeds becomes worrisome. In absence of any such regulation, the costlier GE seeds will offer no guarantee for whether they perform well or not. This will lead to complete erosion of the agricultural biodiversity and adversely affect the socio-economic status of the farmers. This will be further aggravated since GE seeds will be patented, and corporations will treat information about them as proprietary.

Indian Biosafety Regulations

In India, compliance of requisite safeguards at various levels of research on plants including the development of transgenic plants and their growth in soil is governed by biosafety guidelines issued by the department of biotechnology from time to time. In 1989, the ministry of environment and forests empowered the review committee on genetic manipulation (RCGM) to bring out manuals of guidelines specifying procedure for regulatory process with respect to activities involving genetically engineered organisms in research use and applications including industry with a view to ensuring environmental safety.

The figure gives the organogram for the presently existing guidelines for research, field trials and commercial application of transgenic plants. The committee which approves field tests and environmental release of GMOs is the Genetic Engineering Approval Committee (GEAC).

However, it is not clear whether the Monsanto trials were cleared by GEAC or by the Review Committee on Genetic

Table 7 Comparison of Actual Dates of Planting and Date of Permission, 1998

Location		Sites in the Respective State Visited by Research Foundation	Actual Date of Planting on Individual Fields
Date of Permission by DBT July 27			
Total	= 25	Mehboobnagar, Andhra Pradesh	End of June 98
A P	= 7	Kurnool, Andhra Pradesh	June 20, 98
Maharashtra	= 6	Warangal, Andhra Pradesh	June 26, 98
Gujrat	= 2	Rangareddy, Andhra Pradesh	End of June 98
Karnataka	= 2	Yavatmal, Maharashtra	June 24, 98
M P	= 2	Raichur, Karnataka	Mid June 98
Haryana	= 1	Bellary, Karnataka	June 17, 98
Punjab	= 1	Khargoan, Madhya Pradesh	First week of July 98
Rajasthan	= 1	Hissar, Haryana	June 19, 98
Tamil Nadu	= 2		
Date of Permission by DBT August 5			
Total	= 15	Haveri, Kanataka	June 26, 98
AP	= 3	Sirsa, Haryana	June 28, 98
Maharashtra	= 4	Gurgoan, Haryana	Mid June 98
Gujarat	= 1	Firozpur, Punjab	June 29, 98
Karnataka	= 2		
Haryana	= 2		
Punjab	= 1		
Tamil Nadu	= 1		

Source: Compiled from Primary Survey of Trial Sites.

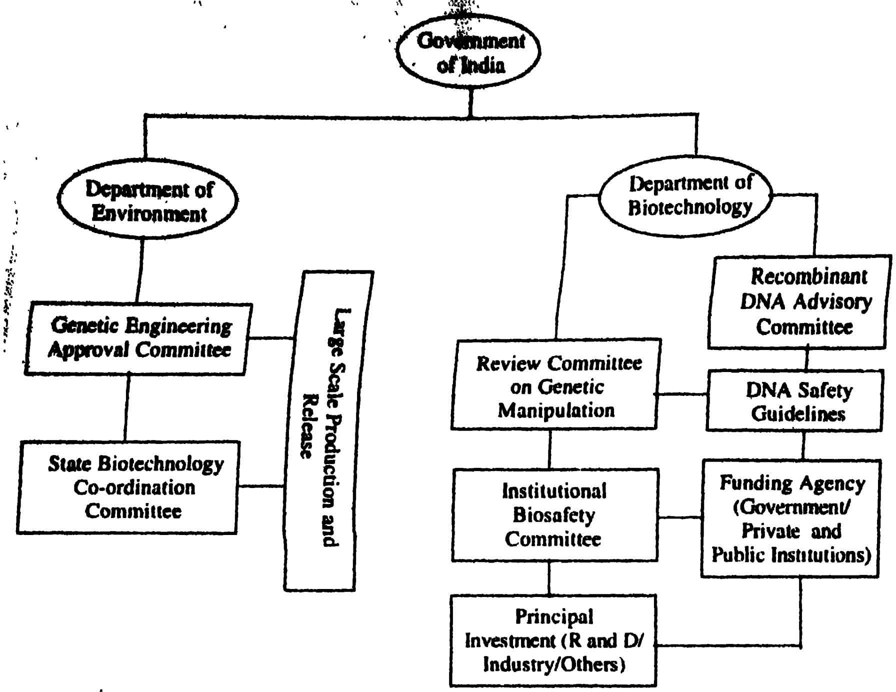
Table 8. Yield Reported by the Farmers in the Trial Plots for Bt Cotton

(*Kg/acre*)

Name of the Farmer and Location	Bt Yield/Acre	Non-Bt Yield/Acre
Lehri Singh, Hissar, Haryana	745 Kg	880 Kg
Harpal Singh, Sirsa, Haryana	5 Kg	200 Kg
Surendra Singh Hayer, Punjab	Poor yield	250 Kg
Mahalingappa Shankarikopp, Haveri, Karnataka	700 Kg	700 Kg
B V Nunjundappa, HBHalli, Karnataka	Poor yield	Not performed well
Karelli Bakka Reddi, Rangareddy, Andhra Pradesh	50 Kg	150-200 Kg
Bansi lal Lakhmi, Khargoan, Mahdya Prsedh	12 Kg	300 to 400 Kg

Source: Compiled from Primary Survey of Trial Sites.

FIGURE 1: INSTITUTIONAL MECHANISM FOR IMPLEMENTATION OF GUIDELINES



Manipulation (RCGM). Since the state governments were not consulted and Mahyco has only shown a letter of approval from the department of biotechnology under which the RCGM functions, rather than the ministry of environment, under which the GEAC functions, it is possible that the trials only had a RCGM clearance, and not a clearance through GEAC which would have required consultation with state biotechnology co-ordination committees (SBCC).

However, RCGM is only supposed to clear contained lab experiments, not field experiments in open farmers' fields of the kind that are being undertaken in various locations in India. Field experiments need to be cleared by the GEAC since they take place in the open environment and their risks are not contained. The full ecological impact of such trials needs to take into account interaction with diverse species, impact on soil, impact on biodiversity and impact on public health.

According to Article 4.1 (i) and (ii) of Recombinant DNA Safety Guidelines, 1990, GEAC is supposed to regulate experimental field trials and research developmental activity. To quote Article 4.1 (i) and (ii):

4.1 GEAC will have the Biotechnology Co-ordination Committee under it which will function as legal and statuary body with judicial powers to inspect, investigate and take punitive action in case of violations of statutory provisions under EPA.

(i) Review and control of safety measures adopted while handling large-scale use of genetically engineered organisms/ classified organisms in research, developmental and industrial production activities.

(ii) Monitoring of large-scale release of engineered organisms/products into environment, oversee field applications and experimental field trials.

Since neither were the state governments involved, nor have the trials proceeded on a case by case and step by step basis from laboratory, to contained environment, to open environment and have been rushed to the stage of trials in open fields of farmers as the first step, Monsanto trials are clearly illegal and illegitimate even under the presently existing weak guidelines for regulation of GE crops.

Under Article 16 of the Environment (Protection) Act, 1986, these trials are an environmental offence and should be treated as such in law.

Offence by companies

(1) Where any offence under this Act has been committed by a company, every person who, at the time the offence was committed, was directly in charge of, and was responsible to, the company for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly:

Provided that nothing contained in this sub-section shall render any such person liable to any punishment provided in this Act, if he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Explanation – For the purposes of this section,

(a) "company" means any body corporate, and includes a firm or other association of individuals; and

(b) "director", in relation to a firm, means a partner in the firm.

Under the above Article, Monsanto has committed an offence and should be deemed guilty and should be liable to be proceeded against and punished accordingly.

The produce from the trial plots of the *Bt* cotton has been directly sold in the open market mixing it with normal cotton. This has been serious lapse on the part of the permitting authority and the company as well. The produce from trials is to be fully contained and should have been destroyed by burning.

V
Monsanto's Trials in India

Even from the viewpoint of a totally inadequate biosafety regulation framework in this country, the Monsanto trials are illegal and unscientific. As long as the genetic engineering is taking place in labs or in farms that are totally contained, the RCGM of the department of biotechnology governs the approval. The moment trials are conducted on the open environment, as the case is with these trials, the GEAC governed by the ministry of environment and forests becomes active under the Environment Protection Act 1986. The list of all the trial sites is given in Table A. In what follows, we present how these trials are illegal, unscientific and fraudulent.

TABLE 9: NUMBER OF CHEMICAL SPRAYS ON BT COTTON PLOT

Name and Location of Farmer	Number of Sprays on *Bt*-Crop
Surinder Singh Hayer, Sirsa, Haryana	5 to 6
Lejri Singh, Firozpur, Punjab	3
Mahyco R D Centre, Gurgoan, Haryana	3
B V Nanjundappa, Bellary, Karnataka	4
V Thirupalliah, Kurnool, AP	4

Source: Compilation from Primary Survey, December 1998.

Planting of Bt Cotton before Permission Granted

The stamp of clearances for all the trials of genetically modified cotton came through P K Ghosh, who is the advisor to RCGM through its letter dated July 27, 1998 and August 5, 1998 to Maharashtra Hybrid Seeds Company (Mahyco) to carry out multicentric trials on transgenic cotton (*Bacillus thuringiensis*) initially at 25 locations by permission dated July 27, 1998 and thereafter 15 locations by permission dated August 5, 1998 making 40 locations in nine states. The date of sowing obtained from individual farmers show that the crop had been sown before the trial permissions were obtained in June 1998. Table 7 complied on the basis of actual field observation shows that the dates of actual sowing of *Bt* on the trial plots were much earlier to the permission granted by the wrong committee.

The field trials of *Bt*-cotton on 40 locations in nine states are totally unscientific and illegal. The permission granted to Mahyco-Monsanto for the open field trials is in category of organisms with potential ecological risks and these environmental risks need to be assessed and regulated in accordance with the rules called the 'Rules for the Manufacture, Use, Import, Export and Storage of Hazardous Micro-organisms Genetically Engineered Organisms or Cells, 1989' framed under the Environment (Protection) Act, 1986 (hereafter referred to as 'Rules'). The permission has been granted for carrying out multicentric field trials without assessing ecological impact on biodiversity, protection of environment, danger to agriculture and health hazards to human beings and animals. The said permission has not only been granted in violation of the provisions of the above mentioned Rules which clearly stipulate that any such permission can be granted only by the GEAC under the ministry of environment and forests, but also of the guidelines of department of biotechnology which have been framed under these Rules. Rules are totally inadequate to deal with the present state of genetic engineering. The permission is further vitiated by reason of the concerned nine states not being consulted before granting such permission when 'agriculture' is a state subject and such experimentation has direct impact on the agriculture of a particular state. In fact, the two committees, viz, state bio-technology co-ordination committee (SBCC) and the district level committee (DLC) were not informed in advance before the grant of permission as these committees are concerned with biosafety of such genetically engineered trials in the state as well as in a particular district. Therefore the permission which has been granted is violative of Articles 14, 19 and 21 of the Constitution; it is also violative of the provisions of Environment (Protection) Act, 1986 and the Rules framed under section 6, 8 and 25 of the said Act.

Myth of High Yield

The yields in all the trial plots were found to be low as compared to what the company promised. A comparison of the local hybrid variety cultivated and *Bt* shows that the yield from both the crops was more or less same. The failure of *Bt* to

Table A: Sites for Field Trials cum Demonstrations

Sl No	State	Sl No	District	Tehsils/Mandals	Village	Survey No	Farmer's Name	Area
1	Andhra Pradesh	1	Guntur	Rentanchitala	Rentachintala	44	Thumma Fatima Reddy	1 acre
	"	2	Mahboobnagar	Bijnepally	Manganur	268	Indla Mallikarjun Rao	1 acre
	"	3	Khammam	Madira	Dendukur	581 and 582	K Ranga Rao	1 acre
	"	4	Kurnool	Pagadiala	Nagatur	228	O Tirupalliah	1 acre
	"	5	Warangal	Atmakur	Vurugondo	121	Bollu Sami Reddy	1 acre
	"	6	Rengareddy	Vikarabad	Kothagadh	130	Karella Bakku Reddy	1 acre
	"	7	Adilabad	Adilabad	Ponnari	12/43	Meghraj Sharma	1 acre
	"	8	Prakasham	Addanki	Gopalpuram	71/1	Yerra Hanumanth Rao	1 acre
	"	9	Karimnagar	Vemulawada	Pushpanagar	428	Kalakam Show Reddy	1 acre
	"	10	Rengareddy	Rengareddy	Medchal	93 RU/93 LU	Kailash Charan	1 acre
	"	11	Rengareddy	Shamshabad	Kavaguoa	467	Mahyco Seeds Company	1 acre
2	Maharashtra	12	Yavatmal	Kelapur	Both	32	Arunbhau S Thakre	1 acre
	"	13	Jalna	Bhokardan	Viregoan	5	Baburao T Pise Patil	1 acre
	"	14	Parbhani	Sailu	Kolha	45	Ganpatrao B Bhise	1 acre
	"	15	Nanded	Nanded	Barad	338/1	Kerbaji P Bhimewar	1 acre
	"	16	Buldana	Malkapur	Lonwadi	7	Narhari G Patil	1 acre
	"	17	Jalgaon	Chalisgaon	Umberkhede	63-1-A	Dhanraj A Patil	1 acre
	"	18	Latur	Udgir	Lohara	434	Chandrarao H Sontake	1 acre
	"	19	Amravati	Warud	Warud	2	Rambhau N Hole	1 acre
	"	20	Jalna	Jalna	Jamwadi	198	Mahyco Seeds Company	1 acre
	"	21	Akola	Telhara	Chittalwadi	29	Vijay A Ingle	1 acre
3	Gujarat	22	Vadodara	Karjun	Pingarwada	455	Kishore Bhan T Shah	1 acre
	"	23	Rajkot	Gondal	Bhuvna	66	Naganbhai Tejabhai	1 acre
	"	24	Mehsana	Gozaria	Parsa	82	Harshadbhai Bhailal Patil	1 acre
4	Karnataka	25	Raichur	Sindhanur	Maladagudda	238/A	Basanna J Kunsala	1 acre
	"	26	Bellary	Hagari Bommanhalli	Ranikkar	291/B	B V Nanjundappa	1 acre
	"	27	Dharwad (Haveri)	Hangal	Adur	141	Mahalingappa S Sankarikoppa	1 acre
	"	28	Chittradurga	Harihar	Duggavathi	115	B Chandrappa and S Ramappa	1 acre
	"	29	Haveri	Ranebennur	Kunbev	98	Mahyco Seeds Company	1 acre
5	Madhya Pradesh	30	Khargone	Barwah	Keeduh	250	Bansi Lal	1 acre
	"	31	Khandwa	Burhanpur	Mohammadpura	204	Chaganlal C Mahajan	1 acre
6	Haryana	32	Hissar	Hissar	Mayar	82/16 Murabba	Lehri Singh	1 acre
	"	33	Sirsa	Mandi Dabwali	Allika	–	Harpal Singh	1 acre
	"	34	Gurgoan	Farrukhnagar	Sewari	76	Mahyco Seeds Company	1 acre
7	Punjab	35	Bhatinda	Talwandi	Maiserkhana	124	Tej Singh	1 acre
	"	36	Firozpur	Abohar	Rajanwalli	6/21	Surinder Singh	1 acre
8	Rajasthan	37	Sriganganagar	Kesri Singhpur	Chak 22F	54	Ram Das Jain	1 acre
9	Tamil Nadu	38	Theni	Theni	Verrapandi	102/1F	Narayanswamy	1 acre
	"	39	Dharmapuri	Uttamkarai	Kannanoor	10/1	A Jaychandran	1 acre
	"	40	Coimbatore	Valampalayam	Kondayampalayam	119	Mahyco Seeds Company	1 acre

yield has been reported from all over the world. The Mississippi Seed Arbitration Council has ruled that Monsanto's Roundup Ready Cotton failed to perform as advertised last year (1997) and recommended payments of nearly $2 million to three cotton farmers who suffered severe crop losses.

The performance of *Bt* with respect to other non-*Bt* cotton in some of the trial sites is given in Table 8. It has been observed that in almost all the sites, farmers reported that except for the protection from bollworm nothing much has benefited them. The cost of cultivation has also worked out to be same for all the farmers.

Myth of Reduction in Pesticide Use

According to industry, the promise of transgenic crops inserted with *Bt*-genes is the replacement of synthetic insecticides now used to control insect pests. Since most crops have a diversity of insect pests, insecticides will still have to be applied to control pests other than Lepidoptera not susceptible to the endotoxin expressed by the crop [Gould 1994]. On the other hand, several Lepidoptera species have been reported to develop resistance to *Bt* toxin both in field and laboratory tests, suggesting major resistance problems are likely to develop in *Bt*-crops which through continuous expression of the toxin create a strong selection pressure [Tabashnik 1994]. Monsanto company admits that bollworm larvae greater than ¼ inch long or 2 to 4 days old are difficult to control with Bollgard alone (see promotional material of Monsanto). It recommends applying supplemented insecticide treatment and further recommends to the farmers that "if sufficient larvae of this size are present you may need to apply supplemental treatment at intervals" [Monsanto Company 1996].

The company suggests maintaining a refuge to Bollgard cotton for pest/insect resistance management. These refuge acres must be planted in close proximity of Bollgard cotton and recommends that four acres of non-Bollgard cotton refuge for every 100 acres of Bollgard cotton should be planted. In India, most of the farmers in the cotton growing zones are small-scale farmers with small and marginal landholdings. For such farmers it is very difficult to maintain such refuges [Monsanto Company 1996].

In another instance, the pesticide effect of the engineered *Bt* was not sufficient to kill off all pests throughout the season as Monsanto promised. Mae-Wan Ho, of the UK's Open University, attributes this failure to unpredicted changes in the behaviour of the *Bt*-gene. In 1997, 20 per cent of the first commercial crop of Roundup Ready cotton suffered deformed bolls and bolls dropping off early.

An analysis by the Pesticides Trust on behalf of Greenpeace argues that the introduction of herbicide resistant varieties will alter the pattern of herbicide use but will not change the overall amounts used. If it leads to greater use of glyphosate this will damage other crops and have potential adverse effects on wildlife, including beneficial insects such as ladybirds. The analysis further shows that the compounds can remain active in the soil for long periods and can contaminate water [International Agricultural Development 1998].

Table 10: Comparison of the Field Trial Design with Actual Field Practice and Ecological Trial Parameters as Specified by Biosafety Regulations

Trial Design	Actual Field Practice	Ecological Trial Parameters
• Experimental design for the quadruplicate trials of *Bt*-cotton would be in field space of about 1,394 sq meters.	• 1,800 sq meters of plots were used.	• Impact of leaf fall on soil organisms. • Impact on non target species. • Emergence of resistance.
• Experimental plots containing transgenic *Bt*-cotton plants should be surrounded by an isolation distance of 5 meters with no plantations.	• No isolation distance. Instead crops were planted in between the plots.	• Experimental plots in total isolation. Series of experiments to be conducted in contained environment. • Assessment of the impact on other crop and plant species dominant in the region.
• Comparative assessment of lepidopteran pest load in randomised *Bt*, non-*Bt* field along with non-*Bt* foeld plantations due to host preference.	• No data available.	• Integrated analysis of flora and fauna in soil and agro-ecosystem within a distance covered by pollination potential.
• Performance of the *Bt* and non-*Bt* hybrids for yield and fiber quality.	• Manipulation in comparing the yield of *Bt* and non-*Bt* cotton by opting for its own inferior variety and not taking the most common variety cultivated by the farmers in the region.	• Local cultural practices should not be manipulated and comparison should be made with the most commonly grown variety of the crop.
• Keep full account of the transgenic materials and seeds in the transgenic plots and use all transgenic material in a contained environment.	• Free sale of the *Bt*-cotton produced mixed with normal cotton produce in the market by the farmers. No precaution of containment.	• Complete destruction of the material/produce obtained from the trials.
• All materials, like quantities of transgenic *Bt*-cotton seeds produced, transgenic cotton produce, etc, after experimentation be reported to the government.	• Taluk level concerned government departments unaware of the experimentation and did not receive any material or produce of the trangenic *Bt*-cotton.	• All concerned committees at all levels of institutional hierarchy should be well informed about any trials with the genetically modified organisms in the field.
• Ensure company authorised personnel permitted to visit experimental sites.	• Mahyco organised 'kshetra utsav' for publicity of the *Bt*-cotton among other farmers of the region surrounding the trial fields.	• While in research conditions all the results should be open and accessible to the interested citizens of the country.
• Ensure adherence to Recombinant DNA guidelines of the government of India.	• No adherence to the guidelines laid by the government of India.	• Strong biosafety regulations needed. • More public participation needed.

Source: Compiled from Primary Survey, Biosafety Guidelines and Rissler and Mellon (1996).

Table 11: Genetic Engineering

	Genetic Engineering Assumptions	Reality of Scientific Findings
1	Genes determine characters in linear casual chain: one gene gives one function.	Genes function in complex network; causation is multidimensional, non-linea and circular.
2	Genes and genomes are not subject to environmental influence.	Genes and genomes are subject to feedback regulation.
3	Genes and genomes are stable and unchanging.	Genes and genomes are dynamic and fluid and can change directly in response
to		the environment and give adaptive mutations to order.
4	Genes stay where they are put	Genes can jump horizontally between unrelated species and recombine.

The actual pesticide sprays by the farmers at various trial sites in India reveal that the use of pesticides has not at all stopped for *Bt* crop. Pesticide sprays ranging from as high as 12 to 15 in one of the trial fields in Haryana to a minimum of three in most of the trial fields have been observed. According to Basavanappa in Hagari Bommanahalli taluk, Bellary district, the number of sprays in all the three test plots of *Bt* and non-*Bt* has been almost the same. He incurred an expense of around Rs 6,700 for chemicals sprays and fertilisers. This amount is almost the same as that spent by all other conventional/hybrid cotton growers on purchase of chemicals and fertilisers in that part of the state. Table 9 gives the number of sprays farmers used on the *Bt* plots. Contrary to the claim of Monsanto about the reduction of chemical sprays, farmers had to revert to chemical spraying in spite of built-in insecticidal properties in the *Bt*-cotton.

No Environmental Assessment

The wrong committee asked Mahyco-Monsanto to generate data on pest load, performance in terms of yield and fibre quality, to compare the insect damage on the boll shedding and retention for *Bt*-cotton. There has been no concern to monitor the impact of transgenic crops on the surrounding flora and other relevant ecological aspects. A comparison of the field trial design with actual field practice and required ecological trial parameters as specified by biosafety regulations is presented in Table 10.

Potential Environmental Impacts

Transgenic plants are the crops that have been genetically engineered to contain traits from unrelated organisms. The spread of transgenic crops threatens crop genetic diversity by simplifying cropping systems and promoting genetic erosion. The potential transfer of genes from pesticide resistant crops to wild or semi-domesticated relatives may create new super weeds.

There is serious mismatch between the mindset of genetic engineering biotechnology and the reality of the new genetics (Table 11).

Insects were found to develop resistance rapidly to the transgenic plants with built-in biopesticide, when exposed to the toxin. This has been the problem with the *Bt*-cotton crop at Texas. The widespread use of *Bt* containing crops could accelerate the development of insect pest resistance to *Bt*, which is used for organic pest control. Already eight species of insects have developed resistance to *Bt*-toxins including diamond black moth, Indian meal moth, tobacco budworm, colorado potato beetle and two species of mosquitoes [Altieri 1998].

Due to potential risks associated with genetic engineering, article 19.3 of the Convention on Biological Diversity called for a biosafety protocol, which is currently being developed through international negotiations. This is also the reason France has banned all genetically engineered crops and the UK has responded to the call of citizens by having a 1-year moratorium on release of genetically engineered crops. Most recently, IFOAM, the world's largest body for organic agriculture called for a ban on genetic engineering from agriculture because it poses unnecessary hazards with little benefit for the development of agriculture.

Risks of Monsanto's Toxic Plants

Monsanto's genetically engineered 'Bollgard' cotton or *Bt*-cotton has genes from a bacteria engineered into it so that the plant produces its own pesticide. Contrary to Monsanto's claim, *Bt*-cotton is not 'pest-resistant' but a pesticide producing plant. The severe ecological risks of crops genetically engineered to produce toxics include the threat posed to beneficial species such as birds, bees, butterflies, beetles which are necessary for pollination and for pest-control though prey-predator balance. Nothing is yet known of the impact on human health when toxic producing *Bt*. crops such as potato and corn are eaten or on animal health when oilcake from *Bt*-cotton or fodder from *Bt*-corn is consumed as cattle feed.

Further, while pesticide producing plants are being offered as an alternative to spraying pesticides, they will in fact create the need for more pesticides since pests are rapidly evolving resistance to genetically engineered *Bt*-crops. The widespread use of *Bt* containing crops could accelerate the development of insect pest resistance to *Bt*, which is used for organic pest control. The genetically engineered *Bt*-crops continuously express the *Bt*-toxin throughout the growing season. Long-term exposure to *Bt*-toxins promotes development of resistance in insect populations, this kind of exposure could lead to selection for resistance in all stages of the insect pest on all parts of the plant for the entire season. Due to this risk of pest resistance, the US Environment Protection Agency (EPA) offers only conditional and temporary registration of varieties producing *Bt*.

Monsanto's technology will therefore destroy beneficial biodiversity and create superpests both through wiping out pest predators and by creating pests which are resistant to pesticides. Monsanto's pesticide producing *Bt*-crops are not based on the terminator technology, which terminates germination of seed so that farmers cannot save it. However, they are in an ecological sense terminator, which terminates biodiveristy and the possibilities of ecological and sustainable agriculture based on the conservation of biodiversity.

The ecological impact of *Bt*-cotton cannot be assessed on the basis of a 3-month trial. The trial needs to be carried out over 2-3 seasons and impact needs to be assessed on all organisms, including soil micro-organisms which have been known to be killed by the toxics in *Bt*-crops. To get the full ecological impact of biodiversity destruction and genetic pollution caused by genetically engineered crops, the following steps are necessary.

– a full biodiversity assessment of the ecosystem in which the GMO is to be introduced;

– impact of genetically engineered crop on diverse species including pollinators and soil micro-organism; and

– risks of transfer of genetically engineered traits to non-engineered crops through horizontal gene transfer and pollination.

None of these essential steps for ecological risks of GMOs has been carried out in Monsanto's present trials with Bollgard cotton.

When Monsanto states that they have had 93 per cent success they are referring to agronomic performance, not to ecological safety. Further, since the *Bt*-technology is aimed at pesticide production, not yield increases, Monsanto is deliberately distorting facts when it refers to yield increasing characteristics of Bollgard cotton.

Monsanto is also misinforming the public when it states that pesticide producing plants mean no pesticide needs to be sprayed. The primary justification for the genetic engineering of *Bt* into crops is that this will reduce the use of insecticides. One of the Monsanto brochures had a picture of a few worms and states. 'You will see these in your cotton and that's OK. Don't spray.' However, in Texas, Monsanto faces a law suit filed by 25 farmers over *Bt*-cotton planted on 18,000 acres which suffered cotton bollworm damage and on which farmers had to use pesticides in spite of corporate propaganda that genetic engineering means an end to the pesticide era. Cotton bollworms were found to have infested thousands of acres planted with the new variety of cotton in Texas.

Trial Farmers and Mahyco-Monsanto

Unscientific sampling of the farmers and sites: The selection of the farmers for the illegal trials was based on totally unscientific sampling techniques. The company as well the government hurried up for trials without determining the sampl

site for the trials. Most of the selected farmers for the trials were either seed distributors or had long-term association with the company. In this selection process it seems there has been some vested interest of the dealer-farmer in terms of getting favour for the dealership of the GE seeds in future from the company.

Based on prior acquaintances, Mahyco contacted the individual farmers. In all these zones Mahyco used to supply the farmers with new hybrid seeds for initial trials. Based on the performance of these new seeds, farmers patronised Mahyco and established good rapport. Most of the trials were based on this mutual trust which the farmers have developed with Mahyco.

At most of the trial sites, farmers selected were the exemplary farmers who were singled out on the basis of their past performance in the yield of major crop in the previous cropping season. Those farmers were presented with trophies and other awards so as to maintain their faith in the company. For instance, Sri Bassanna at Sindhanur district in Karnataka, was selected for the trial based on performance for best yield in paddy.

All the trial sites were on the main approach road. This has been purposefully done so that the visit of the supervisory staff is easier. These trial plots were not isolated, as is mandatory from the biosafety point of view and were amidst other surrounding fields.

In some of the trial sites, Mahyco's own dealers were given seed to test *Bt* on their fields and for recommendation to other farmers. Mahyco agreed to meet the expenditures incurred on the cultivation of the *Bt*-crop on their fields.

No independent scrutiny of trials: There has been no appointment of independent group comprising of outside scientists/citizens other than company personnel, to closely monitor the data and results generated by the joint venture and the government. This has been done to produce suitable data to get approval of the concerned ministry of the government. At the field level, none of the village/taluk level government organisations have been contacted prior to taking up trials in open fields. The Research Foundation has intervened to ensure public assessment of the trials.

Enticing the farmers: In order to attract other farmers, the company organised 'khestra utsav' to show the crop performance to other villagers from neighbouring villages. This has been the strategy of many companies on market expansion through concentrating upon development of market *per se*, rather than pushing their own particular brand. Farmers are invited to the fields of another exhibiting uncommonly high yields of branded seed. However, during shows organised by the Monsanto-Mahyco, the cost of technology has not been revealed to the farmers which is associated with sale of genetically engineered seeds. Thus, cost of such technology becomes important in the context where farmers have had the options of exchange of saved seeds and purchase of hybrid seeds at much lower price than the *Bt*.

Cost of the *Bt* Technology

Bt technology is not free of cost to the farmers. These farmers have to pay for the non-cotton gene inserted into the cotton genome. The fees that are charged to farmers are related to the benefits or saving made in planting the transgenic cotton varieties. It is generally presumed that *Bt*-cotton if planted would significantly reduce the need for spraying insecticides and accordingly the technology fee has been related to the insecticide use.

Each farmer interested to plant *Bt* variety has to sign an agreement with Monsanto. One of the important conditions of the contract is that the seeds can neither be saved for next year nor passed on to other cotton growers. The company apparently intends to reap technology benefits for years to come by extending the duration of agreement.

It has been observed that the performance of *Bt*-cotton is not always profitable. According to a study by Sutton (1998) it was not profitable to grow *Bt*-cotton in Arkansas during 1997. The study involved two similar fields on the same farm at seven locations for comparing cost of production and net returns from *Bt* verus non-*Bt* cotton varieties. The study noted that the differences between the *Bt* and non-*Bt* fields were in the area of technology fees, cost of insecticides and their application, growth regulators and second harvest costs. In most *Bt* fields, the additional cost of seed, the necessity of using plant growth regulators, the technology fee and the need to make second pick were responsible for higher cost of production. It is very clear through various studies [like Sutton 1998; Bryant et al 1997] that wherever the bollworm pressure is not high, *Bt*-cotton might not be *economically suitable.*

Gibson et al (1997) compared the cost and returns associated with growing *Bt* cotton and non-*Bt* in Mississippi for two years. The study reveals that there was no difference in the total cost of production but better yields were reported in case of *Bt*-cotton. However, *Bt*-cotton required more expenses in the form of fertilisers, fungicide treatments and the technology fees. The Table 12 provides the performance of *Bt* to that of non-*Bt* cotton in Mississippi in 1995-97. It is observed from the table that the amount spent on insect control together with the technology fee exceeds for *Bt*-cotton in all the years and made it more expensive for the farmers. Thus the total cost for *Bt*-crop is on an average 50 per cent more than that of non-*Bt*-crop.

The Andhra Pradesh government initiated steps to prevent the introduction of *Bt* by asking M K Sharma, managing director, Mahyco-Monsanto Biotech (I) to stop the field trials in its seven districts. However, the government has made it clear that if the company still wants to continue with the trials, it will be permitted to carry them out in the research stations of N G Ranga Agricultural Research University.

For the trials, the company has not charged any technology fees. However for commercial sale of the seeds the company is certainly going to impose technology fees. In such situation, there will be tremendous pressure on the farmers and ultimately the very survival of farmers will be threatened. There is absolutely no difference in terms of total returns for *Bt* and non-*Bt* crops of cotton.

Threat to Organic Farmers

With the introduction of genetically modified crops, per acre cost of cultivation will increase with increase in added costs in terms of seed cost, technology fees, and use of chemicals. In the present situation with internal inputs used by organic agriculture, the added costs are almost negligible except for the cost of seeds. Most of the farmers save their seeds and use them for cultivating in the following season. Other inputs are also provided on

Table 12: Performance of *Bt* vs Non-*Bt* Cotton in Mississippi 1995-1997

		1995		1996		1997	
		Bt	Non-*Bt*	*Bt*	Non-*Bt*	*Bt*	Non-*Bt*
Lint yield	kg/ha	1086	983	1002	950	1103	1009
Insect control	US$/ha	176	232	157	144	209	204
Bollgard fee	US$/ha	204		61		133	
Total cost	US$/ha	380	232	218	144	342	204
Total return	US$/ha	1176	1176	1218	1218	1239	1239

Source: ICAC, June 1998.

costs will appear and the farmer will get into serious financial troubles.

The additional burden on the farmer switching over to *Bt*-cotton from conventional variety is nearly nine times more in terms of seed cost, technology fee of nearly US$ 80 per hectare and more spending on pesticides and chemicals. Most calculations used by Monsanto compare the costs incurred by the farmers of developed countries. The estimates for Indian farmers are totally different and have profound impact when the comparisons are made in Indian context between cultivation with genetically engineered seeds and cultivation under organic conditions.

Socio-economic costs of GE seeds for Indian farmers: The genetic engineering option is projected as leading to lower chemical use and hence economic benefits by comparing it to chemical intensive, large-scale industrial monocultures. GE is not compared to ecological organic agriculture which is perhaps the only real alternative. However the comparison of genetically engineered crops that should be made is not with chemical intensive agriculture but with ecological regenerative agriculture. In addition to the increased cost of chemicals, the shift from ecological agriculture to genetic engineering also leads to increased costs of seed, including technology costs, which are never mentioned when the economic benefits of transgenic crops are assessed. Field survey indicates per acre seed cost of Rs 550, technology cost of Rs 2,000 and pesticide cost of Rs 7,500. Ecological farming has no expenditure in terms of seed cost, technology fee imposed on the seed and the cost of pesticide. Once there is shift in the farming system, from ecological to that of genetically engineered farming, the farmer has to bear Rs 10,500 per acre additional cost apart from other input costs such as labour costs.

As per 1997-98 figures the total area under cotton in India is 214 lakh acres. Therefore, if whole of the cropping shifts to genetically engineered cotton then nearly Rs 16,050 crore on pesticides and Rs 22,470 crore on entire cotton cultivation will be the added costs compared to the ecological option of internal input agriculture. The false comparison with chemical/industrial agriculture rather than with ecological organic agriculture is used to create the illusion of sustainability of genetically engineered crops.

Inadequacies of Biosafety Regulations

The clearance of Monsanto's trials with toxic plants without the democratic consent of concerned governments, from state to local level and democratic participation of the public in biosafety decisions reveals the loopholes and inadequacies in the present biosafety regulations both from the democratic perspective and the ecological perspective. The trial produce has been freely marketed without adhering to any containment process.

The clearance for trials of genetically engineered crops and their release needs to be given not just by the central government but by all levels of government, from the state to the local level. Further, before any clearance is granted for trials of a particular genetically engineered crop the application for trials should be notified to the public as part of the citizen's right to know. Public hearings need to be organised in the specific villages and districts and states where the trials and introductions are planned.

The scientific framework for assessing the ecological impact of genetically engineered crops on biosafety, ecosystem health and public health also needs to be upgraded for dealing with the impact of field trials and deliberate releases under diverse ecological contexts existing in India.

If Monsanto and the Indian government fail to fulfil these ecological and democratic criteria for field trials of genetically engineered crops, we will have further evidence that the promotion of genetic engineering by corporations like Monsanto can only be based on dictatorial, distorted and coercive methods. In such context, genetic engineering in agriculture must necessarily be anti-nature and anti-people.

VI
Need for Biosafety Regulations

The Monsanto trials with genetically engineered crops have clearly shown that there are many gaps and many weaknesses in the regulation of genetically engineered (GE) crops and there is an urgent need for strengthening the biosafety regulations in India.

Regulatory Anarchy in Genetic Engineering

The trials have shown that under the present regulations it is possible for a company to perform GE trials secretly without prior informed consent of either the state government or the local community or gram sabha. The agriculture minister of Karnataka, Byre Gowda, learnt about the trials in his state through the newspapers. The agriculture minister of Andhra Pradesh said that the department of biotechnology had given the clearance for trials to Mahyco without informing the state government. The fact that it was Mahyco which got the clearance but Monsanto which carried out the trials shows how much anarchy exists in approval for GE experiments and commercialisation.

The approval of trials should include prior informed consent of state governments or local communities or gram sabhas. The states should be included because agriculture is a state subject. People should be included because decentralised democracy and panchayati raj are commitments which have been made through the Constitution. The present regulations have no respect for the decentralised democracy required by panchayati raj. Nor do they have any room for public participation in decisions about genetic engineering either at the experimental stage or at the commercialisation stage. These lacunae must be filled to ensure democratic participation and decision-making.

The anarchy, chaos and confusion in the regulatory system needs to be stopped. This requires that all trials are stopped till biosafety regulation is made strong, coherent, scientifically sound and transparent through public participation.

Public Monitoring of Private Corporations

The Monsanto trials have also revealed that the corporations pushing genetically engineered crops are simultaneously the judge and accused.

When Trade Related Intellectual Property Rights (TRIPs) Agreement of WTO was signed, a Monsanto representative had claimed that Monsanto with other corporations had shaped and designed the agreement. As they stated, "We were the physician, the diagnostician, the patient – all in one". In the area of biosafety too, Monsanto seems to be functioning as the diagnostician, physician and patient – all in one.

They are the source of information on biosafety, they carry out the trials without government and public monitoring and they themselves declare their activities as safe and causing no risks. The information on risks and status of the GMO are provided to GEAC by the company, not the government, ensuring that biosafety information is biased, not neutral.

The Andhra Pradesh government's order to Mahyco-Monsanto to stop trials and to only carry them out in the research stations of N G Ranga Agricultural University under the direct supervision of government scientists is a precedence that should be applied nationwide. Genuine biosafety requires that experiments with GMOs prior to commercialisation be carried out in the public system and not by the private firm

that stands to gain through commercialisation and has nothing to lose if there is 'genetic pollution' and risks posed to the environment and public health.

The public system science and technology capacity in India is high. Our scientists have wider knowledge of plants and ecosystems than Monsanto's scientists or narrowly trained biotechnologists whose expertise is restricted to petridishes and does not cover ecological and ecosystem expertise. Public scientists with ecological expertise will therefore do a much more comprehensive job of assessing the ecological risks of transgenic crops than corporate scientists with biotechnology expertise. This will also ensure better monitoring and control over the trials.

In addition to experiments being carried out in public system institutes, public participation in the monitoring of trials is also essential.

'Substantial Equivalence'

The entire genetic engineering guidelines is based on the false assumption that GMOs behave like their naturally occurring counterparts. The guidelines are also based on the totally incorrect assumption that "G E organisms have greater predictability compared to species evolved by traditional techniques". Neither of these assumptions is true. GMOs do not behave like their naturally occurring counterparts and the behaviour of GMOs is highly unpredictable and unstable.

Naturally occurring *Klepsiella planticola* does not kill plants, but as research at the University of Oregon has shown, the genetically engineered Klepsiella was lethal to crops [Report of the Independent Group 1996].

The naturally occurring *Bacillus thuringiensis* (*Bt*) has not contributed to the evolution of resistance in pests, but the genetically engineered *Bt*-crops create rapid resistance evolution because the *Bt*. toxin is expressed in *every* cell of the plant, *all* the time [Shiva 1998]. The assumption of 'substantial equivalence' does not hold, and biosafety regulation is undermined because of this false assumption of substantial equivalence.

The assumption of 'predictability' is also totally false. While genetic engineering makes the *identification* of the gene to be transferred into another organism more predictable, the ecological behaviour of the transferred gene in the host genome is totally unpredictable. A transgenic yeast engineered for increased rate of fermentation with multiple copies of one of its own genes, resulted in the accumulation of the metabolite, mythyl-glyoxal, at toxic mutagenic levels. Intransgenic tobacco, 64 to 92 per cent of the first generation of transgenic plants become unstable. Petunias do not have unstable colouring, but genetically engineered petunias changed their colour unpredictability due to 'gene silencing' [Report of Independent Group of Scientific and Legal Experts on Biosafety 1996].

Monsanto's Round up Ready Cotton engineered to resist Monsanto's herbicide Round up, had its bolls falling off, an instability which does not occur in the naturally occurring cotton and was induced unpredictability due to genetic engineering of herbicide resistance. Monsanto has been sued for millions of dollars because of the losses incurred by farmers.

GMOs do *not* have greater predictability compared to species evolved through traditional techniques. Since the very assumptions underlying our genetic engineering guidelines are false, we need to evolve new biosafety regulations on the basis of honest and good science, after assessing all the independent scientific evidence available across the world. Guidelines based on anti-democratic structures and unscientific assumptions provide no safeguards for the public or the environment. Strong biosafety regulation with strong public participation is both a democratic and an ecological imperative. The public and the government needs to act immediately to prevent private corporations from unleashing irreversible genetic pollution through the release of G E organisms in the agriculture and the environment.

– A five-year moratorium should be introduced on all commercialisation of genetically engineered crops both through imports and through seed production and distribution in India while full and adequate ecological and regulatory frameworks for assessing the ecological impact of genetically engineered crops and public participation is evolved.

– The regulatory framework for genetic engineering is not just inadequate in India. It is inadequate worldwide. In the US, trials for such crops do not have any ecological dimensions. They only assess agronomic performance. The data from the hundreds of US trials is basically 'non-data from non-trials' in the ecological context.

– The large-scale seed failure pushing farmers to suicides create the need for strict certification and liability for the commercial seed sector. This issue of liability becomes urgent in the context of genetically engineered seeds which in addition to normal risks of seed failure have the potential of leading to genetic pollution and high ecological risks.

– The farmers' seed supply and direct exchange network must be strengthened through community control and local participation. Farmer's seed supply system must be treated totally distinct from the commercial seed supply system. While the commercial private seed supply system needs strong state regulation, farmer seed supply should function free of state interference with strong community control and public participation.

Biotechnology and genetic engineering in agriculture is evolving in a total regulatory vacuum as it is clear from the US situation. Monsanto itself states, "Monsanto should not have to vouchsafe the safety of biotech food"; "Our interest is in selling as much of it as possible. Assuring its safety is the FDA's job". FDA does not look at the safety of *Bt*-crops since such crops are treated as a pesticide. EPA which is supposed to look at safety of pesticides treats genetically engineered crops which produce pesticide as conventional crops and hence does not look at the safety either. There is, therefore, no agency guaranteeing the safety of genetically engineered crops. It is to fill this policy vacuum for environmental safeguards that citizens worldwide are calling for a five-year moratorium on genetic engineering in agriculture.

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National Human Development Initiative

Education in the Union Budget

Jandhyala B G Tilak

The finance minister in his budget speech stated that "high priority is being accorded to problem of the human resource development in the Ninth Plan". One of the important components of the 'National Human Development Initiative' announced in the Union Budget is education. Education is also recognised as an important item of 'basic human development needs' and is one of the items of the prime minister's special action plan. Do the programmes and financial resource allocations proposed in the Union Budget, and the Ninth Plan match these high sentiments expressed in favour of education? Answers to this question is attempted here examining the Draft Ninth Five-Year Plan 1997-2002, the Economic Survey 1998-99, *and the* Budget 1999-2000.

THE budget is neither a policy paper, nor is it a plan document. It is only a budget document. Plan is an instrument of the government to translate the policy into a plan of action; and budget represents financial commitment of the government to put the plan of action on the field. In this sense, one can expect a vision in the policy paper and in the perspective plan, and to some extent in the five-year plans, but one may not expect a vision, not to speak of a great or a radical vision, to flow from an annual budget speech of the finance minister and the related budget documents. At the same time budget is an important document, as it reflects the actual priorities, including changing priorities, of the government in terms of financial allocations. Besides, the budget for 1999-2000 assumes significance as it raises expectation of the people for this forms the first budget of the present union government after the Ninth Five-Year Plan was approved. That the plan is in only a draft form that too after two years of the plan period are over, is a different issue. Further, as this is the budget that takes the nation into the next century and the millennium, whatever it may mean, people may rightly have high expectations on the budget.

One of the important initiatives proposed in the Union Budget 1999-2000 'to empower vulnerable groups in society' is the 'National Human Development Initiative' (NHDI) that includes making available food, health care, education, employment and shelter to the entire population of this country within a decade. The finance minister has also stated in the budget speech that the NHDI "will go a long way in empowering the weakest sections of the population and improving the quality of rural life". This short article is concerned with one component of the NHDI, viz, education. The government recognises that education is an important item of 'basic human development needs'. It is also promised in the budget that "high priority is being accorded to the problem of human resource development in the Ninth Plan" (*Expenditure Budget*, vol I, p 43). Education is also identified as an item of the prime minister's special action plan (SAP) (an acronym that unfortunately refers to a different set of policies) in the Ninth Five-Year Plan. Do the programmes suggested in the Ninth Five-Year Plan and in the Budget and the allocation of resources in the Union Budget 1999-2000 match these hymns sung in praise of education? What is the place accorded education in the Union Budget? What are the education priorities of the government reflected in the budgetary allocations? And what are the programmes that the government intends to initiate in this context. Answer to these questions is briefly attempted here examining the three major documents of the government that are made available to the public within a gap of few days during the last two-three weeks, viz, the *Draft Ninth Five-Year Plan 1997-2002*, the *Economic Survey 1998-99*, and the *Budget 1999-2000*.

The Context

First, the context. The *Economic Survey* reports on the rapid quantitative achievements made in literacy, number of primary schools, enrolments, improvement in dropout, etc, during the post-independence period, which is indeed impressive, as there has been a quantitative explosion in numbers in the five decades of independence. But the *Survey* refuses to note that there are yet a large number of children who should be in the schools, but are not. According to the 42nd round of the National Sample Survey [NSSO 1991], there were about 70 million children out of school in the country in 1986-87. While we claim to have made rapid progress in enrolment of children into schools, quick calculations based on the 52nd round of the National Sample Survey conducted in 1995-96 suggest to the contrary. The number of out of school children has indeed grown significantly during the decade. It could be as high as 90 million in 1995-96 (Table 1). Had this growth continued, which is most likely, it means that India plans to enter the 'knowledge based society' of the 21st century with about 100 million children who perhaps have never been to any school. Unfortunately, neither in the Five-Year Plan nor in the annual budget, the magnitude of the problem is recognised, and any urgency has been shown to check the growth of out of school children in the country, though at the same time it is stated in the budget speech that "access to primary education is critical for empowering poor".

Secondly, the Five-Year Plan and also the Budget seem to have paid no attention at all to another important issue, viz,

Table 1. Out of School Children in India, 1995-96

Age Group	Population 1996 (Million)	Age-Specific Attendance Rate (Per Cent)	Children in Schools (Million)	Out of School Children (Million)
6-11	144.59	69	79.07	65.52
11-14	86.16	72	62 04	24.12
6-14	230 75	61	141.11	89.64

Note. Age specific attendance refers to children of the given age group enrolled in any level of education

Source: NSSO (1998) for attendance rate; and Registrar General of India (1996) for population.

requirement of financial resources for mak-
ing elementary education a fundamental right. Finding resources to finance this fundamental right is an urgent task as well as, contrary to popular fears, is an entirely achievable task. On the basis of the recommendation of the high powered Saikia Committee [Government of India 1997], a group of experts was constituted to estimate the requirement of financial resources for making elementary education a fundamental right in the Constitution. The group submitted its report recently and the *Report* [Government of India 1999] was available to the government just in time for the preparation of the Five-Year Plan and the annual budget; but it could not receive any attention of the government. Based on a detailed estimation of costs of each item/programme, the group of experts has estimated that universalisation of elementary education requires additionally Rs 136.8 thousand crore during the next 10 years. While this figure may seem to be awesome, certainly being much higher than the Rs 40,000 crore for a five-year period, estimated by the Saikia Committee, it needs no special skills to understand that additionally it means only Rs 14,000 crore a year on average, or additionally 0.7 per cent of GDP (if the GDP grows at a modest rate of growth of 5 per cent per annum). This should be easily possible. According to the committee's estimates, this would provide for a reasonably good pupil-teacher ratio of 1:30, improved physical access to schools, provision of instructional material, other necessary incentives, and on the whole a tolerable minimum level of quality of education, etc, to every child in India by the end of the first decade of the 21st century. The expert group also felt that if the government is serious about allocation of 6 per cent of GDP to education, the task becomes much more easy: 6 per cent of GDP would not only provide the needed resources for universalisation of elementary education, but it also allows provision of additional resources for growth of secondary and higher education. Further, the group showed that increasing of total allocation to education to reach 6 per cent of GDP is not at all difficult, given (a) the economy is likely to grow at a rate of growth of above 5 per cent, (b) the likely increase of tax/GDP ratio from 16 per cent to 18 per cent, and (c) the likely increase of the non-tax-revenue/GDP ratio from about 6 per cent to 5 per cent during the next 10 years. The expert group also observed that as the states might find it difficult to provide additional resources for elementary education, the centre would have to provide for a lot of the additional resources as most of it would come as a Plan expenditure". The group also had attempted to clear two absurd propositions that are in circulation: (a) that we cannot have universalisation of elementary education, because it is too costly; and (b) that the only way to have it to divert funds to it from higher education.[1]

While the *Report* and the estimates therein do not seem to have received the attention of the government, the issue of making elementary education a fundamental right and thereby a justiciable right through the constitutional amendment cannot be brushed aside, as (a) the 83rd amendment of the Constitution is pending before the parliament for approval, this having been introduced long ago in 1997 in Rajya Sabha, and more importantly (b) the judgments of the Supreme Court (1992, 1993) already made elementary education a fundamental right. As Tilak (1999) argued, "there is no need to wait on the part of the government or society at large to initiate any meaningful action towards providing this fundamental right to everyone". The government of India and the governments in India seem to prefer waiting for the uncertain adoption of the bill to initiating any immediate action. The Union Budget (1998-99) made an allocation of Rs 35 crore as 'special assistance' to states and union territories for implementing elementary education as a fundamental right. The revised estimate is only Rs 1 crore. Now a token amount of Rs 5 crore is allocated in the 1999-2000 Budget, stating that the *special scheme* "has not come into operation as the bill is yet to be considered by parliament". No efforts are being made by the states in this direction; and no special efforts have been made by the union government either. The Ninth Five-Year Plan and the annual budget do not propose any specific programme as such. It is obvious that the bill seeking the 83rd amendment is not a priority item on the national agenda.

Education Guarantee Scheme

By identifying education as an important item of the NHDI, the government of India expresses its intention of according a high priority to education. But that priority is not clearly explicit either in the programmes identified in the Five-Year Plan, or in the annual budget or more importantly in the budgetary allocations. A major important initiative that the government proposed in the Budget is the 'Education Guarantee Scheme' (EGS) at the national level. Aimed at "providing an opportunity to the rural poor, especially those belonging to the scheduled castes, scheduled tribes and other backward classes to secure education for their children", drawing from the experience of EGS of the government of Madhya Pradesh [Gopalakrishnan and Sharma 1998] a national programme of EGS is being proposed by the union government. The scheme is meant for those areas where no school currently exists within a radius of 1 km. So these areas could be the areas where the poorest of the poor live. By adopting distance norms (the school could be located within a walking distance - being replaced by radius - of 1 km), norms regarding size of population of the habitation (minimum size required is 300), etc in educational planning until now, the educational needs of the population in these areas were neglected, stating that it is 'unviable' to open a school in such areas. So payment of attention to these areas now is important. But the EGS has a major internal contradiction.[2] The EGS envisages the poor local community to (a) come forward, expressing demand for a school, (b) specifically provide the premises required for a school, (c) provide for a local part-time teacher, and (d) maintain the school at least for two years with the gram panchayat mobilising contributions in cash and kind from the local community. The role of the government – the centre and the state – is confined to providing teaching material and other assistance, and to 'support' the important initiative. After the poor village community maintains the school 'successfully' for two years in an area where otherwise the government feels that a school is an unviable proposition, perhaps the government would come forward with more assistance. The logic behind the national EGS to involve local community in education may seem sound; but there is, thus a contradiction in expecting the local community in the poor, small and scattered habitations to do all the one listed above. In a normal area (may be urban), where already schools exist, a new school if required, may be started with the full assistance by the government or local body, or be established by the government itself; but in the poorest of the poor regions, where people were deprived of a minimum schooling facility for several years (perhaps in addition to deprivation of all other basic needs), people are required to pay in cash and kind and initiate a schooling activity on their own!

Moreover, with the criterion of maintenance for two years, in effect, the govern

ment may not have to spend any significant amounts in starting 1.8 lakh promised primary schools during the Ninth Five-Year Plan period, as already more than two years of the plan period are over. Accordingly it is not surprising to note that there is no specific allocation in the current budget for EGS separately.[3]

Unfortunately, the *Economic Survey 1998-99* that is presented to the parliament a few days before the presentation of the Union Budget, also does not indicate the nature of 'high priority' that is likely to be accorded to education. In the 170 pages of the *Survey* (excluding the statistical appendix), a little more than a page is devoted to education; and education is also confined to 'Primary Education and Literacy'. Not even an oblique reference could be found to secondary or higher education, not to speak of higher professional/technical education. This trend – of confining the *Economic Survey* and other major official documents to primary education and literacy – could be noted in the last few years, making one to fear that we may gradually end up with only primary education or literacy. Sometimes the distinction between the two – primary education and literacy was also found missing.

In addition to referring to many ongoing programmes, the *Economic Survey* makes reference, drawing from the *National Agenda of Governance* to two policy relevant statements that are somewhat inconsistent with the long held official position. What are they?

Universal Primary or Elementary Education ?

The first specific reference in the *Economic Survey* is to free and compulsory primary education. "Education for All – Free and compulsory education up to the fifth standard and total eradication of illiteracy" (p 150). The Article 45 of the *Constitution of India* states that "the state shall endeavour to provide, within a period of 10 years from the commencement of this Constitution, for free and compulsory education for all children until they complete the age of 14 years" Accordingly, every Five-Year Plan, the *National Policy on Education 1968* and the *National Policy on Education 1986*, clearly stated that free and compulsory education refers to eight years of elementary education and the relevant age group of the children was 6-14. The Supreme Court of India in its judgment (1993) also observed: "The citizens of the country have a fundamental right to education...every child/citizen of this country has a right to free education until he completes the age of 14 years..." Thus the constitutional directive of free and compulsory education has been interpreted all these years so as to refer to eight years of elementary education – five years of primary education and three years of upper primary. But the *Economic Survey* refers to education up to fifth standard only.[4] In fact, based on international evidence, some [e g, Tilak 1998] argue that it is desirable to extend at least gradually the duration of the cycle to the whole school education, i e, 12 years of schooling for the children of the age group 6-18. But the *National Agenda of Governance*, the draft Ninth *Five-Year Plan* (vol II, p 101) and the *Economic Survey* (p 150) – all refer to primary education only and further not to give any illusion that by primary education actually elementary education is meant, all clearly say, "up to fifth standard" only. Also in the discussion under 'Primary/Elementary Education' in the draft Ninth *Five-Year Plan* (vol II, pp 115-16) the whole discussion is rather exclusively on primary education: upper primary education does not figure at all, except stating that "greater emphasis will naturally have to be laid on achieving UPE at the lower primary stage, in the first phase" (p 117). Such an approach may lead, paradoxically, as the nation gradually progresses, to minimisation of minimum basic needs of human development in India.

Share of Education in National Income: Six Per Cent of GNP?

The second issue relates to financing of education. The *Economic Survey* states: "Financing of education – increase in government and non-government spending on education, and bringing this up to 6 per cent GDP level" (p 150). This is also not altogether new, though few expected that it would find a place finally in the *Economic Survey* and in the draft Ninth Five-Year Plan. The *National Agenda for Governance* has promised to "formulate and implement plans to gradually increase the governmental *and non-governmental* spending on education up to 6 per cent of the GDP" (p 5; emphasis added). The *Economic Survey* (p 150) repeats this goal verbatim; so does the draft Ninth *Five-Year Pla* (vol II, p 101). This is not in conformity with the widely accepted view and the resolve made by the government of India repeatedly earlier that the *government expenditure on education* would be raised to the level of 6 per cent of GNP or GDP.

The origin of this resolution is the recommendation of the Education (Kothari) Commission. The Education Commission (1966) under the chairmanship of D S Kothari had recommended that the public expenditure on education in India should be increased to at least 6 per cent of national income by 1986. The recommendation was based, *inter alia*, on (a) the projected requirements of education sector in India, and (b) on international comparisons. This goal was reiterated in the *National Policy on Education 1968*. Since the goal could not be achieved, the goal was again reiterated in the *National Policy on Education 1986* (including the revised Policy in 1992). The review committee on National Policy on Education (Acharya Ramamurthy Committee), and the several reports of the CABE have repeatedly made it clear that 6 per cent of national income should be devoted to education from the government exchequer – by the central and state governments. The then prime minister of India also promised in 1993 from the ramparts of the Red Fort to the same extent.

When some doubts were expressed on this clause in the *National Policy on Education 1986*, Anand Sarup (1988), former education secretary, who was involved in the formulation of the *National Policy on Education 1986* made it abundantly clear. Sarup (1988:253) observed: "Since it is public policy on education that is the crucial determinant of available educational places and opportunities in our country, *it (6 per cent) is the Centre and State expenditure on education* that is used for policy planning and implementation. This includes both plan and non-plan outlays" (emphasis added).

Secondly, the Education Commission observed that "economically advanced countries like Japan, US and USSR were spending more than 6 per cent of their GNP on education. These countries spent no more than a small fraction of their GNP on education at the beginning of the century. Further, these countries might be spending about 10 per cent of GNP by 1986, and in fact more than 10 per cent, if comprehensive disarmament takes place. The gap between India and other rich countries needs to be reduced" and accordingly recommended that India should allocate 6 per cent of national income to education.

Since international comparisons formed an important basis for the recommendation of the Kothari Commission, it is important to note that most international statistics[5] and national level statistics on education expenditures in other countries refer to public expenditures only. These statistics rarely include private expenditures on education.[6]

One can also safely conclude that the recommendations of the Delors Commission [International Commission on Education for the Twenty-first Century 1996],[7] UNDP and other intentional organisations are at least partly influenced by the policy goal of the government of India that it would allocate 6 per cent of national income from the public exchequer.

Thus inclusion of non-governmental spending on education for the purpose of reaching the goal of 6 per cent of GDP (and to show that we have over or nearly achieved) is thus against the letter and spirit of the resolution of the government of India (1968) and later official papers.[8] It may also be noted that when the Planning Commission made earlier during the Janata government period a similar attempt formally or informally in 1988 [Kolhatkar 1988], reinterpreting the 6 per cent to be consisting of public and private expenditures, it backfired, with an uproar in the parliament and finally the government sticking to the earlier position of allocating 6 per cent from the government sources.[9]

Of course, there is no sanctity of the 6 per cent norm, as actual requirements of financial (and physical) resources for education have to be periodically worked out, as has been stated in many policy documents. According to the recent estimates [Tilak 1994], the government expenditure on education has to be raised to above 8 per cent of national income to fulfil the modest goals of the education system. Instead of planning to raise the level of public expenditure from the current level of 3.7 per cent of GDP[10] to at least 6 per cent, if not higher, the government seems to be arguing that the goal has already been achieved, as it is argued that the 6 per cent should compose of not only government expenditure, but also household and private sector, including household expenditures on education. This is attempted in the *Economic Survey* as well.

Allocation of Financial Resources

Now a few specific issues on allocation of resources to education. First, the draft Ninth Plan does not give any details regarding allocation of resources to education, not to speak of allocation within education to various sub-sectors. The only financial allocation referred to in the draft *Ninth Five-Year Plan* (vol I, p 183) is under the special action plan of the prime minister: Rs 20.4 thousand crore is allocated, as a part of the central outlay. For the centre and the states/union territories as a whole, allocation to social services is made as a lump sum, Rs 1,82,000 crore.[11]

In the absence of any more details on the allocation of resources to education in the Ninth Plan, let us briefly look at the allocations made in current year's annual budget of the union government (Table 2). In the last year's and also in the current year's annual budgets there has been a reasonable, though not a very significant,

Table 3 Union Government Budget Expenditure on Education, Sports and Youth Affairs (Revenue + Capital)

	Expenditure (Rs in Crore)			Percentage of Total Government Expenditure		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total
1990-91	965	721	1686	3.40	0.94	1.60
1991-92	993	762	1755	3.21	0.95	1.58
1992-93	1104	774	1878	3.01	0.90	1.53
1993-94	1440	938	2378	3.30	0.96	1.68
1994-95	1819	980	2799	3.84	0.86	1.74
1995-96	2409	1221	3630	5.19	0.93	2.04
1996-97	2701	1287	3988	5.05	0.87	1.98
1997-98	3473	1510	4983	5.88	0.87	2.15
1998-99B	3385	1802	5187	4.70	0.92	1.94
1988-99R	4345	2388	6733	6.36	1.12	2.39
1999-2000B	5053	2085	7138	6.56	1.01	2.51

Note. R Revised estimate; B Budget estimate

Source *Expenditure Budget 1999-2000*, vol I, pp 84-85

Table 2. Allocation of Resources to Selected Programmes of Education in the Union Budget

(Rs in crore

	1998-99R			1999-2000B			Percentage increase		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total
Grand Total	4044.2	2352.6	6396.8	4699.0	3237.7	7936.7	16.2	37.6	24.1
Elementary education	2741.3	1.8	2743.1	3035.1	1.8	3037.0	10.7	4.0	10.7
Operation blackboard	304.0		304.0	400.0		400.0	31.6		31.6
Non-formal education	160.0		160.0	350.0		350.0	118.8		118.8
DPEP	550.0		550.0	750.0		750.0	36.4		36.4
Nutritional support	1400.2		1400.2	1031.1		1031.1	-26.4		-26.4
Special assistance to make elementary education a fundamental right	1.0		1.0	5.0		5.0	400.0		400.0
Free education for girls	100.0		100.0	160.0		160.0	60.0		60.0
Secondary education	432.8	560.4	993.2	558.2	578.5	1136.7	29.0	3.2	14.5
Kendriya vidyalayas	88.0	435.0	523.0	90.0	454.8	544.8	2.2	4.6	4.2
Navodaya vidyalayas	291.5	85.0	376.5	340.7	91.0	431.7	16.9	7.0	14.7
Vocational education	10.0		10.0	10.5		10.5	5.0		5.0
Computers in education	10.0		10.0	10.0		10.0	0.0		0.0
Educational technology	15.0		15.0	18.0		18.0	20.0		20.0
University/higher education	392.5	1210.0	1602.6	445.9	1974.0	2420.0	13.6	63.1	51.0
Adult education	77.1	3.2	80.2	110.0	3.4	113.4	42.8	8.2	41.4
Total general education	3699.7	1810.9	5510.6	4246.3	2564.7	6811.0	14.8	41.6	23.6
Total technical education	344.0	523.04	867.1	452.2	653.7	1105.9	31.4	25.0	27.5
IITs	75.0	299.76	374.8	110.2	315.4	425.6	46.9	5.2	13.6
RECs	38.0	70.0	108.0	45	75	120.0	18.4	7.1	11.1
IISc	16.0	58.0	74.0	16.0	62.0	78.0	0.0	6.9	5.4

Note: R: Revised estimate; B: Budget estimate.

Source: *Expenditure Budget 1999-2000*, vol II, pp 107-10

increase in the allocation of resources to education. In the 1999-2000 budget allocation there was a significant increase in the allocation to education – both plan and non-plan, over the preceding year's revised estimates – all by about Rs 1,500 crore, though the revised estimates for 1998-99 are much less than the budgetary outlays for the same year. But the percentage of increase in the plan expenditure is only about half the increase in non-plan expenditure. Compared to the increase between 1997-98 and 1998-99, the increase in 1999-2000 over 1998-99 revised estimates, is rather modest. E g, the total allocation to education in 1997-98 was Rs 4,983 crore, which increased to Rs 6,733 crore in 1998-99 (Table 3).[12] More importantly, the relative share of plan expenditure on education increased from 5.9 per cent in 1997-98 to 6.4 per cent in 1998-99. The latter figure could increase to 6.6 per cent only in 1999-2000

The general need for tightening of the budget, perhaps resulted in reduction in plan expenditure on general education, as non-plan expenditure could not be reduced; in fact, the non-plan expenditure on general education was Rs 500 crore higher as per the revised estimates compared to the budget estimates in 1998-99. However, in case of higher education, there has been big shortfall by about Rs 600 in non-plan expenditure. This seems to have been done mainly by deferring the improvement in salary scale of university/college teachers.

On the whole, the revised estimates for 1998-99 are less by Rs 200 crore in plan expenditure on education, and Rs 450 crore in non-plan expenditure, compared to the budget allocations for the same year. It would be useful to find out the reasons for shortfall in the expenditures, i e, budget outlays *minus* the revised estimates. Though there has been a shortfall in case of both overall plan and non-plan expenditure on education, and the shortfall is higher in case of non-plan expenditure, it is also important to note that a larger number of plan programmes suffered severely in terms of shortfall in budget expenditures. They include non-formal education, district primary education programme (DPEP), vocational education, adult education and technical education (regional engineering colleges and community polytechnics) (Table 4).

Intra-sectoral allocation of budgetary resources, i e, by different sectors and by different items within education (Table 3) reveals certain important dimensions of changing priorities of the government. The growth in plan outlays for elementary education is important, but the increase is very modest. Important items of the budget for elementary education include operation blackboard, non-formal education, free education for girls, midday meals and the DPEP. There is an increase in the total outlay for elementary education to the extent of just Rs 300 crore in the current year, over the preceding year's revised estimates. It is interesting to note that at the same time, there is a decline in the outlay for midday meals by as much as Rs 400 crore.

A substantial part of the increase in the outlay for elementary education – to the extent of Rs 220 crore – in the budget for 1999-2000 compared to the revised estimates for 1998-99, is also accounted by external aid. Among the several externally-aided projects, DPEP is the most important one in terms of the amount of money involved. The contribution of the DPEP amounts to Rs 750 crore in the current year's budget. Other externally-aided projects include Mahila Samakhya (funded by Dutch government) and Shiksha Karmi and Lok Jumbish (both funded by SIDA). In all, externally-aided projects amounted to Rs 827 crore in 1999-2000 (Table 5). It forms 27 per cent of total central plan outlay for elementary education. The increase in the contributions of the externally-aided projects is by 36 per cent

TABLE 5. EXTERNALLY-AIDED PROJECTS IN THE UNION BUDGET PLAN ALLOCATIONS

(Rs in crore)

	1998-99B	1998-99R	1999-2000B	Percentage Increase over the Revised Estimate
Shiksha Karmi	16 2	16.2	19 3	19 2
Mahila Samakhya	7.5	5 5	7 5	36.4
Lok Jumbish	37.5	37 5	50 3	34.0
DPEP	664 0	548 3	750 0	36 4
Total	725 2	607.5	827 1	36.1

Note R: Revised estimate; B. Budget estimate.
Source. Expenditure Budget 1999-2000, vol II, p 107.

TABLE 4 SHORTFALL IN THE EXPENDITURE ON SELECTED AREAS OF EDUCATION IN THE UNION BUDGET, 1998-99

(Rs in crore)

	Plan Expenditure			Non-Plan Expenditure			Total (Plan+Non-Plan)		
	1998-99B	1998-99R	Shortfall	1998-99B	1998-99R	Shortfall	1998-99B	1998-99R	Shortfall
Grand total	4244 2	4044 2	4 7	2802 6	2352.6	16.1	7046.8	6396 8	9.2
Elementary education	2778.5	2741 3	1 3	1.5	1 8	16 7	2780 0	2743 1	1.3
Operation blackboard	304 0	304 0	0.0				304 0	304 0	0 0
Non-formal education	309 2	160.0	48 3				309 2	160 0	48 3
Nutritional support	1092.2	1400 2	28 2				1092.2	1400.2	28.2
DPEP	666 0	550 0	17 4				666.0	550 0	17 4
Secondary education	464.5	432 8	6.8	458.4	560.4	22.3	922 9	993.2	7.6
Kendriya vidyalayas	88 0	88.0	0 0	356.0	435.0	22.2	444.0	523.0	17.8
Navodaya vidyalayas	286 0	291 5	1.9	76 2	85.0	11 6	362.2	376.5	4.0
Vocational education	10.0	6.6	33.8				10 0	6 6	33.8
Adult education	94 0	77 1	18.0	3.4	3 2	6 5	97.4	80.2	17.6
University/Higher education	412 8	392 5	4.9	1821 8	1210.0	33 6	2234.5	1602.6	28.3
UGC	323.1	330 4	2 2	847.0	1009.0	19.1	1170.1	1339 4	14.5
Technical education	415.0	344.0	17 1	463.0	523.0	13.0	878.0	867 1	1.2
IITs	75 0	75.0	0.0	235.8	299 8	27.1	310.8	374.8	20.6
RECs	41 0	38 0	7 3	59.6	70.0	17.4	100.6	108.0	7.4
Community polytechnics	68 0	15.9	76.6	1.8	1.8	0.0	69.8	17.7	74 7

Note Shortfall: Revised estimate minus budget estimate (per cent) R: Revised estimate; B: Budget estimate.
Source Expenditure Budget 1999 2000, vol I, pp 107-10

between the revised estimates of the last year and the current year's budget estimates This may be compared to the overall increase in the expenditure on elementary education of only 10 7 per cent All this may lead many to warn that the growth in public expenditure on elementary education is largely 'borrowed growth'

In case of secondary education 85 per cent of the budget outlays are accounted by Kendriya vidyalayas and Navodaya vidyalayas All other programmes including vocational education, education technology and computers in schools receive petty amounts The programme of vocational education aims at diverting 25 per cent of the students at +2 level to vocational studies but currently less than 5 per cent of the students opt for these courses Many believe that the programme did not take off due to, *inter alia* scant attention paid including financial resources allocated to vocational education The goals the programme and the persistent neglect continue

Generally and also constitutionally the union government is expected to take care more of higher education and less of school education But in the recent years the union government has been increasingly concentrating on school education particularly elementary education through a variety of centrally sponsored schemes In the current annual budget 65 per cent of the total plan budget outlay for education is allocated to elementary education and less than 10 per cent for higher education There is an impressive increase in the budget allocation for higher education but the substantial part of the increase is in non plan expenditure which might have become necessary with the revision of pay scales of university teachers and other staff

Now let us note priorities given to a few important specific programmes The mid day meals programme launched in 1995 is to gradually expand to cover all children in primary classes in all government and local body schools The number of students benefiting from the programme was estimated to be 9 75 crore Generally it is felt that the programme is very important in not only improving enrolments of children in schools but also in improvement of nutritional and health status of children But the priority seems to be changing In the budget for 1998 99 Rs 1 092 crore were allocated The revised estimates are 28 2 per cent higher than the allocation suggesting the need to further scale up the budgetary allocations But the provision made in the current year's budget is only Rs 1 031 crore, 5 6 per cent less than the outlay made in the last year's budget, and 26 per cent less than the revised estimates for 1998 99

The prime minister has promised to provide free education to all girls up to the college level As a measure of improvement of girls enrolment in schools and colleges this is an important step Accordingly this has been given a priority in the Union Budget Allocation for girls' education was hiked from Rs 100 crore in 1998 99 to Rs 160 crore in 1999 2000 But this amount is not enough to provide really free education to all girls enrolled in schools and colleges While the scheme announced by the prime minister is to cover school and college levels including professional level higher education in the budget allocation is made only under elementary education! Further lest there is any confusion on the concept of 'free education the draft Ninth *Five Year Plan* (vol II p 130) defines it to be free of tuition fees inclusion of provision of basic textbooks maintenance expenditure in hostels and library books There can be several types of fees other than tuition fees Many a time it is found that the other fees are much higher than the tuition fees both at school and college levels So it is not all that free though the term free is wider in scope than free primary education as it provides for maintenance expenditures of the girl students in hostels

The programme of residential upper primary/secondary schools in rural areas to take care of the special needs of migration population and scattered habitations which was allocated Rs 24 crore last year could not take off As a result it seems to have been dropped out altogether

In case of adult education the rural functional literacy project seems to have been closed with no allocation at all being made in the current budget The overall allocation to adult education has however been increased by about 40 per cent

Much of the budget outlay for the national scholarships meant for the poor but meritorious students could not be used As per the revised estimates only 46 per cent of Rs 3 26 crore allocated could be utilised in 1998 99 However in the current budget the allocation has been stepped up to Rs 10 9 crore

How to raise more public resources for education? Recently the minister for human resource development has announced that an education cess would be levied for raising resources for elementary education There is no proposal of this kind in the budget However in the budget there is a hike in the price of diesel by Re 1 per litre It is also promised that half of additional resources generated through hike in diesel price would be allocated to rural development and social sectors, including education What fraction of the revenue would go to education is yet to be seen Earlier also the union government has promised that the some of the savings made through public sector disinvestment programme, and the voluntary disclosure of income scheme (VDIS) would be allocated to human development sectors like education and health One can only hope that a substantial proportion of the revenue now generated would be allocated to education

Summary and Conclusions

As far as education is concerned the Union Budget is an extremely partial one to give any comprehensive picture of public expenditure on education in the country as sizeable expenditure on education is incurred by the state governments For example according to the budget estimates in 1996 97 states met 85 per cent, the union government meeting the remaining 15 per cent of the total government expenditure on education which is a concurrent subject In case of plan expenditure however the share of the union government was above 40 per cent [MHRD 1998] Nevertheless the Union Budget does indicate the direction in which the priorities of the union government are being shaped and it obviously has considerable influence on the development of education in the states With this in view, a brief attempt is made in this article to examine the education priorities of the union government as reflected in the *Union Budget 1999 2000* the *Economic Survey 1998 99* and the draft Ninth *Five Year Plan 1997 2002*

The union government promises to accord a high priority to education making it an important component of NHDI' and also the prime minister's 'Special Action Plan In a situation when the need for strong political commitment to education is being increasingly felt these proclaimed intentions of the union government are certainly welcome But these high sentiments expressed in favour of education are not well reflected in the programmes plans and other initiatives proposed in the Ninth Five Year Plan, the *Economic Survey* and also the resource allocations proposed in the *Union Budget 1999 2000* The only major initiative proposed in the Union Budget is the Education Guarantee Scheme for the poor, which may have major internal contradic-

tions, particularly when it is aimed as a strategy of providing education to the rural poor, scheduled castes, scheduled tribes and other backward classes.

Further, the urgency to check the growth of out of school children is not being felt. The need for making elementary education a fundamental right and the need for allocation of resources for the same is also not clearly recognised. Further delay would only accentuate the problem. Further, it is clear that attempts are being made to interpret universal elementary education to mean only primary education up to fifth standard; and the long promised goal of allocating 6 per cent of GDP to education is being diluted so as to include in it not only government expenditure but also private expenditure including household and other private sector expenditures on education. These do not seem to be good auguries of according a high priority to education.

Notes

1 See Majumdar (1999) for a brief summary of the report.

2 See also Rahul (1999) for a critique of EGS in Madhya Pradesh.

3 One might fear that this is likely to be treated as non-formal education. Note that emphasis on non-formal education has been increased, with the budgetary allocations being more than doubled from the revised estimate of Rs 160 crore in 1998-99 to Rs 350 crore in 1999-2000.

4 One of the important reasons for arguing in favour of the 83rd constitutional amendment of making elementary education a fundamental right, is to see that no scope is left any more to misinterpret the constitutional directive and reduce the duration of the free and compulsory cycle of education to less than eight years.

5 E g, *Statistical Yearbook and World Education Report* (both from Unesco, Paris), *World Tables and World Development Indicator* (both from World Bank, Washington, DC), *Education at a Glance: OECD Indicator* (OECD, Paris), *Human Development Report* (UNDP, New York), even several regional studies (e g, Haq and Haq 1997, 1998).

6 Further, UNDP has estimated several ratios of expenditures such as social allocation ratio, social priority ratio, human expenditure ratio and public expenditure ratio [UNDP 1991] to provide policy guidelines. It is important to note that all these ratios refer only to public expenditures. When UNDP (1992) suggested that the human expenditure ratio has to be raised to at least 5 per cent, it also referred to public expenditures only.

7 The International Commission (1996:165) has clearly argued. "Increasing *public spending on education*, in place of expenditure under other budget heads, should be regarded as a necessity everywhere, and especially in developing countries, since it is a vital investment for the future. As a rule of thumb, not less than 6 per cent of GNP should be devoted to education."

8 Further, since most of the international statistics refer to public expenditure on education as a proportion of GNP (not GDP in general), it would be better we also refer consistently to GNP rather than GDP, though it might not make substantial difference finally in the estimates of per cent of national income devoted to education.

9 See Tilak (1990) for details, which formed the basis for an answer to the parliament question on this issue.

10 It was a little above 4 per cent at the beginning of the 1990s.

11 If we assume that about one-fourth of the total allocation made for the social services is allocated to education, the total (centre plus states) outlay may be about Rs 45,000 crore, of which the centre's share is Rs 20 4 thousand crore; and the states's share would be about Rs 25,000 crore This seems to be a somewhat most likely estimate of allocation to education in the Ninth Plan. Beyond this, one can say little on allocation of resources to education in the Ninth Plan.

12 There are discrepancies between the figures in Tables 2 and 3. This may be due to (a) Table 3 refers to education, sports and youth affairs, while Table 2 refers to education only; and (b) Table 3 may not include expenditure on education incurred by departments other than education.

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Households, Kinship and Access to Reproductive Health Care among Rural Muslim Women in Jaipur

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This article situates reproductive health care in the context of women's perceptions and experiences of illness in general as well as in terms of the material, ideological and political dynamics of household, kin and gender relations. The findings of a study among the Nagori women in Rajasthan yield useful information which would help in the construction of an appropriate health care package for women.

REPRODUCTIVE health[1] practices among Muslim women in india have been little researched perhaps because of the widespread notion regarding the tight Islamic control over sexual behaviour and the sanctions against contraceptive use. A study of the rural Nagori Sunni community in Jaipur district[2] as described in this paper revealed that while it is generally true that Nagori men and women in Sanganer do not in principle entertain the idea of a control on conception, nevertheless at an individual level, this study finds, they seek out health services for sterilisation as well as the medical termination of pregnancies. Most of their possibilities for seeking health care are not so much a function of general religious proscription as related to the organisation of Nagori household and kinship arrangements. The experiences of Nagori women in relation to the health care services were both similar to and different from other rural lower class and caste women in the surrounding villages.[3] For most of these women, the decisions regarding the timing and physical and financial cost of health services sought are closely connected to work and production demands of the household, its assets and resources, the nature of health care services available and the perspectives of the causes of illnesses and the perceived effectiveness of various cures sought.

Women carry more of the work burden of the household and therefore have less time to seek out health care services making them disadvantaged relative to men in their access and utilisation of health care services. Especially in their role as mothers, women carry a greater health burden (as carers) as well as a greater reproductive burden than men in households. The recent gender inequity approach to health [Standing 1997] considers the gender skewed allocation of resources and power in the household as among the critical factors responsible for womens' disadvantageous position within health care system. As feminist scholarship in the 1980s in anthropology and more recently in economics have shown, the household, far from being a 'natural' (biologically determined) unit of members with homogeneous interests, is in fact a site of continuous negotiations, with decisions made through both consensus and conflict [Harris 1980; Sen 1990; Agarwal 1994]. As gender roles and relations within and between households vary from one material, social, cultural and ideological context to another, decisions regarding matters of health care become at once both complex and challenging to understand.

A dominant issue to emerge from Nagori women's narratives of illness has been the negative experience of health care services related to the bearing, birthing and rearing of children. Recent studies have also shown that despite the vast network of health care provisioning in India, the outreach continues to be poor, especially for women [Jejeebhoy 1997; Gittelsohn et al 1994; Pachauri 1994; Visaria and Ramchandran 1997]. The focus on women in health delivery programmes has mainly been with regard to reproduction with an emphasis on the control of fertility. At least until 1994,[4] reproduction has been narrowly defined by the characteristics considered demographically important [see Greenhalgh 1995 for a powerful critique on demographic approaches to fertility]. Few studies on health delivery in india have moved beyond an orientation towards demographic statistics to actively engage with questions of gender, culture and power (the documentation to emerge from NGO activity in the area of health is, however, an important exception).[5]

This paper situates reproductive health care in the context of women's perceptions and experiences of illness in general, as well as in terms of the material, ideological and political dynamics of household, kin and gender relations. It focuses on menstruation and childbirth and local perceptions of the body, reproduction and ill-health. It describes the material and ideological factors linked to the household which facilitate Nagori women's use of health care services. The important role of kinship relationships in relation to health care financing is discussed. The conclusion considers which kinds of women in the household and community are best positioned to play an active role in facilitating women's use of the health facilities provided.

I
Menstruation and Childbirth: Health Needs and Health Care Provisions

For most of the Nagori women in the study menarche commenced when they were between 15 to 18 years old and they had their first child when they were between 17 to 20 years. On average, these women married when they were between 2 to 13 years with the 'gauna' (or consummation) for those who were married below 9 to 10 years, taking place approximately three to four months to one year after menarche. Thus like other rural women in the area – meena, khateek, raigar, rajput, brahmin for example – rural Muslim women are initiated into childbirth at a very young age and quite soon after their first menstrual period. Most of the women in their 30s had also been married in accordance with the local Rajasthani custom when they were children with the consummation or gauna taking place after menarche.

Most of the reproductive problems of rural women in this area of Jaipur district were related to menstruation and white vaginal discharge. Information based on eight months observations of the patients at a voluntary health centre in the area indicates the menstrual disorders ('mahawari/maheena ki pareshani') to be of four conditions: menorrhagia (excessive bleeding), dysmenorrhea (painful bleeding), amenorrhea (absence of bleeding), polymenorrhea (irregular bleeding), with the first and fourth being most common and hardly any instances where medicine is sought for painful bleeding.[6] Leucorrhoea or white vaginal discharge ('safed pani') usually refers to excessive discharge, leading to heavy soiling of clothes, causing discomfort and accompanied by a bad smell. Other related

problems were to do with conditions of pelvic inflammatory diseases referring to the infection of the fallopian tubes, ovaries and uterus including the cervix (often encompassed in the use of the local terms 'ghav', meaning wound, or 'ganth', meaning lump in the 'nalli' or tubes and 'bachchadani' or uterus); prolapse of the uterus, cystocele (bladder prolapse), and rectocele (rectum prolapse) through the vagina, all referred to as 'shareer nikalna' by the women; anaemia and nutritional deficiency (indicated by the general term 'kumzori', or weakness) with most of the women having a haemoglobin level of 8-10 gm per cent (under 8 gm per cent indicates severe anaemia, over 12 indicates a good haemoglobin count); other, such as a few cases of primary sterility (approximately five women in 2,000 who come to the health centre), few with suspected cervical cancer and a few relatively minor cases of breast abscess and mastitis.

While a few cases of maternal mortality came to the notice of the health centre, there was a high incidence of maternal morbidity. This ties in with various statistics on women's health which show a high occurence of maternal morbidity and disease of women in their reproductive life span with a high correlation between poverty and maternal and infant mortality.[7] As is well known, infant mortality is crucially connected to maternal health. High infant mortality figures are recorded in Rajasthan in general. There was a very high incidence of foetal and infant mortality across communities in the area with the highest number of children dying below one year. Twenty three of 48 Muslim women reported 43 infant deaths (25 girls, 18 boys). Twenty five deaths (58 per cent) were among children under the age of five with 21 of these deaths (84 per cent) occurring under the age of one year. There was an equally high incidence of foetal death ('bachchadani mein bachcha kharab hona'). Of 48 Muslim women 19 (40 per cent) reported one to three miscarriages ('safai' or 'girna') of foetuses between two to six months. The most common cited reasons for foetal and infant mortality alike were 'oonpar ki bimari' literally 'an illness of top', caused by an ill wind and tetanus.[8]

As women articulate their health problems in very general terms, it is important to consider women's reproductive health in the context of their wider complaints of illness. Nagori and indeed other caste women used descriptive terms such as 'dard/dukhna' (pain), 'kumzori' (weakness) or 'pareshani' (discomfort) to convey their sense of ill-being. The most frequent general complaints of women, in order of highest occurrence are: (i) pain in the upper abdomen (epigastrium) related to hyperacidity, with nearly four to five out of every 10 women having this complaint. This problems is related to dietary habits and the fact that most women drink only a cup of tea till their midday meal; (ii) dizziness ('chukker') along with loss of appetite ('khana hajam nahi hota'), related to weakness and malnutrition; (iii) chronic cough ('khansi'), a common ailment which they share with men; (iv) fevers ('bukhar') and body aches (especially 'peeth mein dard/kamar dard'), the latter affecting older women more frequently; and (v) others, such as headaches and visual disturbances, seasonal diarrhoea, fungal skin infections and viral fevers. The use of more general words relating to pain, discomfort and weakness rather than specific disease related terms also points to the fact that women perceive their illness as related to causes lying outside the purely physiological domain. Often illness, especially to do with fevers and sudden death or in cases when allopathic medicines are ineffective ('dawai nahi lagi'), is perceived to result from 'oonpar ki hawa' or an ill wind (related to jealousy and tense social relationships within the locality). Such references to the influence of soul and spirit upon a person's health indicates that in local (Muslim and Hindu caste) perceptions the health of the individual and the social body are connected [See Lock and Scheper-Hughes 1996 on three important notions of the body in medical anthropology; and on ethnomedical systems where illness cannot be situated in the mind or body alone precisely because no distinction is made between body, mind and self].

Almost 75 per cent of the women I came across, resorted to spiritual healers for their ailments. Given the fact that the causes of poor health are regarded as lying as much in the social as physical domain, it makes cultural sense to also seek cures from healers other than from the medical profession. The high maternal morbidity among rural Muslim and Hindu caste women was related to a combination of physiological, social, economic and psychological factors wherein marital problems, the social consequences of aborted fertility, poverty and lack of nutrition, the inability to control infant mortality, the lack of information about diseases and effective recourse to cures were only some of the realities which took their toll on women's lives. The government and formal, private health services on offer are as yet ill-equipped to meet the health demands of this nature.

In Rajasthan as elsewhere in India, the provision of health care facilities from a development and macro-perspective lie on government's shoulders. It is the government which has the structure, albeit a rambling one, to effect safe health practices among a wide and disparate population of health-seekers. In Jaipur district, for the rural population, there are 17 primary health centres and family planning centres, 35 dispensaries and three hospitals. By contrast, there are 14 urban hospitals and 15 urban family planning centres. There are 15 mother and child welfare centres. Apart from allopathic services, there are 259 ayurvedic aushadhalay (dispensaries) and three ayurvedic hospitals [District Gazetteer 1987]. Each primary health centre has a number of subcentres depending on the population with each subcentre in Sanganer catering for between 2,500 to 5,000 persons which could include anywhere from two to 11 villages over a radius of one to eight km (personal communication, Sushma ANM).

Women in the Nagori village overwhelmingly tend to use the services of private, medical and traditional healers, rather than government institutions. This is not a surprising observation as Bhat (1993) in his review of the private health care sector in India finds that both in terms of number of hospitals, dispensaries, clinics and number of physicians, the private sector far outnumbers the government sector. The small Muslim clinic in the smaller of the two Nagori populated villages is used for fevers, coughs, aches and pains but the doctor is not regular and the medicine is not effective. Apart from the private doctor in the village there are private clinics in three locations within a radius of 4-6 km. The first location, south-west of the Nagori village is in the railway town which has approximately 10 health centres (nine are private clinics which offer general services, of which one is ayurvedic and one is women-focused. The government also has a primary health centre here). Of these health facilities four including a government primary health centre have at least one doctor with the qualifications of MBBS or MD with four registered medical practitioners (RMP),[9] one vaidya (ayurvedic qualification) and one 'doctor' with simply 'experience' (who has not passed his 10th class). Of the health services available within a radius of 1-6 km, none of the private doctors frequented by the Nagori Muslims offer reproductive health examinations or ante-natal check ups for women. Thus in seeking medical attention

with regard to reproductive health related problems women have to traverse greater distances spending more on transportation costs and involving contact with fewer doctors who know their family contexts.[10] This may explain why women usually seek out reproductive health services only in very serious cases where infant or maternal life is at stake and not for what are regarded as routine matters of childbirth.[11]

For reproductive health services Nagori women go equally to private and government doctors but prefer to see government doctors in private where they are promised greater attention and care. They do try to have a good relationship over a period of time with one or two doctors whose medicine is considered effective ('jin ki dawai lagti hai'), irrespective of the cost of care and distance. Women travel from 8 to 20 km towards the city to seek out these private health services. There is usually a combined resort to allopathic, unani and spiritual remedies. The cures from appeasing afflicting spirits such as those of Sayyed Baba and Ramzani Baba who possess relatives or members of the community, or even from men of the meena and bhangi caste who are possessed, are particularly effective for illness resulting from 'oonpar ki hawa' (literally wind from above or over the body). Usually these are illnesses which have a sudden on-set such as fevers and may be accompanied by abnormal behaviour. There are also Hindu 'jhad phoonk wale' whose services are sought for ailments such as snake bites, body fever and aches and taken along with allopathic medicines. There are few 'jadi booti' or herbal home cures which are followed with any seriousness or in systematic way. Usually, the jadi booti are those prescribed and prepared by the unani doctors. When medicines are taken in such a combined fashion and the result is positive, i e, the patient gets better, the effectiveness ('phayda hona', 'dawai lagna') is seen to result from jhad phoonk rather than the allopathic medicine.

II
Household Context of Health Needs: Work, Time, Food

The sexual division of household labour and further the division of labour among women of the household has implications for women's health at two levels. Firstly, in terms of the actual physical burden imposed by hard and continuous labour with little respite during weakness or illness. Secondly, the continuous daily demands made on women's time makes it very difficult for them to take 'time out' to consult health specialists. This direct and indirect toll on women's health shifts with the development cycle of the household – being heaviest on newly married women, somewhat less burdensome when children become old enough to help (from seven to 10 years onwards) and significantly reduce with the arrival of daughters-in-law. The desire of women to have children, daughters to help at home when they are young and sons to bring in their wives' labour, works significantly towards achieving a reduction in their work burden. In this sense there is a conflation of the cultural notion of having more children (where no active decisions may be taken) and the desire for offspring to meet labour demands (where active decisions to have more children are taken). The cultural and economic factors are further modified according to the overall material situation of the household and the health of its members as I discuss below.

As other rural inhabitants in the area, most of the married male residents of the Nagori village own small subsistence portions of land or have rights in crops produced in the land of their kinsmen (brothers). On an average a household (conceptually members of one 'chulha' or hearth; although there may be more than one physical chulha) which has one main wage earner makes an earning of Rs 1,500 to Rs 2,000 – from outside wages (either from work with semi-precious stones or in the construction industry) and procures three quintals of wheat staple from within the village which can last up to six months depending on the number of people who stay together ('shamil rahne wale'; of one chulha). I have found a maximum of two to three married brothers who line together and one brother living separately, making for one separate household for every three joint households in the village. An average joint household would have a minimum of two to three goats and access to water for bathing, drinking, and washing clothes from a distance of 0-1 km.

Women spend on an average between 10 to 15 minutes to half an hour in the early morning sweeping inside and outside the house. This would include the collection of a couple of baskets of animal dung and feeding the animals. Following this, women spend half an hour to an hour filling approximately four to eight pots of water in the morning, a task which is repeated in the evening (each pot weighs around eight to 10 kg). Women spend anywhere between one to two hours preparing food and make eight-30 rotis for the day (the number varies according to the number of relatives, guests, temporary, additional members of the household). Bathing small children and washing clothes take two hours to half the day but would be done once in two to three days only. Washing dishes also takes half an hour to an hour twice a day. Then there is the work in the fields. Like all Muslim women, Nagori women are proscribed from work 'outside' ('outside' I was told meant beyond the 'ilaka' or locality which included the village as well as a certain portion of the surrounding area). Most middle and lower class Nagori women engage in some kind of agricultural activity which is seasonally determined. The heaviest of the agricultural work for women is the harvesting of the wheat crop (including jowar and gram) referred to as 'lavani' which takes place from mid March-April. There is another round of lavani of smaller crop of bajra, moong, guarfali, cholai during October. Apart from lavani women also weed ('ninani'), water ('panat') and cut ('todna') the crop at other times of the year. Men make bundles and sell the crop which is not earmarked for household consumption. Women and men of the richer households who can afford to lease out their agricultural land do not work on their own fields. If the household is a poor one, i e, there is no steady income by an adult male member then women also perform 'mazdoori' (wage labour) or lavani for money (approximately Rs 40 to Rs 50 per day) on another Nagori or Pathan's fields in the village.

The division of household tasks works in favour of the age of women only if they have younger women to shoulder the heavier tasks (filling water pots, cooking, cleaning, and cutting and weeding in the fields) or if the household is relatively well off. There are usually four categories of women who tend to live together, the mother-in-law ('sas'), younger sister-in-law ('devrani'), elder sister-in-law ('jethani'), and the husband's sister ('nanad') if she is unmarried. The task of preparing food, bringing water, cleaning utensils, sweeping and cleaning are usually shared among the sisters-in-law. It is common to find a rota of work among the younger women so that when one cooks the other will sweep and fill the pots. There is no sharing in the rearing of their respective children although occasionally small tasks such as dressing the children may be shared. The main work of the sas is to attend to the younger children nevertheless babies from six months upwards may be entrusted to the care of elder siblings (both boys and girls), while women complete domestic tasks and do small errands or odd jobs in the village

While some sas do indeed perform few household tasks, many because they live in joint households do a lot of household work especially when the younger women are sick or indisposed due to childbirthing, both of which occur frequently. In fact most younger women mentioned their mothers-in-law as co-workers rather than as shirking work.

One of the common work burden related physical ailments which Nagori women suffer is of a prolapse of the uterus. Mehmuda, the Pathan 'dai' is 65 years. She has given birth to eight children. She said her uterus was protruding 1.5 inches at present but 25 years ago it projected about four inches outside her cervix. She said that when she was three months pregnant at the time of her third child she had lifted a bundle of approximately 40 kg and immediately felt her uterus give way. At that time she consulted a private lady doctor in the city who inserted a rubber ring but Mehmuda discarded it as she felt uncomfortable "mein bechain ho gayi aur usko nikal ke phenk diya". Mehmuda also tried some herbal medicine (extract of the Bodjadi bush) but nothing worked and she just lived with it. In fact most women I talked to considered a prolapse of the uterus more as a condition to cope with and manage rather than treat. They also did not seek treatment due to 'sharam' (shame), the absence of knowledge about effective cures and the fear of termination of their fertility. While I was told that a lifting of heavy weights was not proper during pregnancy yet all the women I saw in the last stages of their pregnancy both carried pots of water, bundles of weed and fodder as well as performed tasks such as lavani involving arduous labour in the fields. In reality women were careful with heavy weights for 10-30 days after childbirth. The number of days depending on (i) the presence of household help, (ii) the stage of the development cycle the household was in, especially the number of children to cook for and feed, and (iii) the seasonal work and food stocks of the household.

The weakness of mothers and infants is largely due to their under-nourishment and connected with little emphasis on the quantity and nature of the dietary intake of mothers during pregnancy and after childbirth. Nagori women ate no differently in quantity or type of food during their pregnancy compared to what they would eat under normal circumstances. This means they would have a cup of tea in the morning, approximately one to two rotis with one 'katori' (small bowl) of cooked vegetables or chutney or chilli; onions and one katori of buttermilk/dal or lentils at mid-day and the same at night. Most men were unaware that women needed any supplements to their food or even respite from work during their pregnancy. A few women mentioned that it was a good idea to eat 1/4 kg to 1 kg of 'khopra' (desiccated coconut), 0.5 kg urad lentils and up to 1.5 kg of sesame seed oil in the eighth month as these are 'chiknasi' (lubricating) foods which would help the foetus move easily within the womb to ensure a smooth delivery. Almost all women reported having some special food after childbirth but the quantities were little and the duration was on an average up to 20 days after delivery.[12]

Very few women mentioned the consumption of large amounts of fluid or eating greater quantities of food than in their regular diet. An important difference between food consumed following childbirth and regular food is that the former is freshly prepared each time (apart from the 'ladoo', see footnote above). As the new mother ('jachha') is prohibited from touching the hearth and the water pots due to pollution ('gandagi' – dirt) following childbirth (for a period of up to 40 days), she is dependant on other women to feed her. Either her mother-in-law looks after her or a 'sister-daughter' has to be called over. It is the availability of these other women which determines the type, quantity and duration a new mother gets fed. At the very least, I was told somebody looks after her for two to four days.

Thus it is not so much an equitable distribution of food in the household which is in question as the fact that women deny the food to themselves. This fact points to the important role of gender ideologies in the inequitable distribution of resources in the household and its implications for women and children's health. The notions of 'good' and 'bad' breastmilk are an important example of the role of gender ideologies in determining access to nutrition or its denial. According to Zahida there are women who can be differentiated according to the milk they produce and the evidence of this lies in the fatness of the baby relative to the mother. "Jab mota bachcha aur dubli aurat hoti hai tho doodh acha/phulna hota hai. Jab patla bachcha aur moti aurat hai tho doodh katna hai." (Breastmilk is of good quality when the baby is fat and the mother thin and not in the opposite case). Such notions also pressurise women to be thin and consume less of food and especially fluids, so vital for milk production and general well-being. A generational factor could also be significant. Most older women claim to have had enough breastmilk to raise all their infants. Zahida's mother for example, said she had plenty of breastmilk and fed her children exclusively on breastmilk. Many of the older women also ascribe poverty to their inability to provide different kinds of food (biscuit, milk) and therefore rely solely on breastmilk to feed the children.

Women themselves did not consider it important to change the type or quantity of foods during pregnancy or lactation. A number of women said they were incapable of ingesting much food under normal circumstances as well. This may very well be the case as in anaemic conditions, due to a reduced oxidation of the body, there tends to be a loss of appetite. But as one woman pointed out, this could have its roots in childhood eating habits. Also, women were afraid to become fat as this would invite comments from other women that they were not working enough. Compared to the women , men in the household ate the same food ('roti-subzi') but in greater quantities, with greater regularity and before rather than after physical labour.

III
Kinship and Finances in Access to Health Care

The inevitable preamble to any conversation on relatedness amongst the Nagori Sunni Muslims is, "all Muslims are one; we are all one". Caste type differences, however, emerged in discussions on marriage preferences. Most women were aware of four to five different groups into which they could marry, including their own (father's) group. Most women in the Nagori dominated village fell into eight such groups and there were a further six groups whose names were mentioned. The common 'gotra', clan or sub-subcastes were sheikh, irawat (both upper), lalawat, khokhar (lower), raksha, samavat, ladawat and rav. There were a few pathan households in the village. Sunni Nagori women were quite clear that they married their father's sister's son (FZS: in the 'phoophi' category), mother's sister's son (MZS) or a variant thereof (for example, Zahida is married to her mother's father's sister's son). Married Sunni women were not only socially close to their natal kin ('piyar') but also physically close to them. In most cases women's married home ('sasural') was within a radius of one km to four km from their natal home. There were few women whose married home was further on (within a radius of 40-50 km). The social and physical proximity of natal kinspersons has important implications

for Nagori women's access to health care services in at least six ways, viz, (i) in the organisation of money to pay for health costs, (ii) in arranging for women or men to accompany patients to health care centres, (iii) in the provision of help with child care for a sick mother, (iv) in the provision of help with domestic tasks while the woman is away, (v) as a means to reliable information on health care facilities, costs, locations etc, and (vi) for emotional support as often medical experiences are traumatic and degrading for women.

On an average the expenditure over 10 months on the health of women alone is from Rs 1,000 to 10,000 which is very high considering that the average monthly cash income of the household is Rs 1,500 to 2,000. None of the households contacted had any specific sum set aside to cover illness expenditure of family members. All expenditure on health was crisis expenditure and reached high sums because treatment was delayed till the problem was acute.[13] Money to cover health costs came from two main sources – kinspersons or unrelated moneylenders (employers, silver smiths, local people dealing in this business). The money is borrowed at a rate which is currently between Rs 2 to Rs 5 per Rs 100 and used for all kinds of household expenditure with a larger portion being spent on health. Most households spend substantial sums of money on health care services from private sources compared to the income earned.[14] Most families who do not have more than one regular income earner are therefore permanently indebted, rising or falling in small cycles of debt. When the debt reaches a very large amount (in the region of Rs 40,000 and upwards) and a difficulty in repayment is envisaged, due to, for example, crop failure or further illness crises, then drastic measures such as the sale of a portion of land, highly priced in the area is resorted to. Being in debt of up to Rs 10,000 is such a normal condition that debtlessness does not seem to be actively desired perhaps because it is not achievable in practice. The role of kinspersons looms large in meeting health care costs.

Most Nagori women utilise the services of a private lady doctor for problems relating to menstruation, pregnancy, fertility and childbirth despite the large sums of money involved relative to the household cash income (very rarely are non-reproduction related problems of women given as much attention or financial outlay). If there is bleeding during pregnancy, usually the outcome is to get safai done by private women doctors who charge fees from Rs 400 for foetuses of 2-2.5 months to Rs 600 to Rs 800 for foetuses of four to five months. Including transportation and medicine, women spend approximately from Rs 500 to Rs 1,500 for a medical termination of pregnancy (MTP). The facility for MTP as well as sterilisation is provided free of cost in government hospitals yet there is less resort to these services because (i) of the belief (and practice of at least one government hospital) that women be sterilised at the same time so government utilities are not wasted on continuously aborting the same woman's foetuses, (ii) of the practice of government gynaecologists who prefer to see patients in private as they claim they are able to give patients more attention at home, (iii) at government hospitals there is the expenditure on medicines which have to be bought from elsewhere, for urine, blood and other tests patients are advised to go to private laboratories for speedy results, and there is an unauthorised charge made by hospital personnel (sweepers, washerwomen) for any services requested from them. The resort to safai proves far more effective than the prevailing contraceptive options presented to women which are neither culturally acceptable (like nirodh; only two young couples used nirodh) nor physically acceptable by weak bodied women (intrauterine devices such as the Copper-T and even hormonal pills can cause excessive bleeding in weak and anaemic women). Sterilisation (locally referred to as 'operation'), a possible but difficult to reverse process, is the most viable option for women but resorted to only when the desired mix of girl and boy children are attained (four to five children with two boys and two girls). For many women conceiving the desired number of girls and boys takes them up to their menopausal stage in the reproductive cycle.[15]

On the subject of financing health care costs, Madari Khan assured me Muslims do not borrow from amongst each other but only take money on credit from moneylenders of other castes, especially, the meena in the area. Zahida, however, gives me a different picture of credit networks. She says the difference between borrowing from relatives ('rishte wale') and non-kin is that there is no interest to be paid to one's relatives. Also, the amounts which can be borrowed are smaller and range from a few hundred rupees to a thousand or two rupees. Her main source of credit is Maraim, her elder nanad (husband's eldest sister) who lives in the village. Maraim gives Zahida credit of up to Rs 2,000 from whatever money she has. For greater amounts, say of up to Rs 10,000 Maraim gets money for Zahida from persons who can lend this amount ('paise dene wali' party) In case Zahida is unable to return the amount on time, she says Maraim will cover for her and give back the money borrowed. Women in the nanad category are thus important sources of funding. A woman's nanad also helps her during childbirth, with cleaning and washing, her important role is acknowledged in the Nagori custom whereby she offers the mother's breast to the newborn infant for its first breast-feed.

The relationships between children and elder women which stem from ties established through breast-feeding place kinship obligations (including to meet financial requests) on the latter which are difficult to refuse. Although not a very frequent practice, there were several women who had breast-fed their younger sister or sister-in-law's children. Most women stressed that this was a practice only for the children of women you were close to in kin terms as there is the fear that if the child falls sick the blame would fall on the woman who had breast-fed it. There is a custom called 'doodh buksna' whereby boys pay money (Rs 21, 51 according to their means) to the women who have breast-fed them, when these women are nearing the end of their lives. The money is then distributed among the women's daughters. Mothers and daughter's have a strong tie in the Muslim community which is also reflected in breast-feeding patterns. According to Mehmuda, girls are breast-fed for six months longer than boys because they have a stronger right over the mother (*'ladkiyon ka maa ke unpar zada haq hai'*) and girls always take from their natal kin ('ladki to piyar walon se hamesha leti hai'). Zahida says as a daughter she gets the goat's head (a delicacy) when a goat is sacrificed on Bakri-Id at her natal home. She told me how despite her negative experiences of childbirth (recounted below), she was pleased to finally get a daughter. Her story is also an account which makes us consider the role women have in the decisions surrounding childbearing and birthing.

Zahida's Story

Zahida got her first period when she was 13 and in her natal home. She was married at 14. One year later she conceived her first child but was totally unaware of this. Her period stopped but she did not tell anyone about it. When she was in her ninth month she became very sick and could no

walk – then her mother, father and father's sister came to see her. Her mother saw that her breast was leaking and told Zahida that she was pregnant and then called a midwife. The midwife said Zahida could have a child at any moment but she should not have her child in her married home as it would be dangerous for both mother and child. Zahida could not go to the bathroom, she could not see, could not hear, her body was swollen and she had little help or sympathy from her husband or in-laws. Her father said they would take her home. Her husband became angry and tore her father's 'kurta' (shirt) and dhoti. He said if she dies, she will die here, I am not sending her. Later, her 'jeth' (husband's elder brother) intervened and said to his brother that you bring her to the city and I will show her to the doctor. Then her husband and husband's sister tied her with a rope as she was too weak to sit up and put her on the cycle and took her to the government women's hospital. The doctor admitted her and asked her husband and his younger sister who they were. They said they were Zahida's neighbours, that she had no kin and that her parents were no longer alive and her husband stayed outside Jaipur. According to Zahida, they lied because they were scared and besides her husband's sister had been told by her in-laws not to say anything, to let her brother do the talking, otherwise she gets on well with her sister-in-law. Zahida was left alone in the hospital where she was treated for 15 days and she had a son of 1.5 pounds who "was like a rat" ('chuha jaisa'). Zahida stayed in the hospital for another 15 days and the child was kept in a machine (incubator). She also received two bottles of blood from a 'rickshaw walla'. Her jeth paid him, she does not know how much. Her jeth did so much for her. No one came to meet her from her sasural, not even her husband, not even after the child was born. Once her jethani came, and others from her mother's house. When she was discharged a month later, she travelled home herself, no one came to collect her. Her husband was ill. There was nothing to eat at home when she returned. Her mother sent 20 kg of wheat, her nanad (husband's younger sister) gave her some 'thooli' (broken wheat daliya). This she roasted and boiled in water and ate – she had no ghee, no milk.

Zahida did not conceive for another seven years. Her in-laws said she could not conceive and told their son to divorce her. Her husband kept her son, hit her and sent her back to her 'piyar', where she stayed for two months. The meeting of elders called subsequently decided that because Zahida was a good woman, her husband must be forced to take her back. Zahida then sought medical advice from a private infertility specialist. She became pregnant but the specialist said the foetus was not growing. Somebody in the village said it was because of 'oonpar ki hawa'. Then she sought help from a man of the meena caste who became possessed by Bhairu (bhairu bhav), got a 'tabeez' (charm) made, got 'jhadan' done and wore a 'kada' (amulet) on her right upper arm. She continued to take the specialist doctor's medicine and advice whenever she had some money. She also saw a 'bhangi' and got a thread to wear around the neck ('gale ka dora'). When she was five months pregnant she had a lot of while vaginal discharge ('safed pani'), and went back to the doctor specialist who recommended a sonography, gave medicines and then she became better. The baby (son) was born at home. A third son was also born at home as was her fourth son after a gap of a year. The fifth child (also a son) miscarried at five months as a cow hit Zahida and its born ruptured the uterus. She bled for three days at home without treatment. When the bleeding did not stop, she sent her son to call her mother. Her mother took her to the government women's hospital. The doctor said the baby in the womb was dead since 48 hours and refused to take up the case. Zahida was removed from the bed but she insisted on help and treatment. She was not attended to but stayed there for five days – "I was almost dead. I was completely blue." Then her jeth came to talk to the doctor (her jeth had given her the phone number but she did not know how to phone and no one was with her) and insisted that she be treated. On the doctor's refusal, her jeth threatened to bring judicial proceedings against the doctor but to no avail. Then they contacted 'Neetu', a private doctor who had treated other women from the village. She said she would look at Zahida but took no responsibility if she died in her care. Zahida was admitted and an MTP was performed (safai) and she received blood. She said she felt dead and was unconcious most of the time. One of the doctors even proclaimed her dead. Her natal kin got things ready "kabr khod liya, kafan laa diya' (they dug her grave and brought the covering cloth). Her husband also started beating his chest in the hospital. Then Neetu came and saw a flicker in Zahida's eyes. She ordered for oxygen to be given. Zahida said she was put into a 'machine'. The next day she became conscious and her jeth told the village people she was alive.

Some Rs 7,000 was spent at the private hospital. The money was taken on credit and repayed at a rate of Rs 700 per month (totalling Rs 8,400). Two years later the twins were born at Neetu's clinic at home. The bill came to Rs 15,700 of which Rs 3,700 were arranged from the household resources (the TV and a goat were sold) and Rs 12,000 was taken on credit from a brahmin, to be repaid within 14 months. Zahida uses the copper-T since then. She has finally got a girl and wants no more children. The Copper-T is giving her pain but she cannot remove it for fear of becoming pregnant again. She wants to get operated but does not know exactly when. She says her husband is useless because he does not work and somehow she has to feed the children. He also beats her. She says he is a good man because he lets her go where she wants.

IV
Women's Agency and Health Care

In his study on the relationship between agency and fertility, Carter (1995) points to the small but growing body of evidence which suggests that even in pre-transition, high fertility and high mortality populations which are considered to be characterised by natural rather than controlled fertility, certain strategies are operative which effect a balance between household personnel and resources.[16] Control over the duration of breast-feeding and controlling intercourse are some of the examples cited by which couples schedule conceptions. Nagori women, I found, also can directly control conception by opting for (i) foetus extermination (safai) rather than foetus saving techniques, (ii) by resorting to sterilisation and, (iii) indirectly by regulating the duration of breast-feeding. While Nagori women have greatest control over breast-feeding compared to safai and sterilisation, they do not make a direct connection between reduced breast-feeding and the resumption of menstruation (or the ability to conceive). In fact they believe the reverse occurs, in other words, because they conceive, breastmilk production declines. Moreover, their control over breast-feeding is compromised by their weakness and malnutrition, as I discuss in the following lines.

With regard to breast-feeding, I have found that mothers' decisions made at two stages, one early on and one later, crucially influence the termination of post-partum amenorrhoea as well as the survival chances of the new-born child. All Nagori mothers claim to breast-feed girls for 27 months and boys for 21 months as stipulated in the Koran, yet there is a great deal of

variation (on average the tendency is for girls and boys to be breast-fed till the age of 18 months or so). In the first six months, observations show that Nagori infants do not get exclusively breastfed. The infant is first put to the breast on an average of 24-48 hours after delivery. As breast-feeding can commence only after the 'ajaan' or words of allah spoken in the ears of the new-born by a learned man, the infant's access to breastmilk depends on the availability of such a person and on the urgency with which he is sought. The NFHS also points to the delayed receipt of breastmilk and the custom of removing colostrum as factors contributing to infant mortality. Although it is true that the Nagoris consider colostrum ('keela' yellow straw-coloured first milk with essential antibodies for the infants' immune system) to be 'bad milk' as it has been 'stored for a while' and therefore it has to be removed, in reality only a few drops are squeezed out by the nanad (HZ) and so the baby does receive some of the benefits of ingesting colostrum even if in reduced amounts. But perhaps what is more debilitating to the infant's health and to the mother's health is the practice of bottle-feeding with a mixture of goat's milk and water, from as early as four to five days onwards. In these instances the mother is either working in the fields or more often says she does not produce enough milk. While generally suckling the breasts should stimulate milk production, in weak and malnourished mothers this may not be the case (Banerjee, personal communication). Here the line of difference between taking an active decision (where the mother continues to breast-feed even though there is less milk) and the decision not to breast-feed because of the absence of milk, is a thin one. Then there are also the Nagori notions of 'good' and 'bad' breastmilk which come into play.

Given the patriarchal, Muslim setting in which child birthing takes place, it is difficult, especially for young women, to exercise reproductive choice.[17] Shakila has a daughter of four years and a son of two years. A week or so after she missed her period she sought out the lady doctor at the voluntary centre to know if she was pregnant. She said she did not want a child so soon. A couple of weeks later when her pregnancy was confirmed she began enquiring about safai. Her 'tai' (her father's elder brother's wife) who accompanied her said it would be alright provided she asked her husband. Shakila did ask him but said her husband wants her to have the child. He is a great 'namazi' (scholar of the Quran) and would not hear of safai. He did not even allow her to take any 'takat ki dawai' (medicine for strength). Shakila says she will now go ahead with the pregnancy but she comes regularly for takat ki dawai and has had her (TT) injections.

Women were quite open in talking about the 'operation' (sterilisation), both as something they wanted done or as having undergone it. When I recounted a story I had heard to a group of Nagori women, that women who underwent sterilisation before conceiving all the children written in their destiny would be troubled in their coffins by these unborn children, the women laughed. Jabunnisa scoffed and said, "who is there to check on what happens in the coffin!" The decision to undergo sterilisation is one of the couples rather than the women alone and thus depends on men's attitudes as well. Several Nagori men, unlike Shakila's husband, have had a positive attitude to sterilisation either having undergone it themselves or have encouraged their wives to be 'operated'. When I point out the proscription of the Koran on the subject to the men, they point out the problems related to their wives' illhealth or their poverty as forcing them to take such decisions. Nagori women's agency must also be seen in terms of the different attitudes and social hierarchies (especially of poverty and Quranic education) which exist between men. It was often the case that men who were well versed in the Koran and read it daily placed greater strictures on their women as a means of differentiating themselves from other men in the community.

Much of the recent demographic literature has been on the impact of schooling and employment on women's powers to take autonomous decisions regarding their fertility. Yet as Jeffrey and Jeffrey's study of Muslim Sheikh women in Bijnor, UP suggests, that while there is a correlation between lowered fertility and women's schooling experience, and work outside the home, it is not always so (1997: 121).[18] Eight women from approximately 200 Nagori households have had formal non-religious education of up to at least the fifth class. On the one hand, there is Shahnaz who along with her husband is one of the two young couples who use nirodh. On the other hand, in the same set of young women, there is Shakila who would like to have an abortion to space her children but who cannot do so because of her husband's wishes against it. Then there is Zahida who has had neither a Quranic nor any other education, is relatively poor and uses the Copper-T. This would suggest that schooling and employment are only two among a number of individual household specific factors which have to be taken into account in understanding reproductive health seeking behaviour. The material on Nagori women emphasises the fact that the extent to which they can be active agents in health care matters depends, apart from their own motivation, on their physical condition (with weakness acting as a constraint upon their activities), their vulnerability to cultural notions (which especially young and first time mothers are prone to), their age, household relationships especially with the husband and the women in his family and the interhousehold (piyar-sasural) connections. Thus any discussion of agency, however, nuanced, can only be partial.

V
Conclusions for Policy: Enhancing Access and Responding to Health Demands

The task of enhancing reproductive health service outreach in the villages around Jaipur lies at many levels which address not only the question of access to existing services but also the provision of facilities which take into account the context specific, gender and age health needs of the local populations. With regard to the rural Muslim community in north-east Sanganer, it requires that preconceived notions among health service personnel regarding beliefs such as the uncontrolled fertility of Muslims and a consequent low demand for reproductive services be surmounted. Religious and cultural differences between the Nagori Muslims and caste groups in the area while they are significant as markers of identity are less important as far as their reproductive health perspectives and needs are concerned. The main cultural difference which lies in the pattern of Nagori marriage and residence of adult women works mostly in favour of facilitating women's contact with health care functionaries. And, Nagori women, as mothers, mothers-in-law and elder sisters-in-law are more able to support younger women, in material, emotional and work terms when they are ill. The only other custom which sets the Muslims apart from other communities in the area is to do with their practice of male circumcision, which can make infants doubly vulnerable to the dangers of tetanus infection (the first instance arises from the possibility of contracting tetanus following the cutting of the umbilical cord). Nagori Muslims have neither more wives nor more children than other groups in the area, nor have

significantly different notions as to the causes and effective cures for illnesses. All groups seem to share an approach to health and reproductive health in particular wherein mind, self and the social body are combined rather than separate, and where sickness is as Lock and Scheper-Hughes (1996; 53) put it, "a form of communication through which nature, society and culture speak simultaneously". There is thus a common tendency to first seek out health services which are organically connected to the social body (such as 'family' doctors, those who have treated other members of the family, or those who heal through spirit possession, both Hindu and Muslim). Medical approaches are generally regarded as important but alien precisely because the treatment is clinical, separating social cause from physiological consequence. Tubectomy which is dominant in the medical discourse on women in Rajasthan and elsewhere in India, points to the extremes to which there is a medicalisation of women's bodies.

Most villagers in the area tend to seek private rather than public health services with a significant amount of household income being spent on treatment. Because of the large sums on money which may be inolved, treatment cannot be sustained for long periods and is discontinued the moment there are any signs of the patient getting better. Women's reproductive ailments, particularly if they are in their child bearing years, tend to receive more immediate attention than reproductive problems among adolescents or in elder women. This is because men as husbands also give greater importance and value to the reproductive capacity of women. In general, there is great reticence in talking about reproductive ailments between men and women as well as among men. Usually reference to sexual and reproductive processes between members of a household is made indirectly. Similarly, reproductive illnesses are resented indirectly which is why problems considered shameful, such as vaginal discharge, or 'natural', such as related to breastmilk production, or those which women are meant to cope with such as a prolapse of the uterus, tend to remain 'invisible'. It is only when women and men are listened to, and encouraged to talk rather than being talked at, that any delivery of health care can be effective, sustained and meaningful. A large number of health problems in the area stem from the lack of adequate water supplies and a preponderance of sand and dust in the environment. As one woman said "humara mitti ka kaam jyada hai" (our work and lives are dominated by sand). Hence health programmes need to be broad-based, so that they help tackle the wider sources in the environment from which diseases stem.

Improving women's access to existing health care services in Sanganer requires both general and specific measures. There are many recommendations pertaining to health sector reforms in developing countries and in India which are equally applicable here [Singh and Gupta 1997; Bhat 1993; Kothari 1989; Pachauri 1994; Jejeebhoy 1997; Ramachandran and Visaria 1997; Standing 1997, to name but a few). At the risk of repetition, I will outline a few points which emerge forcefully from the specific observations made in the paper. As health care is sought from a number of sources, even for a single illness, access can be improved by encouraging all types of health delivery activity, private, government and NGO, in a manner which recognises their specific strengths and weaknesses. So, for example, private health services while they are efficient and attentive to patients' problems, need to be made accountable in terms of the doctor's qualifications and with regard to the safety and ethical nature of the services offered. The government medical services, on the other hand, have to be made more sympathetic and more efficient. According to Jejeebhoy (1997), two reasons for the insensitivity of the services to women's needs and situations are because the services are designed centrally and based on demographic targets. Moreover, maternal health activities are unbalanced, focusing on immunisation and the provision of iron and folic acid rather than on sustained care of women or the detection and referral of high risk cases. Jejeebhoy emphasises the need for a greater client focus in a health and family planning programme which responds to women's requirements. Such a perspective could provide more and better services at home and involve a sympathetic and culturally sensitive probing of health problems.

In order to establish an effective referral network, I would suggest that as is the case with the government 'anganwadi' (childcare) schemes more emphasis should be given to locating and resourcing women and men within each village who are not just informed about matters of hygiene and basic medication such as the ANM or Jan Mangal couple but also about local health services (facilities, distance, cost, qualifications of doctors), health rights and statistics and the politics of health matters in general. Health workers such as ANMs should be committed women and men from among the local population and resourced in such a manner that their job gives them status in the area. This would enhance communication with the local elite as well as with men as husbands and kinspersons. Local health centres (at the primary and sub-centre level) need to compile basic health data pertaining to their area in order to be appropriately responsive to the household nature of health demands, an area where NGOs are particularly successful, precisely because of their local relationships built upon trust and their household knowledge which enables them to assess and react speedily to local situations [Ghosh 1994]. Government medical services need to be more transparent about the costs involved in meeting patients' health needs, and be more efficient through a 'trimming' of resources. One area where the input of resources compared to output in terms of patient utilisation is imbalanced is strikingly evident in the disproportionately large number of ayurvedic dispensaries. In this case, trimming could allow that funds be transferred to use in providing other health care services within the hospital. Government health care in the 'zenana' (womens') hospitals could be more effective if attention is paid to the customer friendly side of their services with perhaps the appointment of a welfare/liaison officer who is available to inform, answer queries, and present cases to the doctor.

There is no doubt that the villagers in Sanganer want and need access to good health care services as is reflected in the high costs they incur as well as the distances they travel to seek out effective health cures. At the same time most of their experiences with the health services on offer have been negative, and given the exacting nature of their lives, women especially have a tendency towards inaction as far as seeking treatment for illness is concerned. At the same time, given reliable information about effective cures and doctors, women are quickly willing to explore the possibilities of seeking treatment from these sources, provided they have some support from their kinspersons to do so.

Notes

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1 The term reproductive health is used, following the definition used in Gittelsohn et al (1994) to mean that people have the ability to reproduce as well as to regulate their fertility safely and effectively; pregnancy and the outcome of pregnancy are successful in terms of maternal and infant well-being, including the child's development to its full potential; and couples are able to understand and enjoy their sexuality, free of the fear of unwanted pregnancies and of contracting disease (8, 1994).

2 Jaipur district has a rural population of 2.8 million persons (of a total of 4.7 million people) living in a little over its 3,000 villages (1991 Census figures). The work was carried out in Sanganer tehsil which has a population of 8,404 Muslims out of the 3,81,214 Muslims in the district as a whole (1991 Census figures on religion). The material presented in the paper is based on two Sunni, Nagori Muslim dominated villages in the north-eastern part of the tehsil, which together have a population, roughly estimated by me to be around 5,000 Muslims. As a researcher I was based at the Khejri Sarvodaya Voluntary Health Centre in the area.

3 The material presented in the paper is part of a wider project which is concerned with women and men's access to health care services in three villages and one urban slum in Sanganer/ Jaipur. All the villages mentioned in the paper have recently (since 1994) become part of the urban municipality; however, there has been no perceived change in the villagers' lifestyles and for all purposes they regard themselves as rural in contrast to urban people 'of the city'.

4 The international conference on Population and Development held in Cairo in 1994 is significant for its orientation towards sexual and reproductive health rather than population growth which in turn has been responsible for a shift in international and national policies, away from a narrow focus on fertility control.

5 See for example, newsletter and material produced by Chetna, Ahmedabad or the Anubhav case studies [compiled in Pachauri 1994] or the self-help training manual *Na Shariram Nadhi* supported by Asmita [Sabala and Kranti 1995] women's resource centre as also Pal 1997 for empowerment work in slums in Jaipur.

6 The assistance of A K Banerjee, director of the voluntary health centre, with the technical, medical information presented here is gratefully acknowledged.

7 South Asia is thought to have the highest maternal mortality rates in the world [NFHS-India) with 27 per cent of all maternal deaths occurring in India [Unicef 1991]. The Indian average maternal mortality rate is estimated at 437 deaths per hundred thousand live births (NFHS-India: 1992-93) for two years preceding the NFHS survey. Due to large sampling errors, no figures could be made available for individual states or population subgroups (1995, 226). In India, maternal deaths account for 10 per cent of all deaths among women in the reproductive age and 13.2 per cent of all deaths among rural women were maternal deaths in 1987 (Unicef 1991). The main causes of death have been identified as due to haemorrhage (16-22 per cent), toxaemia (10-12 per cent), sepsis (8-13 per cent), abortion complications (10 per cent), anaemia (17-25 per cent) [Registrar General 1987, as quoted in Jejeebhoy 1997]. There is an equally high presence of reproductive morbidity, obstetric and gynaecological, especially to do with reproductive tract infections [for example, Bang and Bang 1989].

8 Information on male circumcision ('musulmani', 'khatna, sunnat banani') revealed that only in very few cases did an infection develop which was then contained. Although if one considers the periods of high infant mortality with the preferred periods when circumcision takes place, a correlation does seem to arise. Circumcision is done preferably in the first to third month after birth or in the second or fifth year. Moreover, there is an added risk of tetanus infection as the foreskin which is held in place by a bamboo shaft, is cut by a blade or scissor. However, the deaths due to tetanus reported by the women were all believed to result from the cutting of the umbilical cord ('olnaal ki nalli' tube of the placenta) rather than due to circumcision.

9 The RMP qualification is available to anyone who fills in an application for a small sum. No attested documents are required to be sent and there is no check on the actual establishment or quality of the practice.

10 Since the last three years, with the opening of a voluntary health centre close to the Nagori village women have also the option of using the services of the gynaecologist at the centre. Three times as many women use the centre compared to men (the men are mostly older men). Women tend to come together and bring sick children, girls and boys, with them On an average 450 patients visit the centre each month.

11 According to NFHS findings, in Rajasthan infant mortality rates fall from 76 per 1,000 births with no care, to 71 per 1,000 for births with either antenatal or delivery care, and to 45 per 1,000 for births with both antenatal and delivery care (1995:137).

12 For the first few days after delivery, mothers drink milk (1-2 glasses to half a kilo each day) and once a day eat a small proportion of 'healthy' milk enhancing ('doodh badhane') foods such as coconut or khopra (upto 1/2 kilo), asafoetida (1/4 – 1/2 kilo), thuli (broken wheat porridge with lentils), molasses, clarified butter (between 2-5/6 kilos) mixed in either milk, wheatflour ('maun ki roti'), seera (weak wheat flour porridge), halwa (wheat flour sweet-meat) or a mixture of these ingredients in the form of a ladoo (sweat-meat ball). Some women also mentioned sonth (1/4 kilo) and almonds (1/4 kilo). Only a couple of women ate an egg for 2-4 days and one or two Muslim women mentioned eating meat, especially goat's head believed to strengthen the infants' neck through the breast-feed. At approximately two weeks after child-birth, the foods ingested were 'thuli', 'khichdi', 'halwa', with roti-dal for at least one meal and 20-30 days afterwards regular food was resumed.

13 For a number of cases where problems were long-standing, usually non-reproduction related, treatment was sought in intermittent periods and stopped the moment the patient was better for a while.

14 This observation is similar to Bhat's findings that the spending on health care as a proportion of total consumption is quite significant, with a larger proportion of the expenditure borne by the household sector rather than the government (1993:48). Furthermore, as Bhat observes, there is no indication that the high costs have discouraged the use of private facilities in favour of public facilities

15 One of 47 Nagori women currently uses the Copper-T or any IUD, five of the 47 women were sterilised (two had husbands who had undergone vasectomies); each has four to seven children of the desired mix and are aged between 30-40 years. Two other women have consulted a doctor about an 'operation'.

16 For a discussion on agency see Dissanayake 1996, Carter 1995, Agarwal 1994, Unnithan and Srivastava 1997. Carter is critical of the use the notion of agency as divorced from culture.

17 Lingam (1995) argues that the focus on reproductive rights to the exclusion of women's social, economic and political rights, is a limited one. Powered by western consumerism and north-south inequalities such a perspective is in danger of reinforcing the view of women mainly as biological agents.

18 Unlike Sheikh women in Jeffrey and Jeffrey's study, Nagori Sheikh women were neither hostile to sterilisation nor generally open to any other methods of fertility control.

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Will the Right Monetary Aggregate for India Please Stand Up?

Raghbendra Jha
Ibotombi S Longjam

This paper re-examines the monetary aggregation procedure in India in the context of the new monetary aggregates proposed by the Third Working Group of the Reserve Bank of India.

I Introduction

IN the wake up of the new monetary aggregates proposed by the new (Third) Working Group of the Reserve Bank of India in 1997-98 [Reserve Bank of India 1998], the practice of adopting the simple sum procedure of monetary aggregation needs to be reviewed.[1] Some criticisms of this approach are well known in the debate on the substitutability/complementary relationship of monetary assets and have attracted a great deal of attention in the literature. The first criticism is that theory would require that the constituents sought to be aggregated should first be shown to be mutually (weakly) separable. If this condition is not satisfied, we cannot have a consistent and meaningful aggregation of money stock.

Second, even if the monetary asset group happens to be weakly separable, there may be no basis for adopting the simple sum procedure. In the literature, there is widespread criticism of adopting simple sum methods in monetary aggregation. The most important reason for this is that the simple sum procedure treats all the included monetary assets as alike in their 'moneyness' and implicitly assumes that all the component assets are perfect substitutes. But in reality, it is highly unlikely that all the included assets would have identical monetary attributes. As Barnett (1980) argues, "if one wished to obtain an aggregate of transportation vehicles, one would never aggregate by simple summation over the physical units, of say, subway trains and roller-skates. Instead, one could construct a quantity index using weights based upon the values of the different modes of transportation."

In much of the current work the Divisia index has been found to be a desirable monetary aggregate in the sense of approximating flexible functions in aggregation theory. An important factor guiding the choice of the components to be included in the Divisia index is the desire by its proponents to prove the superiority of the Divisia index to the simple sum. Notwithstanding this, the literature in the Indian context [see, for example, Subrahmanyam and Swamy 1991, Ramchandran and Kamaiah 1994] have constructed Divisia aggregates using the same components as those to form the 'preferred' simple sum-aggregates, rather than on the basis of components that are weakly separable. The competition is thus biased at the outset in favour of simple sum aggregates.

Divisia indices are constructed on the basis of consumer demand theory by finding out the exact aggregation of weakly separable assets. Barnett (1982) points out that an aggregate of monetary assets should be determined only if they, in addition to separability, also satisfy consistency and existence conditions. Violations of these conditions will lead to the constituents of the monetary aggregates having spurious and unstable relationships which will, in turn, lead to the aggregate being less than useful.

Motivated by these criticisms, we re-examine the monetary aggregation procedure in India. The paper is organised as follows. In Section II we briefly review the literature on monetary aggregation theory with the simple sum as its special case and look for alternative monetary aggregates. In Section III we go into the underlying theory of relations of monetary aggregation and separability by taking a translog utility function of the monetary assets. We estimate a demand system and conduct tests for the weakly separability for plausible asset groupings to identify admissible groups in Section V, based on the available data which are mentioned in Section IV. We conclude the paper in Section VI.

II Monetary Aggregates and the Simple Sum

The issue of money and other monetary assets substitutability/complementary relationship has attracted a great deal of attention in the literature. Based on the theory of consumer demand, several papers have attempted to estimate the degree of substitutability among monetary assets, with Chetty (1969) advancing the notion of 'moneyness' in the choice of components of a suitable monetary aggregate. Most economists have placed little faith in broad monetary aggregates, since summation aggregation has long seemed inappropriate at high levels of aggregations over imperfect substitutes. As Friedman and Schwartz (1970) conjecture, the general approach that regards each monetary asset with varying degree of 'moneyness' deserves more attention than its special case – the simple sum approach in the construction of a sensible monetary aggregate. A number of interesting papers including Barnett (1980, 1982, 1984, 1990), Ewis and Fisher (1984, 1985), Serletis and Robb (1986) attempt to estimate the degree of substitutability among the monetary assets. Some have used constrained and others unconstrained flexible functional forms.

Simple sum is the practice that most central banks adopt as they find it practically easier to evaluate. This approach, however, contradicts the practice of other economic measurements like index numbers to measure the flow of monetary services provided by the stock of monetary assets. Belongia and Chrystel (1991) emphasise Barnett's point that a simple sum cannot internalise pure substitution effect and hence can change even if there has been no change in monetary service flows. In principle, anything that currently does or might potentially provide monetary services should be included. In other words, a broad set of financial assets should be considered. This not only makes it more like the 'envelope' approach taking full account of the portfolio adjustments associated with shifts in the yield curve, but also allows the impact of financial innovations to be absorbed [Ford, Peng and Mullineux 1992]. Another important issue in monetary aggregation is the question of choosing the monetary assets to be grouped and fixing a proper superlative index. Following Barnett's steps, the set of the monetary assets that satisfies both the consistency

and existency conditions should be determined. Then using the user costs prices for each component asset, a superlative quantitative index over the admissible group can be computed.[2]

One of the objectives of this paper is to discover the structure of degree of 'moneyness' of the monetary assets by testing the condition for weak separability. The standard procedure in the literature in this regard is to use flexible functional forms to approximate unknown aggregators. The advantage of this method is that the demand systems equations corresponding to this functional form can approximate (up to first and second order derivatives) the demand system equations that are derived from the unknown utility function of the representative consumer. In this paper, the tests for the appropriateness of the weak separability conditions have been conducted by using static models. We use the translog functional form as proposed by Christensen, Jorgenson and Lau (1975). This form is relatively attractive in the sense that it does not restrict the values of the elasticities of substitutions and does not impose undesirable a *priori* restrictions.

III
Monetary Aggregation and Separability

Suppose there is a set M of N monetary assets x_i, $i = 1,\dots, N$. An admissible grouping will be one such that it is consistent and separable (from others). The separability condition implies that some subset, say, M_1 is a weakly separable block, i e, the marginal rate of substitution between any two assets in the subgroup M_1 is independent of any other asset which is not in M_1. The consistency condition is that the elasticity of substitution between any two assets in M_1 is independent of any other asset not in M_1. Suppose the utility function f(x) of the inputs x_i for $i = 1,\dots, N$ takes the translog functional form.[3] Then,

$$\ln U = \ln\alpha_0 + \Sigma_{i=1}\alpha_i \ln\pi_i + 1/2\Sigma_{i=1}\Sigma_{j=1}\gamma_{ij} \ln \pi_i \ln \pi_j \quad \dots(1)$$

where $\pi_i = (R - r_i)/(1 + R)$ is the user cost of the i th asset, R being the rate of the bench mark rate and r_i's are the own rate of asset i th. The translog functional form is a widely used model for its strength in estimating the precise elasticities of substitution.[4]

Normally, one does not estimate the direct translog functional form given in the equation. We take an indirect utility function, say $H(v_1, v_2,\dots, v_n)$ where v_i's are expenditure normalised user costs of the financial assets x_i. We apply Roy's Identity to the equation such that the budget share of each asset i is given by,

$$S_j = (\alpha_j + \Sigma_i \gamma_{ij} \ln v_i)/\alpha + \Sigma_i \gamma_i \ln v_i) \quad \dots(2)$$

where $\alpha = \Sigma_j \alpha_j$, $\gamma_i = \Sigma_j \gamma_{ij}$

and S_j measures the cost share attributed to the restrictions the i th monetary asset, which is

$$S_j = \gamma_{ij}/\Sigma_{j=1} \pi_j x_j. \quad \dots(3)$$

We wish to estimate equation (2). Since the share equations are homogeneous of degree zero in the parameters we use the usual normalisation of the parameters:

$$\Sigma_j\alpha_j = -1.$$

The next logical question is: what assets should be selected and how should they be grouped? There are a large number of assets to be put into separate groups. Instead of a priori assignments to separate groups, one can put those assets that are (weakly) separable, as a group, from other assets into one group. This is achieved by testing for weak separability of assets in the consumer's preference structure. The practical importance of separability results from three facts: (a) separability provides the fundamental linkage between aggregation over goods and the maximisation principles in economic theory; (b) separability provides the theoretical basis for partitioning the economy's structure into sectors; and (c) separability provides a theoretical hypothesis, which can produce powerful parameter restrictions, permitting great simplification in estimation of large demand systems.[5]

Once the demand system is estimated, the separability test can be carried out by testing the validity of the weak separability restrictions imposed on the parameters, α_i and γ_{ij}. In our present case there are three financial assets x_i for $i = 1, 2, 3$. Suppose two of them say x_1 and x_2 are separable from the rest of the assets, then U takes the special form

$$\ln U = f[\ln G_1(\ln x_1, \ln x_2), \ln x_3]$$

The selection of an admissible group of financial assets is based on the theoretical restriction of the aggregator function of the various financial assets. Testing for separability takes the form discussed in Denny and Fuss (1977). According to this test, the hypothesis that the assets x1 and x2 are separable in the utility function with three assets x1, x2 and x3, implies the following restrictions:

$$\alpha_i \gamma_{j1} - \alpha_j \gamma_{i1} = 0 \text{ for } i \neq j,\ i, j = 1, 2, 3.$$
$$\alpha_i \gamma_{j2} - \alpha_j \gamma_{i2} = 0 \text{ for } i \neq j,\ i, j = 1, 2, 3.$$

These restrictions can be tested empirically. Denny and Fuss further argue that this is identical with the Berndt-Christensen (1974) non-linear restrictions. In our case the test will be with reference to alternative monetary assets.

Before we test for weak separability, it is essential to examine for the consistency of the parameters that are maximising the utility function. We need to test the validity of the functional and theoretical form of restrictions, which are known as the integrability conditions.[6] Because of our construction the adding up requirement is easily satisfied, as sum of the shares S_i is 1 and hence we need to estimate only n-1 equations. The existence of the symmetry of Slutsky's cross partial derivatives can be checked by testing for the restriction $\gamma_{ij} = \gamma_{ji}$ for $i \neq j$, $i, j = 1,\dots,n$. Since the shares themselves are non-negative, the positivity condition is also valid. The curvature conditions (necessary but not sufficient for the Hicksian matrix to be negative semi definite, and hence the second order conditions for utility maximisation to be satisfied) is that the own elasticities of substitution must all be non-positive. Next we need to consider the functional form restrictions which require that the linear homogeneity condition be satisfied, i e, $\Sigma_j\gamma_{ij} = \Sigma_i\gamma_{ji} = 0$. Given that $\Sigma_j\alpha_j = -1$ also implies $\gamma_{ij} = \gamma_{ji}$. Allen-Uzawa elasticities determine the monotonocity conditions which require that the own price elasticities of substitutions be strictly non-positive.

IV
Data

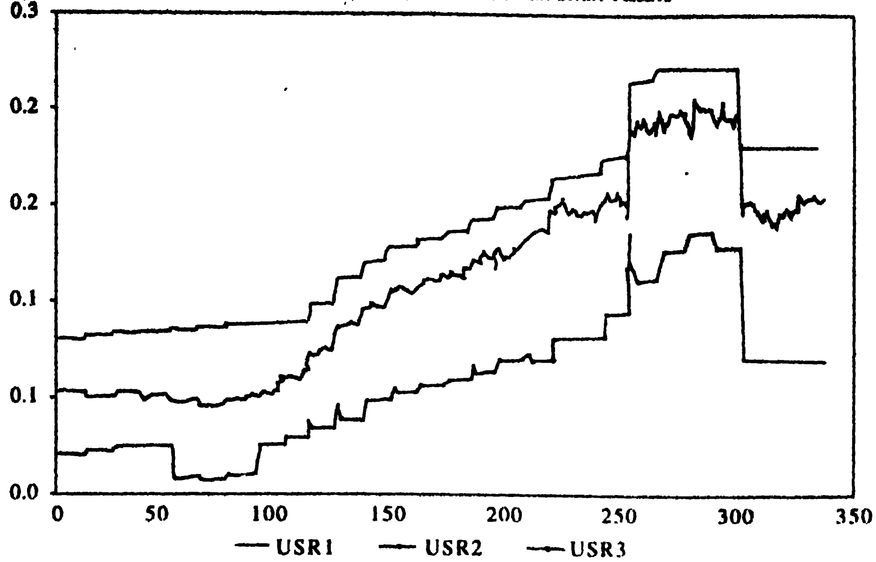
A monthly time series of the components of the stocks of money M_0, M_1 and M_3 are taken from the Report of the Third Working Group [Reserve Bank of India 1998]. This data set consists of the currency in circulation, currency with public, reserves of the banks, demand deposits and time deposits over the period March 1970 to February 1998 (number of observations is 336). We are reconsidering the monetary aggregation of these assets into (typically) the M_1, the M_3 as per definitions of RBI. In particular, we focus on the broad money aggregate, M_3.

TABLE 1: MONETARY AGGREGATES AND THEIR COMPONENTS

Instrument	Yield
Currency with the public (x_1)	Zero
Demand deposits (x_2)	Klein's rate
Time deposits (x_3)	One-year bank deposits

Source: *Reports on Currency and Finance*, RBI.

Figure 1: The User Costs of the Monetary Assets



As far as the selection of interest rates is concerned, one needs to be careful because interest rates play a crucial role since the user costs – the opportunity costs of forgoing the benchmark asset – are calculated from their own rates relative to a benchmark rate. In this regard, the Central Bank does not show what interest rates have been chosen and the criteria for this choice. Since a regular measurement of own interest rates of the particular monetary assets is not available, we take proxies. For currency the yield is assumed to be zero since currency does not give any returns and is meant for transactions only. We proxy the returns on demand deposits by using Klein's formula.[7] The yield on one-year bank deposits is taken as a proxy for the return on time deposits. The choice of proxy for the yield on the benchmark rate is crucial since this alone can vary the user costs. One also has to keep in mind that the user cost is non-negative. Generally, the highest of all the available returns is considered. We choose the yield on the debenture as the proxy for the benchmark rate.

V
Empirical Results

In the literature, it is found that Divisia indices are generally more effective than their simple sum counterparts indices in studies on money demand study or for direct policy purposes, particularly if the user costs of the different components fluctuate to any degree over the sample period of time. In the Figure 1 we graph the behaviour of the user costs of some of the monetary assets. In this figure USR1 refers to the user cost of currency, USR2 to the user cost of demand deposit and USR3 to the user cost of time deposit.

Differences among monetary aggregates can be traced to the particular specification used and to the choice of the components over which the aggregation takes place. Since user costs fluctuate, we should model money demand as a system. In this paper, we look for different alternative monetary assets by testing approximate weakly separable groups. First, the system of demand equations involving the user costs of monetary assets as the exogenous variables and the shares of the monetary assets in the total expenditure as the endogenous variables is estimated by using non-linear seemingly unrelated method. Then we check whether conditions of symmetry ($\gamma_{ij} = \gamma_{ji}$) and linear homogeneity ($\Sigma_j \gamma_{ij} = \Sigma_i \gamma_{ji} = 0$) are satisfied.[8] Then, in order to test for (mutual) weak separability we impose restrictions on the three monetary assets. We test for all the possible alternative groupings with different combinations of the assets. All the results of these hypotheses are reported in Table 2. Corresponding estimates for the restricted model are reported in Table 3.

Testing for weak separability involves

Table 4: Test Statistics for the Approximate Weak Separability Restrictions

Null Hypothesis	Restrictions	χ^2 Value Computed
$[(x_1, x_2), x_3]$	$\alpha_1/\alpha_2 = \gamma_{13}/\gamma_{23}$	99.87
$[(x_1, x_3), x_2]$	$\alpha_1/\alpha_3 = \gamma_{12}/\gamma_{32}$	17.754
$[(x_2, x_3), x_1]$	$\alpha_2/\alpha_3 = \gamma_{21}/\gamma_{31}$	65 884

Table 5: Estimated Own and Cross Price Elasticities

Elasticity	Estimate
η_{11}	-1.85366
η_{22}	-1.01028
η_{33}	-0.80339
η_{21}	-0.26056
η_{23}	-0.87758
η_{12}	-0.15149
η_{31}	3.463866
η_{13}	-1.27476
η_{32}	0.827509

Table 6: Estimated Elasticities of Substitutions

Assets	Currency (σ_{1i})	Demand Deposits (σ_{2i})	Time Deposits (σ_{3i})
Currency	-4.93499		
Demand deposits	-0.61905	-5.33796	
Time deposits	-4.88586	-4.13962	-0.7961[illegible]

Table 2: Parameter Estimates for the Indirect Translog Functions

Parameter	Unrestricted	With Symmetry	With Linear Homogeneity
α_1	-0 22 (-44.24)	-0.0548 (-2.9239)	-0.0474 (-2.568)
α_2	-0.192 (-78.45)	-0.0015 (-24.587)	-0.0016 (-24.34)
γ_{11}	0.0052 (0.28)	0.1913 (13.713)	
γ_{12}	-0.26 (-13.93)	0.0291 (3.6369)	-0.071 (-4 901)
γ_{13}	0.164 (17.89)	-0.0999 (-19.218)	
γ_{21}	-0.054 (-5.68)		0.0168 (6.651)
γ_{22}	-0.108 (-11.53)	0.0237 (3.5231)	0.0646 (6.387)
γ_{23}	0.08 (17.51)	-0.0467 (-17.844)	
γ_{31}	-0.079 (-8.65)		-0.0206 (-1.636)
γ_{32}	-0.14 (- 13.83)		-0.0012 (-0.156)
γ_{33}	0.0153 (7.33)	-0.0786 (-12.499)	-0 0666 (-12.201)

Note: Figures in parenthesis indicate t-values.

Table 3: Parameter Estimates of Restricted Model (Symmetry and Homogeneity)

Assets	Constants (α_i)	γ_{i1}	γ_{i2}	γ_{i3}
x_1	-0.0731	0.1381	0.0079	-0.0596
	(-5.3493)	(16 412)	(1.1478)	(-7.3657)
x_2	-0.14922		0.0124	-0.0271
	(-30.289)		(2.1179)	(-6.6479)
x_3				

Note: Figures in parenthesis indicate t-values.

computation of the value $\lambda = 2(\ln Un - \ln Ur)$ where $\ln Ur$ is the log likelihood value with the separability restriction and $\ln Un$ is the corresponding value without these restrictions. Under the null hypothesis that the restrictions hold λ will be distributed as a χ^2 with r degrees of freedom where r is the number of restrictions imposed. The last column of Table 4 indicates that the computed value, in each case, is much higher than the critical value of χ^2 even at the 1 per cent level of significance. Hence, in each case the separability restrictions are decisively rejected.

FIGURE 2A: DIVISA GROWTH RATES

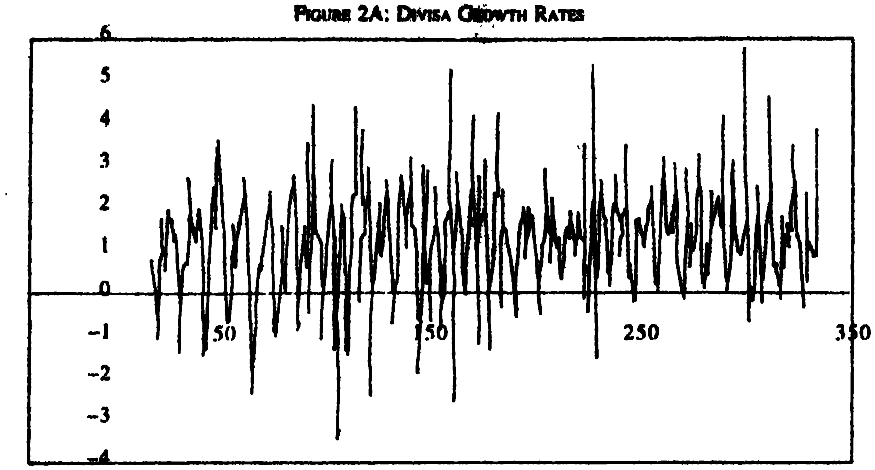


FIGURE 2B: SIMPLE SUM GROWTH RATES

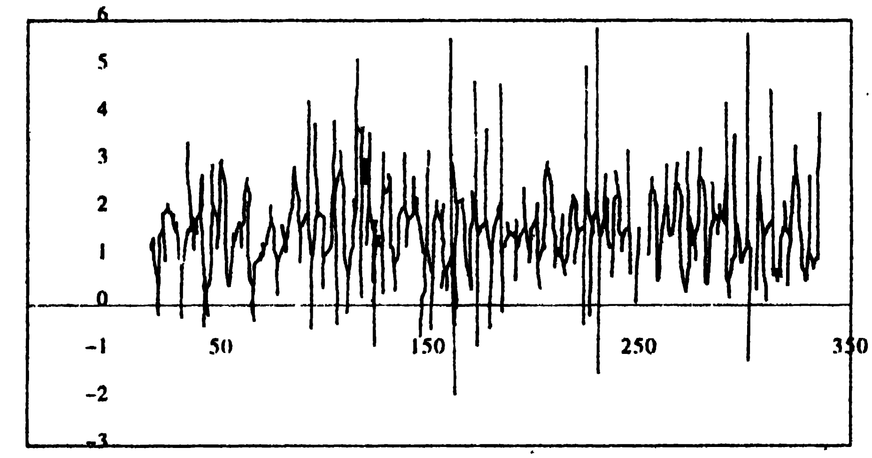
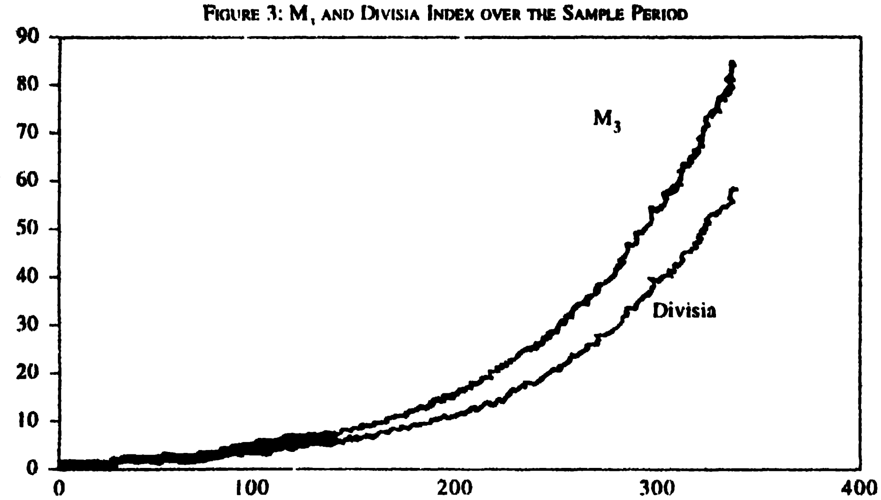


FIGURE 3: M_3 AND DIVISIA INDEX OVER THE SAMPLE PERIOD



We also compute the own and cross price elasticities with respect to the user prices. Once we get these elasticities we can derive the elasticities of substitution by using the Slutsky equation. The expenditure (income) elasticities from the indirect translog function (equation (1)) can be written as:

$$\varepsilon_i = 1 + (\partial \ln S_i/\partial \ln E) = 1 + \{[-\sum_j \gamma_{ij}/S_i] + \sum_i \sum_j \gamma_{ij}\}/(-1 + \sum_i \sum_j \gamma_{ij} \ln \pi_j^*)$$

where $E = \Sigma \pi_i x_i$.

The own price elasticities are:

$$\eta_{ii} = -1 + \partial \ln S_i/\partial \ln \pi_i = -1 + \{[\gamma_{ii}/S_i] - \sum_j \gamma_{ji}\}/(-1 + \sum_i \sum_j \gamma_{ji} \ln \pi_j^*)$$

whereas the cross price elasticities are:

$$\eta_{ij} = \partial \ln S_i/\partial \ln \pi_j = \{[\gamma_{ij}/S_i] - \sum_j \gamma_{ji}\}/(-1 + \sum_i \sum_j \gamma_{ji} \ln \pi_j^*)$$

Finally, the elasticity of substitution between assets i and j is, simply,

$$\sigma_{ij} = [\eta_{ij}/S_j] + \varepsilon_i$$

For simplicity, and without any loss of generality we take $\pi_j^* = 1$ so that $\ln \pi_j^* = 0$.[9] Own and cross price elasticities are reported in Table 5 whereas estimates of elasticity of substitution between different monetary aggregates are reported in Table 6. It is important to note that all own price elasticities are negative. The elasticities of substitution estimates indicate that the components of the monetary aggregates are, broadly, complementary to each other in the representative consumer's utility function.

The Divisia Index can be written as: $Dt = D_{t-1} \prod_{i=1}^{n} \left[\frac{x_{it}}{x_{i,t-1}}\right]^{w_{it}}$ where D_t is the Divisia index at time t of the monetary assets x_i and $w_{it} = (1/2)(S_{it} + S_{it-1})$, S_{it} being the budget share of asset x_i.

In Table 7 we report the correlation coefficient between Divisia and simple sum (M_3 figures) for the levels as well as rates of growth over the sample period. We find that, although the correlation is high, it is not perfect. The correlation in the growth rates is smaller. This is important to remember in the context of the fact that it is the growth rate that has been targeted. This is borne out in Figures 2A and 2B. Further, the simple sum is always higher and the gap between it and the Divisia index grows over time. This is also

TABLE 7: THE CORRELATION BETWEEN THE SIMPLE SUM AND DIVISIA INDEX

	Simple (Level)	Divisia (Level)	Simple (Growth)	Divisia (Growth)
Simple sum (level)	1			
Divisia index (level)	0.999921	1		
Simple sum (growth)			1	
Divisia index (growth)			0.899349	1

borne out in Figure 3 which graphs (scaled) values of the Divisia index and M_3 over the sample period. Hence, the errors in using the simple sum have been getting compounded over time

VI
Conclusions

In this paper we have re-examined the monetary asset groupings of the monetary aggregate of the Reserve Bank of India We estimate a system of demand equations of three monetary assets, namely, currency with public, demand deposits and time deposits The separability tests we conduct for various admissible monetary assets lead us to reject any independent grouping of two assets out of the rest Since we take a monthly data analysis, the result is robust

It should be noted, however, that the choice of proxies for benchmark rate and yields on other assets plays a crucial role Because the asset groups are neither equivalent to each other nor constant, we face the interesting question of the relative performance of the monetary assets over this period The nature of the differences among the monetary aggregates appears to depend on the particular specification used and upon the choice of the components over which the aggregation occurs This paper has argued that since separability condition is not satisfied, the Divisia would be a better index to use than the simple sum [10]

Notes

1 It is to be noted that the Third Working Group itself has not questioned the simple sum procedure
2 The superlative quantity index is the index which bridges the gap between statistical index theory and monetary aggregation theory
3 To permit the construction of a demand system which involves only the opportunity costs and quantities of the monetary assets we assume the utility function is functionally separable between monetary assets on the one hand and goods on the other
4 But as Barnett (1982) cautions this translog function is only effective in approximating at local points Barnett and Lee (1985) Barnett Lee and Wolfe (1987) use a more generalised Taylor's series expansion for producing globally functional form like Minflex translog and generalised Leontief functions to approximate the aggregator function globally The Fourier flexible function has global properties and is considered to be an essentially unbiased form [Gallant 1981]
5 The importance of separability tests is highlighted in Barnett and Choi (1989)
6 The complete set of conditions that have to be satisfied by satisfactory theoretical demand system equations are additivity, symmetry, linear homogeneity, positivity and monotonocity
7 The returns on demand deposits. R_D is given by $R_D = R_T(1 - \theta)$ where θ is the ratio of bank reserves to the demand deposits and R_T is the yield on the 91-days treasury bill
8 In our case as in much of the literature the symmetry and homogeneity restrictions are not satisfied
9 The translog functional form is an approximation of a Taylor series expansion at an arbitrary point π^* See Ewis and Fisher (1986)
10 For reasons of space we are not reporting the computed Divisia indices for the sample period here These are available from the for author

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Public-Private Partnerships for Urban Poor in Ahmedabad

A Slum Project

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This article examines public-private partnerships for the development of the urban poor, based on our experience of the Slum Networking Project in Ahmedabad. We examine three issues. The first concerns the reasons that impede public-private partnerships. The second is the tardy progress that the central and state governments have made in providing housing and employment to the urban poor. Why should the corporate sector join hands with government organisations and NGOs for the development of the urban poor? This is the third issue we discuss in this article.

ON April 19, 1997, the infrastructure component of the pilot project of a unique, not-for-profit slum upgrading experiment, the first of its kind in the city of Ahmedabad, was completed in just under 10 months. After settling his accounts with the implementing agency (the Strategic Help Alliance for Relief to Distressed Areas (SHARDA) Trust, promoted by Arvind Mills) the project contractor said to one of the trustees, "Now tell me. Why did Arvind really do this project?"

This comment and similar comments from others inspired us to write this article. Here we intend to examine the issue of public-private partnerships for the urban poor, through the case of the Slum Networking project[1] at Sanjay Nagar, Ahmedabad. Public-private partnerships are essential for solving major societal problems. In India, such partnerships are not very common because in the absence of a comprehensive institutional framework government/quasi-government and private organisations do not see the rationale for working together. The rationale is that there are far greater chances of success through co-operative activity than by going it alone. Our experience in this project shows the difficulties involved in working with the government and quasi-government organisations. We highlight these difficulties and analyse the reasons leading to them. We also attempt a thumbnail sketch of the pre-conditions for a workable public-private partnership for carrying out projects for the urban poor.

I
Project Details

Inception of the Project: In December 1994, Himanshu Parikh, an environment and infrastructure professional met Sanjay Lalbhai, MD, Arvind Mills. Parikh showed the Arvind management team the remarkable urban improvements achieved through the slum networking strategy demonstrated in Indore through the British government-sponsored Indore Habitat Project. Lalbhai and his team saw the project as an excellent way to improve the quality of life in Ahmedabad. They pledged Arvind Mills' support for a similar initiative in Ahmedabad, on a smaller 'pilot' scale.

Initially, Arvind Mills and the slum community were to be the two main partners in the pilot project. Soon after securing Arvind's commitment, Parikh approached the Ahmedabad Municipal Corporation (AMC) with the objective of launching a citywide project. The AMC was then headed by Keshav Varma, one of the most dynamic municipal commissioners in the city's recent history. Varma not only initiated a citywide project covering all of the city's slums, he also pledged the AMC's support to the pilot project. The population to be covered under the Pilot Project was subsequently doubled. The standing committee of the AMC gave its formal approval to the project on September 28, 1995. The ruling party, the Bharatiya Janata Party (BJP), christened the project Pandit Deendayal Upadhyaya Antyodaya Slum Networking Project after one of its most revered ideologues.

Objectives and Components: The three objectives of the pilot project were: (a) to improve the basic physical and non-physical infrastructure facilities within the selected slum areas, (b) to facilitate the process of community development, and (c) to build up a city level organisation for slum networking and infrastructure development. A two-pronged strategy was employed to improve the quality of life of the slum-dwellers. The first step was to improve their physical environment (the 'hardware') through the physical development component. The second step was to upgrade their level of health, education and skills for income generation (the 'software') through the community development component.

(a) Physical development: Initially, seven basic infrastructure services were to be installed: (1) roads and pavings, (2) individual water supply, (3) house to house underground sewerage, (4) storm water drainage, (5) street lighting, (6) solid waste management, and (7) landscaping. The intention was that the slum communities would build individual toilets on their own through the AMC's Low-Cost Sanitation Scheme. Subsequently, the AMC announced that it would "throw in a free toilet for each household" as a part of the project.

(b) Community development: After improving the physical environment, the idea was to quickly focus attention on the other needs. A socio-economic survey of Sanjay Nagar's residents indicated that the levels of basic health, literacy and skills are very low. The community development programme aimed at addressing these deficiencies, through the following activities: (1) setting up neighbourhood groups, women's groups and youth activities, (2) mobilising community savings for undertaking physical works as well as for credit through savings and loans groups, (3) initiating educational activities for pre-primary age children, school drop-outs and illiterate adults, (4) organising community health education and other interventions related to mother and child care, and (5) supporting income generating activities by providing vocational training and job access to unemployed persons. Developing linkages for formal sector finance to help people start small businesses and trades.

SHARDA Trust did not have the requisite organisation for carrying out the community development programme. Therefore, the main responsibility for this was given to SAATH, an Ahmedabad-based NGO which has been working with slum communities since 1989. During the project, the trust and SAATH had an on-

going dialogue regarding the strategy for carrying out the community development programme.

Cost-Sharing Formula: With the inclusion of the AMC and SAATH, the pilot project underwent considerable modification. Each participant organisation would share a part of the cost of one or the other component. This ensured that the burden did not fall on any one organisation. Further, with each slum household making a financial contribution, the slum-dwellers ceased to be 'beneficiaries' of a 'welfare' programme. They became stakeholders in the project. The final cost-sharing formula is shown in Table 1.

The pilot project was to cover 3,300 households residing in slums and chawls in four pockets of the city as given in Table 2. Soon after the AMC's approval, however, the residents of Sankalchand Mukhi Ni Chali and Kachwadi Ni Chali/ Santokbai Ni Chali decided, for various reasons, that they did not want to participate. The resource mobilisation for the other two slums was initiated immediately. At the time of preparing tenders, the Pravinnagar-Guptanagar residents had not mobilised the requisite financial resources, the community at Sanjay Nagar had. It was decided to go ahead only with Sanjay Nagar, to begin with. The ground-breaking ceremony was held on August 5, 1996. Construction began soon after.

Sanjay Nagar: It is located on a 1.75 hectare plot of land owned by the AMC. The population of Sanjay Nagar is approximately 1,200, comprising 181 households. Most of the residents belong to the 'Vaghri-Patni' community. The major occupation is retail vending of vegetables and fruits. The community is characterised by low levels of education, low skills and poor health. The average number of persons per household is 6.26, higher than the all-India average. Over 51 per cent of the community is illiterate. More than two-thirds of the deaths in Sanjay Nagar are in the age group 0 to 4 years. Only 37 per cent of the community is engaged in some occupation or the other, of which only 15 per cent have salaried jobs, while 51 per cent are vendors. Before the project, there was virtually no physical infrastructure, save for three public standposts and two blocks of public toilets. Without security of tenure, the community had not invested in permanent shelters. Their houses were constructed of temporary materials like mud and plastic sheets. The average amount of living space per person in Sanjay Nagar is 4.72 sq mt.

Rationale for Arvind Mill's Participation: There are two reasons for Arvind's participation in the slum networking project. Enlightened self-interest is the first reason. Following the dictates of the organisational philosophy is the second.

Arvind's investment in Ahmedabad, as on March 31, 1997, was about 8.5 bn rupees. By December 1998, this investment will increase to approximately 15 bn rupees. Also, Arvind is getting the characteristics of a global company, and therefore must attract the most talented people in the world to work with it. To do so, the 'quality of life' in Ahmedabad, the company's headquarters must be of international standards. This would not be possible when 40 per cent of the city's population resides in slums. Although Arvind alone cannot solve this gigantic problem, it can work with the AMC to establish the feasibility of upgrading slums. This was the enlightened self-interest that made Arvind commit itself to co-financing and implementing the pilot project. Arvind Mills has also proactively participated in other city improvement projects in Ahmedabad, viz, the Rs 4 crore C G Road Redevelopment Project and the Rs 1.25 crore beautification projects for the Sardarbaug and Airport Gardens.

Serving people, particularly the lesser fortunate, has been a dominant value in the Indian society, which in turn has influenced Arvind's philosophy. Since their very inception, the Lalbhai Group of Companies (of which Arvind is the flagship company) have been involved in a host of activities beyond mainstream business in the city of Ahmedabad. The city's first mayor, Chinubhai Chimanbhai, was from the Lalbhai family.

'Ground Rules' of the Project: There were no legal agreements between the partners of the project. The 'ground rules' were alluded to in the resolution passed by the AMC during project approval. Fine-tuning of these rules and the partners' roles was done as the project progressed. The lack of explicit definition of organisational and individual roles caused many problems during implementation.

(A) Resolution passed by AMC: The AMC document[2] clearly stated that in the pilot project, the AMC was to take a 'backseat' role while the main responsibility was to be shouldered by Arvind Mills. It said "In the matter of seeking the Standing Committee's approval for the implementation of the slum networking project in a phased manner to provide civic amenities and improve the quality of life of people living in slums and chawls in Ahmedabad city, in collaboration with industrial houses and voluntary organisations, *and the Corporation playing the role of 'facilitator'*,..." (emphasis ours). It goes on to say that "...Although over the years the Municipal Corporation has provided various basic amenities to slum dwellers, *it has not helped much in improving their conditions.* With increasing population the problems are getting serious. This has necessitated looking into their problems and working out an action plan to solve them" (emphasis ours).

The same letter contains two points for approval, alluding to the role of Arvind Mills and other interested business houses: "(1) To encourage private sector participation in the project by permitting

TABLE 2 PARTICIPANT SLUM COMMUNITIES
(AS PER PILOT PROJECT PROPOSAL)

Sr No	Name of Slum	Zone	Number of Households (approx)
1	Sanjay Nagar Na Chhapra (near Anil Starch	North	200
2	Sankalchand Mukhi Ni Chali (Behrampura)	Central	500
3	Pravinnagar-Guptanagar (Vasna)	West	1500
4	Kachwadi Ni Chali and Santokbai Ni Chali (Chamanpura)	North	1100
	Total number of households		3300

TABLE 1 COST-SHARED IN PILOT PROJECT

Cost Component	Cost Per Family (Rs)	Participating Organisations' Share (Per Cent) AMC	Slum Communities	Arvind Mills	SAATH
Physical development	6000	33.33	33.33	33.33	0
Physical survey	30	100	0	0	0
Design and consultancy	120	100	0	0	0
Establishment	330	70	0	30	0
Community development	1000*	70	0	0	30
Community corpus	100	0	100	0	0
Total expenses per family (Rs)	7,580	3,081	2,100	2,099	300
Cost for 3300 families (Rs lakh)	250 14	101 67	69 30	69.27	9.90

Note: * This amount was sufficient to run the community development programme in Sanjay Nagar for about one year. SAATH decided to run the programme for a total of three years. The cost of carrying out the programme for an additional two years will be met out of SAATH's own funds.

interested industries to manage and implement the provision of services in groups of slums and chawls. (2) To implement the pilot project with The Arvind Mills Ltd, Himanshu Parikh, 'Saath' and the Ahmedabad Municipal Corporation, *under the supervision of the management of The Arvind Mills Ltd...*" (emphasis ours).

(B) Letters from the deputy municipal commissioner: SHARDA Trust desired that some operating procedures be clarified, so as to avoid difficulties in the future. Numerous letters issued by the deputy municipal commissioner in charge of the project, partly fulfilled this requirement. For example, since the trust would be making payments for the project on behalf of the AMC, a bill certification procedure had to be worked out. SHARDA Trust attempted, albeit unsuccessfully, to clarify these issues directly with the functionaries of the AMC's slum networking project (SNP) Cell. The deputy commissioner wrote to SHARDA Trust, and clarified the matter: "..As regards the certification of the bills it may be stated that *as the entire project is to be executed by the SHARDA Trust the bills may be certified by the Trust itself.* However, two engineers of the AMC (SNP Cell) will be with you who would verify the bills of the works carried out so as to make it easy for the AMC to satisfy the Audit Department in future. *All the bills may then be passed by the SHARDA Trust without any sanction of the AMC We may only be informed about the bills sanctioned for our record*"[3] (emphasis ours).

II
Assessment

Successes of the Project

The major successes the SHARDA Trust achieved in this project are three. First, it provided the basic infrastructure of good quality at low cost. Second, it stayed within the budget. Third, it caused all the changes in Sanjay Nagar through people's participation.

In a settlement devoid of any basic infrastructure, the project created infrastructure of good quality. Table 3 gives a clear picture about the infrastructure created in the area.

Table 3: Infrastructure Created in Sanjay Nagar

Type of Infrastructure	Units	Quantity
Pathways	Kms	1,000
Electric poles	Number	18
Sewerage	Kms	1,184
Manholes	Number	9
Inspection chambers	Number	46
Gully traps	Number	181
Water supply lines		
Main pipe line	Metres	700
Connecting line	Metres	750

(A) Quality: By 'quality' of the installed infrastructure, we mean its performance standards. SHARDA Trust believes that quality must be defined from the user's point of view. We elaborate these quality standards, from the users' point of view, for water supply, sewerage and storm water drainage.

The water supply: design had to ensure (1) an adequate quantity of water to each household; (2) 70 per cent of the water supplied in the morning, and (3) water pressure equal in each household during supply time. The sewerage: design had to ensure that there would be no blockages in the main line within the slum. Blockages within individual gully traps should not disturb the flow of sewerage in the main lines. The storm water drainage: design had to ensure that the storm water would run off the site and into the city-level mains within the least possible time. No ponding should occur on any surface of the settlement.

The actual performance of the installed infrastructure has been satisfactory. Sanjay Nagar receives about 120 lpcd of water supplied by the AMC's Asarwa housing tubewell station. Water is supplied from 6 am to 8 am. Effectively, water is received for about one hour and forty-five minutes. The pressure in the main line is about 1.25 psi. The main water tap in each house is at a height of two feet from the ground. It takes about 50 seconds to fill a bucket of 15 litres capacity. Thus, the requirements of quantity are fulfilled in about one hour. Till now, there have been no complaints regarding the quantity of water supplied. The water supplied by the AMC is chlorinated and tested for pH level, inorganic and particulate matter. For drinking purpose, the residents filter the water with a cloth or fine mesh. Till now, no blockage of sewerage main lines within Sanjay Nagar has been reported. The monsoon of 1997 in Ahmedabad was short but intense. While the areas in the immediate vicinity of Sanjay Nagar experienced water-logging, due to problems in the city-level mains, all areas within Sanjay Nagar remained dry. No ponding has been observed on any internal surfaces.

The infrastructure has been in operation since April 1997. The 'networking' strategy implies that the performance of on-site water supply and sewerage would largely be determined by the performance of the AMC's feeder infrastructure. Fortunately, for water supply, the performance of the feeder infrastructure is satisfactory. Otherwise, the trust would have 'topped up' the on-site infrastructure so as to meet the requisite standards.

(B) Cost: With no compromise in quality or performance, the choice of materials and engineering techniques employed in slum networking brings down the cost of infrastructure considerably, in comparison to conventional materials and techniques used by most government/quasi-government bodies. Table 4 shows a comparison of the actual costs incurred in the Sanjay Nagar project versus the estimated costs of a conventional approach.

The project stayed within the budget estimate for on-site infrastructure. In the tender, the cost estimates for on-site infrastructure was Rs 6,110 per household. After completion, the actual cost worked out to be Rs 6,171 per household. This was despite considerable unanticipated extra work.

The Sanjay Nagar community was a party to every major decision related to the project. From the design of infrastructure to the payment of contractors' bills, community representatives were consulted at each step. This was the method used in changing Sanjay Nagar's physical surroundings. Consequently, the residents of Sanjay Nagar voluntarily realigned and readjusted their houses to widen the roads. The residents of Sanjay Nagar have also formed and registered the 'Sanjay Nagar Residents' Association', a non-trading corporation. One of the first activities of the Residents' Association was to mobilise and manage a community corpus of Rs 100 per household, for maintenance of the on-site infrastructure. Most households have upgraded their shelters by themselves and out of their own funds.

Reasons for Successes

Cost efficiency at Sanjay Nagar was due to three reasons. First was the design, which sought to limit the cost without compromising on quality. This was achieved through innovative techniques and use of unconventional material. For example, the use of *in-situ* cement concrete for roads instead of the conventional flagstone paving results in a saving of over Rs 1,000 per household.[4] (See Table 4). Also, gully traps and small inspection chambers were used instead of large manholes. Similarly, the roads were given slopes, causing storm water to run off through gravity. This altogether eliminated the need for an underground storm water drainage system.

Efficiency in execution and supervision was the second reason. The trust steadfastly adhered to the design once all the partners had approved it. Perfect rapport between

the executing agency and the project contractor also helped to minimise costs. SHARDA Trust facilitated the contractor by providing him with working capital and helping him to acquireconstruction material. There were many occasions when the contractor could easily justify suspending the construction. But the Sanjay Nagar contractor continued to work, aiming at consistent quality and remaining within the estimates.

To avoid cost overruns resulting from delay, SHARDA Trust ensured that the work was not interrupted for lack of funds. To start the work on time, the Trust arranged for a loan of the required capital from the Arvind mills. Again, it persuaded SEWA Bank to grant loans to the residents to enable them to meet their financial obligations. To avoid delay, the Trust decided to temporarily underwrite the residents' contribution for individual power connection.

Failures of the Project

Despite these efforts, there are three major failures of the project. The first is delay in completing the pilot project. Very little achievement in community development is the second. The third failure is the organisations' inability to seek industry's participation in the citywide slum networking project. Particularly distressing is this failure, considering the remarkable success of the Sanjay Nagar project.

SHARDA Trust had planned to upgrade 3,300 slum households by December 1997. Till date, the Trust has upgraded only 181 households. Because of this, the Trust's administrative cost appears very high, even though it kept the overheads to the bare minimum. If the Trust had upgraded more slums, then the project overheads would not have appeared high, as shown in Table 5. However, because of problems with the alliance, it was not possible to cover the 3,300 households as planned in the pilot project.

Low level of achievement in community development was a major failure of the project. In SAATH's plan for community development, community health received the maximum attention followed by non-formal education related activities. In the area of skill formation and income generation, the NGO was not quite clear about what in practical terms it intended to do. Towards creating community organisations the NGO planned to move rather cautiously. Although the classes for preschool children started functioning as early as October 1996, nothing could be done to impart education to non-school going children, school dropouts and adults. Also, the number of preschool children attending the classes remained confined to 20 against the target of 30 fixed for the first year. Another significant shortfall in the target related to the number of teachers receiving training for activities in the component-two against four planned.

Achievement in the realm of skill development and income generation was even less impressive. Work started without clear thinking in this regard and little clarity seems to have developed even after over a year and a half. The picture about community organisation was no better. While the Sanjay Nagar Residents' Association was formed in January 1997 to facilitate the physical upgrading work, the women and youth fora are still nowhere in sight.

Arvind Mills gave strong support to this project. However, even Arvind's management is not keen to participate in this project on a wider scale. The cost Arvind incurs in upgrading slums is a charge on its profit before tax. The company is not able to complete the pilot project because of the AMC's bureaucratic hurdles. Therefore, the chances of other Ahmedabad industries' participation in this project are now slim. To date, only the Lions'

Table 6: Ahmedabad Municipal Corporation's Response Time

SHARDA Trust's Request for	Response Time in Days
Issuing of drawing showing final plot boundary of Sanjay Nagar	150
Verification of surveyor's second bill	71
Removal of public toilet	60
Removal of encroachments	60
Issuing policy letter on slum dwellers' contribution	70
Certifying accounts (engineering work) that SHARDA Trust submitted, the first submission being in November 1996	425

Table 4: Comparison of Cost of Infrastructure Installed under Slum Networking vs Conventional Method

Component	Conventional Method		Slum Networking		Difference	Savings
	Features	Cost per HH (Rs)	Features	Cost per HH (Rs)	in cost (Rs per HH)	(Per Cent)
Roads, pavings and pathways	Flagstone roads with curbing	2716	Concrete roads with curbing	1669	1047	38.55
Sewerage (within slum)	No topography management; extensive use of manholes	2760	Topo mngt shallow sewers, GTs/ICs instead of MHs	1597	1163	42.14
Water supply	Cast iron pipes	1687	Combination of CI/GI/AC pressure pipes	1945	-258	-15.29
Storm water drain	Underground storm drains	365	Roads act as drains	0	365	100
Total		7528		5211	2317	30.78

Note: The figures for costs under slum networking are from the actual costs incurred in the Sanjay Nagar project. The costs under Conventional Method are estimated, assuming that this method were to be used for the same project.

Source: Himanshu H Parikh, Consulting Engineers, Ahmedabad.

Table 5. Total Expenses of Slum Networking Project, July 1, 1995-June 30, 1997

Expense Category	Amount (Rs)	Per Cent of Total
Administrative cost	881,344.50	35.07
All other project related cost	1,631,717.41	64.93
Total	2,513,061.91	100.00
Administrative cost per household when project covered 181 households	4,869	
Administrative cost per household if project covered 3,300 households	267.07	

Notes: The administrative cost included assistant manager's salary, project consultant's fees, travelling expenses, books and miscellaneous expenses. The expenses incurred for administering the project do not include expenses for office space, expenses for computer and stationary. These Administrative costs would have increased only marginally if the Trust had covered 3,300 households. Other projects-related costs include: (1) cost of on-site infrastructure installed at Sanjay Nagar; (2) cost of carrying out physical surveys of Sanjay Nagar (181 households) and Pravinnagar-Guptanagar area (3,000 households); (3) cost of constructing 10 sample toilets at Sanjay Nagar; (4) newspaper advertisements for survey and construction tenders; (5) supervision fees; and (6) documentation charges.

Club has come forward to participate in the AMC's slum networking project.

Reasons for Failures

This experiment shows the pitfalls in managing any alliance, and particularly the alliance between quasi-government organisations, NGOs and the private corporations. It also sheds some light on the reasons for the city government's failures in providing relief to distressed areas. The latter experience strengthens the case for an alliance between the quasi-government organisations, NGOs and the private corporations.

Since delay in completion is the most striking failure of this project, we outline the major reasons for the delay. For successful completion, the Trust required active co-operation of other departments in the AMC. The purpose of setting up the SNP cell was to ensure smooth co-ordination with the other departments. However, at every step, the SHARDA Trust had to deal directly with each department, which behaved as a separate empire. None of these departments had any knowledge regarding the importance and details of this project. Most of the functionaries had a very negative, uncooperative attitude towards the project. For example, when we requested the town development office to mark the proposed town planning scheme roads on the Trust's survey map, the departmental functionary replied "Why should the AMC do this?" There were many such instances.

Delay and friction was also caused by lack of clearly defined role of the AMC functionaries. At the Sanjay Nagar construction site, the AMC engineer began to play a proactive supervisory role, despite the fact that SHARDA Trust had employed the contractor and was supervising him. There was tremendous confusion on site. Finally, the deputy commissioner advised his engineer to 'step back' in a letter addressed to him: "You have been placed in charge of Sanjay Nagar site which is the first slum taken up under the pilot project by SHARDA Trust constituted by the Arvind mills. The principal idea of placing you there was to see how the project is being handled by the professional agency... As the project is being handled by the Trust we are not required to directly deal with the contractors or the people at the site. We have to get involved in the process as mentioned earlier and interact with the management of the Trust for any improvement/corrections which are required to be made."[5]

Such problems with the AMC have caused enormous delays in carrying out the project. For granting approvals, giving information or carrying out a project task, the AMC takes an unusually long time. In spite of our vigorous follow-up, the AMC's average response time to such requests is around two months, as shown in Table 6. The delays caused by AMC result in financial losses to SHARDA Trust. Such losses are not reimbursed.

Although SHARDA Trust was prepared for bureaucratic delays, the experiences outlined above came as a big surprise to the Trust officials. The Trust was not only a co-financier of the project, but an important partner carrying out a prestigious project with the AMC. The AMC officials too were unhappy. In an interview during the project documentation,[6] the deputy city engineer in charge of the AMC's SNP cell averred that on several occasions they felt that they were not being treated as partners. Their well meaning interventions about the engineering aspects of the physical works were regarded as improper interference. They consequently felt sidelined and ignored. The administrative machinery of the AMC functions in a particular manner, he conceded, which may not conform to the corporate world standards; one might be compared with the metre gauge while the other with the broad gauge. But this did not justify the AMC being treated as if it had no *locus standi* in the project.

III
Public-Private Partnerships

Our experiences with the AMC represent the problems in forming partnerships with the government and quasi-government sector. There are two reasons for the difficulties in making such alliances work. The first reason is the same as the reason why any alliance is difficult to carry out. However, the second reason is more specific to the nature of the government and the quasi-government organisations. It has to do with the shared values in these organisations. We present the pre-conditions necessary for workable alliances between government, corporate and non-governmental organisations for urban poverty alleviation.

Definition of Alliance Roles

The very purpose of an alliance is to ensure a greater chance of success through co-operative activity than from going it alone. The key is to build on the unique strengths of each partner organisation, by assigning roles based on these unique organisational strengths. These roles must be explicitly defined in a common project document, a "Bible" for project implementation.

In our judgment, the unique strength of the government is its mandate from civil society and a large infrastructure already in place. In such projects, the government should play the role of a 'facilitator'. This means, besides co-financing the project, giving all necessary approvals, information and other support to the lead agency. The unique strength of NGOs is their ability to communicate effectively with the poor. Their role should be basically to work with the community to facilitate the physical upgrading work, as well as manage the community-based health and education components. The unique strength of the corporate sector is its managerial capability and its com-

petence in mapping out competitive business strategies. Therefore, the corporate sector should play the role of project manager and co-financier. It should also focus on the skill upgrading and income generation component of the project.

An alliance is meaningless unless each functionary understands his/her respective role in the alliance. Frequently the top brass conceives and negotiates alliances and delegates their day-to-day management to lower level supervisors, 'the troops in the trenches'. It is these troops in the trenches that are usually responsible for the failure of alliances. The onus of educating lower-level functionaries about their alliance roles rests on the shoulders of the top management of each partner organisation. Second, 'getting the job done' in an alliance involves close attention to a myriad of details. That the success of an alliance relies on attention to these details is a truth many managers literally learn on the job. In the slum networking project, we observed that process and politics received far more executive attention from the local government and the NGO than the 'real work'[7] of installing the infrastructure or other tangible steps towards improving the quality of life of the slum community.

Shared Values

The problems we have described are not 'teething problems' of working the alliance. These problems are endemic and inherent between government and quasi-government organisations. Lack of shared values in the organisation is the root cause of the problems. Gandhiji had perceived the councillors as the servants of the people[8] and said that citizens have the right to ask them to resign if they fail to discharge their responsibilities properly. The contemporary councillors[9] do not share these values. Consequently, the employees of the organisation also do not share these values. Among the employees of the Municipal Corporation, two sets of values are dominant: colonial values and the values regarding job security and enhancement in one's career. These values coupled with the Corporation's structure, and combined with the skills of the people cause the many problems discussed above.

The 'new rigour and order' introduced in the AMC by the municipal commissioner, Keshav Varma was, according to us, limited to only the 'creamy layer' of the AMC, and that, too, only in certain departments. The AMC's organisation structure, as experienced by SHARDA Trust over 30 months of the project duration, remained extremely functional and hierarchical. The hierarchical character of the corporation destroys all the employees' initiative. This, coupled with the value of concern only for one's career enhancement and job security, create systems in the organisation that are not conducive for ensuring quick response. The employees will use systems that will ensure that they cannot be blamed for any wrong decisions. In short the municipal corporation not working as a responsible partner in the alliance is inherent in the character of that organisation.

We are not pessimistic about the possibility of the councillors' values changing. However, this will only be possible when ordinary citizens stop being apathetic and demand accountability from their elected representatives. Only the citizens' 'pull factor' can change the values of today's government functionaries. The slum networking project at Sanjay Nagar is a small step towards mobilising this 'pull-factor' among low income communities in Ahmedabad.

Experience with NGO SAATH

Low level of achievement in community development was an issue on which there was considerable disagreement between SHARDA Trust and SAATH. The Trust was concerned that SAATH was not able to meet its own targets. SAATH's philosophy, akin to that of most NGOs, is that initiating and consolidating the process of change is more important than somehow meeting the targets. And, according to the NGO, its activities were already showing some impact on the pattern of living in Sanjay Nagar. Also, the two organisations disagreed on the skill upgrading component. SHARDA Trust believed that work on it should get underway soon. Skill upgrading was not a priority item for SAATH. During a visit to Sanjay Nagar by the MD of Arvind Mills and the deputy municipal commissioner, SAATH was asked to jointly prepare a plan for the community to avail of existing income generation schemes. SAATH felt that it was being 'pushed' and did not prepare any plan. The NGO was from the very beginning, wary of the alliance with the corporate partner, fearing the 'big brother' syndrome. In its 7th Annual Report, SAATH expressed its dissatisfaction, saying that "both the organisations have a different perspective and stand regarding development issues affecting the slum residents in the Slum Networking Project".

IV
Corporate Participation

Philanthropy to Enlightened Self-Interest

In spite of these experiences, we believe that the corporate sector should participate in urban poverty alleviation. It posseses certain strengths *vis-a-vis* the government and NGO sector. But if corporates are to participate meaningfully, the rationale for their participation must change from the philanthropy mode to that of an enlightened self-interest.

The role of industry, prima facie, is to create wealth through the production of goods and services. This production is to be carried out within a legal framework. The industry is expected to obey labour laws, pay taxes to the government and to respect the environment. Industries working within this framework are, according to us, fulfilling their 'social responsibility'. Anything beyond this is an additional burden. Investment in social development is a charge on profit before tax. In other words, social development is not the business or responsibility of the corporate sector. Nevertheless, certain corporates have, since their inception, made special efforts to go beyond their normal idea of business. Traditionally, the driving force behind such efforts has been philanthropy.

However, the philanthropy approach will not work effectively any more. Corporates can donate funds and be done with it. It is easy to give out doles. But this is not very meaningful. Most business houses do not formulate strategies for philanthropic activities. Sustained activities in this area is not a priority for the top management. Companies do not generally employ highly skilled persons for activities which run on a not-for-profit basis. A lax approach towards social development results in sporadic, ad hoc projects having little impact or long-term significance.

To make a mark in this field, corporates will necessarily require three basic attributes. First, a vision. A vision of a desirable society and the role of the company in that society. Second, the desire to be more than a donor or financier of development. Third and most importantly, the rationale for participation should be an enlightened self-interest. Unless the company has this kind of a stake in social development, it will not make a whole-hearted effort to bring about that development.

Corporate Strengths

Corporates can add considerable value to projects such as the Sanjay Nagar project through their direct participation. They

can bring in the requisite skills to manage the project and bring it to fruition within the stipulated time and budget. Their systems and structures are flexible enough to effectively respond to contingencies and unplanned events, without compromising the project objectives. Quality is an important corporate watchword. Most importantly, the relationship with the slum community has been like that of a business partner, rather than that of a donor and beneficiary, or a ruler and subject.

The Indian corporate sector possesses a unique strength *vis-a-vis* NGOs, especially the ones dependent on foreign funding. This is the ability to set its own agenda and work in a professional manner. It has the ability to take risks and test out new ideas. Self-funding and local accountability gives Indian corporates tremendous flexibility in day-to-day functioning, solid credibility and sound monitoring. Whether they admit it or not, NGOs are bound to work in sectors for which foreign funding is forthcoming. Very often, the Indian NGOs' development agenda is influenced by funding agencies on the other side of the globe. NGOs claim that they are 'accountable' to the poor in their constituencies, but the reality is quite different.

Corporates' Role in Skill Upgrading

In the long term, the urban poor can empower themselves only through economic empowerment. Economic empowerment can be achieved by upgrading their skills. As the Indian economy globalises itself, low-skilled people will be very badly hit. Therefore, development efforts should focus on helping the poor to upgrade their skills. Also, they will need to move into value added products and services if they are to significantly enhance their incomes. This is the role of the corporates. After all, who would be better equipped to help low-income communities in mapping out competitive strategies for their businesses? Day in and day out, companies identify viable businesses and train people to run them and compete worldwide. The corporates that go beyond being mere donors or financiers of development and involve themselves in economic empowerment will make a mark in the field of development.

V
Conclusion

The government of India and the state governments are concerned about providing housing to the weaker sections and creating employment. The Maharashtra state under the Shiv Sena-BJP government[10] launched its ambitious Slum Redevelopment Scheme (SRD) more than two years ago. Only one building containing 128 tenements has been constructed so far. The tardy progress made by the government raises doubts about its promise of building ten lakh free houses for slum-dwellers in Mumbai over the next five years. Similarly, the Jawahar Rojgar Yojana and employment generating schemes like the Employment Guarantee Schemes have failed to make an impact on the unemployment scenario.

The experiment in Sanjay Nagar throws light on the reasons why such good intentions of the government do not yield results. It also shows that we need a newer approach to solve the unemployment problem. We must upgrade the skills of the unskilled so that the unskilled can create for themselves well paying employment opportunities. To achieve this we strongly believe that the government, the NGOs and the corporate sector must work in partnership, with the government playing the facilitator's role.

Note

[The views expressed in this article are the authors' personal views. We would like to record our sincere thanks to V L Mote for the many suggestions and comments he made on this article. We would also like to thank Dwijendra Tripathi for permitting us to draw upon observations made in his forthcoming book *Alliance for Change: Slum Upgrading Experiment* in Ahmedabad.]

1 Slum networking is an integrated urban development strategy which attempts to tackle the infrastructure and environmental problems of slums in such a manner that the city as a whole benefits. By upgrading city slums, not as isolated islands, but as an urban net, it attempts to strengthen the city level infrastructure through networks. Actually, the networking strategy could not be demonstrated in the pilot project because geographically contiguous slums were not ready to participate in the project. Therefore, the Sanjay Nagar project is not an example of slum networking in the true sense of the term.

2 Letter of municipal commissioner to Municipal secretary, dated September 18, 1995, reference no1, slum upgradation department, Ahmedabad municipal corporation (translated from the original in Gujarati).

3 From the letter written by P U Asnani, deputy municipal commissioner (health and corporate planning), AMC, to V L Mote, trustee, SHARDA Trust, on March 4, 1996.

4 Flagstone paving has other disadvantages, including vulnerability to pilferage, inability to take heavy loads and higher long-term maintenance cost. Despite these facts, the AMC continues to use stone paving in its own sites under the slum networking project.

5 Letter from deputy commissioner to assistant city engineer, op cit.

6 This documentation, carried out by Dwijendra Tripathi, appears in a forthcoming book titled *Alliance for Change*, published by Tata McGraw Hill Publishing, New Delhi.

7 See Zaleznik, Abraham: 'Real Work' in *Harvard Business Review*, November-December 1997.

8 Pathak, Devavrat N and Pravin N Sheth. *Sardar Vallabhbhai Patel: From Civic to National Leadership*, Navajivan Publishing House Ahmedabad 380014, March 1980, p 50, para 4. See also footnote numbered 13 on p 51.

9 'Keshav Varma has no time to discuss issues with me' an interview with the erstwhile mayor of Ahmedabad Bhavna Dave published in the June 20, 1996 in the *Times of India*, Ahmedabad edition.

10 'After two years, SRD is a non-starter' by Dionne Bunisha, *The Sunday Times of India*, December 21, 1997.

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For a Politically Sensitive Gender Discourse

Rajeshwari Deshpande

THERE is no doubt that the demand for and granting of reservations to women in political offices have proved to be mere tokenism. All the same, the discussion around the issue, both within and outside the women's movement, has turned out to be very significant. These debates touched upon the crucial question of the interrelationship between the institutions of caste and patriarchy. The autonomous women's organisations as well as the women's fronts of the left parties had vehemently opposed quotas within quotas. However, there are a number of scholars who have recognised the need to seriously deal with the caste question if gender politics is to be advanced in Indian context.

There are two such formulations recently published in the *EPW* [Rege 1998 and Sonalkar 1999]. Both argue for setting up a new agenda for the women's movement as far as the essential and complex pattern of interrelationship between caste and patriarchy is concerned. Wandana Sonalkar emphasises that the category of women does not have sufficient unity to represent itself as a political group. On the other hand caste groups have more claims to being marginalised social groups with a social cohesiveness and common modes of being oppressed. This entitles them to seek political recognition as a group. Sonalkar argues that the struggles on behalf of women in India do not engage themselves with the forces of patriarchy on a social scale because they do not deal with the caste question. Familiar feminist initiatives get neutralised in the fractured social context in India.

Taking the argument further Rege articulates a dalit feminist standpoint. This standpoint has to be acknowledged and approved by the Indian women's movement in order to simultaneously deal with the forces of capitalism, patriarchy and brahminism. In other words, the women's movement needs to develop a political strategy to simultaneously address the issues of caste, class and gender to be relevant within the contemporary political set up.

Both Rege and Sonalkar are keen to point out that such a political agenda does not celebrate a variety of identity politics on behalf of women belonging to various castes. Rather, as Rege has rightly pointed out, a shift of focus from 'naming differences' to social relations that convert difference into oppression is imperative for feminist politics. Since caste operates at the institutional structural level, it perpetuates social inequalities to such an extent that the lower castes never have access to politics. The women's movement has to challenge these inequalities operating at the systemic level while dealing with the caste question.

These must be seen as very significant contributions to the theorisation about the women's movement as well as about Indian politics. It is for the first time that the Indian women's movement has engaged itself in a serious debate about the caste question. The issues raised by these discussions are relevant not only for gender politics but also for all those social movements which either negate caste as belonging to the superstructure or those who celebrate the category of people rather than differentiating them on the basis of caste and class.

Left politics in India has always neglected the significance of caste because of its orthodox understanding of the nature of Indian society. It has been discussed amply within and outside left circles. But the new social movements emerging as people's movements also tend to overlook caste realities. These struggles have engaged themselves in a political exercise of authenticating local communities. This exercise tends to overlook the caste inequalities operating at both the local and the larger societal level. The women's movement has shared the same perspective till today in its political practice. It has engaged itself in the political exercise of authenticating women without taking into consideration the essential caste class divisions among them.

That is the main reason why gender politics in India has remained a variety of identity politics. In fact its agenda has always strengthened this image. The movement has largely been engaged in attempts to politically legitimise a group that did not actually exist. That is why it articulated only those demands and raised only those issues which fitted in the pattern of identity politics at one or the other level. These were mainly related to misuse or insult of the female body and sexual relationships among human beings, thus generalising from the common experience of all women. However, the movement failed to situate these experiences within the broad context of political economy. At a more subtle level it failed to see and challenge the structural locations in terms of caste and class giving rise to these issues. While celebrating the personal as political, generally the personal experiences of urban middle class women were highlighted. Personal became political in order to publicly deal with patriarchy. Expressions of patriarchy were related to private experiences of patriarchy. As a result the women's movement exposed issues related to rape, dowry, sexual harassment and abuse of the female body, neglect of women's health etc. Gender politics was conceptualised in terms of granting justice to all the Indian women's *vis-a-vis* gender inequalities experienced by them.

The same considerations prompted the demand for reservations for women in politics. It was indeed a very naive political position adopted by the movement. In denying quotas to the lower caste women, these organisations completely failed to understand the complexities of the mainstream political context. As stated earlier, reservations ultimately proved to be mere tokenism. The political package extended by the state could have been utilised by the women's groups to expose the caste-based exploitation of women and perhaps also the shrewd strategies adopted by the 'casteist' male politicians in demanding quotas within quotas. However, this could have been possible not by opposing caste based quotas but by joining hands with the forces demanding them.

CORRIGENDUM

Indian Institute of Management, Ahmedabad
Revised dates for Summer School

With reference to the advertisement appearing on the inside front cover in the issue of February 27-March 5, 1999 the revised dates for Summer School are

Programme dates June 11-29, 1999 (instead of June 4-13, 1999)
Last date for receipt of applications April 25, 1999 (instead of April 15, 1999)

The demand provided a good opportunity to the movement to intervene in mainstream politics. But the movement failed to appropriate it. It is very interesting to note that the feminist scholars in India always criticise state legislation in the social sphere as neglecting the existence of pluralities and accuse the state of homogenising women. In opposing caste-based quotas the movement celebrated the same homogenised category of Indian women. Secondly, the demand for reservations also had a serious implication regarding the principle of representation as it changed the basis of representation from individual to group. If reservations are to be granted to women why not to OBC women or even men or to the disabled or homosexuals? All these groups can have their own claims of political representation. These claims cannot be entertained within the present political framework because it would lead to serious debates about representation and the concept of citizenship. The women's movement however neglected these subtlties and hastily sought reservations for women. It was a result of the crude development of the category of women by the movement.

It is indeed very difficult to organise struggles against patriarchy because it operates at the private-personal level and that too in a very subtle way. The problem becomes more complicated in a caste society. Therefore any struggle against patriarchy on a social scale has to initially combat caste inequalities. If gender issues are to be seriously brought to the forefront of mainstream politics, the movement has to discuss gender inequalities as operating through caste inequalities.

Till date the movement did not see gender issues through a caste-class perspective. Therefore the movement by and large remained apolitical in character. A false political consensus seems to be emerging around women's issues. It is expressed at various levels. The worst expression is the way in which the state seems to be co-opting the feminist agenda – granting reservations, chalking out health programmes for women, the judiciary protecting women from sexual harassment at workplaces, etc. In addition to these there is a general tendency within the agencies of mainstream politics (and also among social movements) to separate women and to discuss gender issues as related to the female body. This leads to NGOs identifying women as ideal target groups and departments of women's studies encouraged by the government. Like the issue of corruption, gender issues evoke a consensus around them and initiate middle class activism. That is why 77 per cent of voters approved women's reservation policy in a recently held voters' survey (*India Today*, May 31, 1996). Rightist forces can easily take over the feminist agenda because the movement is apolitical in character. In fact, the movement itself fell prey to the apolitical consensus around gender issues when a women's political party was formed in the wake of granting reservations to women. The apolitical character of the women's movement in India can be attributed to its neglect of the caste question leading to homogenisation of women.

The emerging consensus around gender issues must be seen as dangerous. In a competitive, unequal society no politics can be based on consensus. Politics must be understood in terms of confrontations and contestations. These confrontations take place at two levels, with the state and also with the dominant sections. However, politics in a competitive, unequal society also remains essentially strategic. It demands continuous alignment and realignment of social forces, appropriating and targeting the potential of the state and, most importantly, combating the focal points of exploitation. In other words the movement has to prioritise the political issues that it wishes to deal with in order to practise its political agenda successfully.

This means that the women's movement has to develop a more sophisticated understanding of the political context in which it operates. If caste groups prove to be more authentic in terms of their claims to political representation, the women's movement must respect these claims and join hands with them. If caste and class prove to be more obvious points of exploitation, the movement must give priority to issues of those women who belong to the oppressed castes and classes.

This would also mean joining hands with those political forces which are fighting for the oppressed caste-class groups even if they do not seem to be celebrating the conventional feminist agenda. In other words, gender issues can be effectively discussed and resolved within mainstream politics only by those political groups which simultaneously address the caste, class and gender issues and which are continuously engaged in confrontationist exercises. The feminist political agenda can be furthered only by a political party sensitive to the complex caste, class, gender relations and is willing to combat them politically. No doubt the autonomous women's movement has played a very significant role in Indian politics by exposing gender inequalities. It is still a major responsibility of the movement to continuously apply pressures from within as far as gender inequalities are concerned.

However, in itself the autonomous women's movement is unable to combat gender issues politically because it claims to represent a social group that is non-existent. The concept of sisterhood cannot serve as a basis for women's politics because it is fractured by caste inequalities. The women's movement needs to recognise that sisterhood is a utopia which has to be politically constructed by dealing with the forces of caste-class and patriarchy at the social level and not by isolating the gender issues.

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Black Economy and Macro Policy-Making in India

The major macro economic problems of the seventies and the eighties were integrally linked to the growing phenomenon of black income generation. The black economy should, therefore, have been a significant factor in analyses of the economy. Its non-inclusion in analysis resulted in a partial understanding of the Indian economy and often incorrect policy prescriptions. A discussion of the institutional practices of the black economy and an attempt to incorporate it into short-run macro analysis of the Indian economy. 681

Indian Bourgeoisie and Political Hindutva

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The suggestions made by the Telecom Regulatory Authority to reduce the price of international and long distance calls and raise telephone rentals and local call charges are eminently justified on efficiency grounds. Nor are the equity implications of the changes necessarily adverse. 672

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A reading of the railway budget 1999-2000 shows that the ministry has failed to evolve a coherent and effective strategy for capacity enhancement and technological upgradation. 666

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The Akali tradition has been that whenever it is out of power all factions join hands and speak a belligerent language and when it is in office there is a power struggle in the party. The present feud between Parkash Singh Badal and Gurcharan Singh Tohra can be seen both as a continuation of this Akali tradition and something different in the present context of Punjab and Indian politics. 664

Perestroika?

EW/EPW does indeed deserve congratulations on its fiftieth anniversary, but for a reason different from those most of your letter-writers advance. I must admit I was not one of the magazine's fans in the late sixties and seventies, when I was an economics student. Whether its editorial viewpoints reflected the influence of Mahalanobis or Mao, they consistently displayed a blind prejudice towards market forces. When I migrated to the United States in the early eighties, I am afraid I lost touch with it.

Hence I was pleasantly surprised, on a visit to India, to pick up an issue of *EPW* at a friend's house. The lead editorial (February 13, 1999) pointed out the irrelevance of the Planning Commission's 'planning', and stated bluntly that 'major changes are imperative in labour laws and regulations to impart a measure of flexibility to the labour market and make possible the organisational restructuring so very necessary..."

My curiosity piqued, I checked the editorials in my friend's back issues over the past couple of years. I found a plea to embrace globalisation ("Rather than rail against these reforms, the task that lies ahead is to learn to adapt in international settings...Success will lie in the ability to engage – not in denial", August 16-23, 1997); a forthright call for the deregulation of oil prices and even the elimination of subsidy on kerosene (September 6, 1997); no less than three consecutive editorials calling for the government to immediately disinvest its sharholding in Maruti in favour of Suzuki (September 20 and 27 and October 4, 1997); strong support to the trade-liberalising exim policy (April 18, 1998); a call to reduce power subsidies to farmers (May 23, 1998); condemnation of protectionist measures, and a warning against excessive government borrowing (June 6, 1998); a defence of the liberalisation of gold imports (June 20, 1998); an admission of the government's inability to bear the growing burden of food subsidy (July 11, 1998); support for public sector disinvestment (September 5-12, 1998); a criticism of farmers' organisations' attack on Monsanto (December 5-11, 1998); a vigorous defence of the opening up of the insurance sector (December 12-18, 1998); and so on.

These are only a few instances; what should be noted is that even the remaining editorials hardly ever strike the old anti-market, anti-wealth-creation, themes. A consistent theme is the need to replace the 'outdated discourse' of public sector investment (May 30, 1998) with proper regulation of the private sector. No doubt there are a few notes pleading for the retention of directed lending, but that's about it. (However, one should note that there are very few editorials on economic topics in recent issues: the large majority are on political developments and strangely, on health and sports.)

Refreshingly, the *EPW* of today also does not suffer from a knee-jerk tendency to label the BJP. Its lead editorial of January 9, 1999 is quite fair to the BJP, and, unlike most of the press articles I saw in India, admits that Christian missionaries' activities in India are controversial. It even says legislation to regulate conversion "deserves consideration". Another editorial (February 6, 1999) courageously endorses the government's decision to move towards signing CTBT as "politically among the most unassailable decisions in international relations made by this country".

Whatever led to this *perestroika* in the *EPW*, it deserves support and encouragement from all open-minded persons. Here's to the next 50 years!

DINESH GANDHI

Bakersfield, California.

Fertility Decline in AP

THE paper on 'Fertility Decline in Andhra Pradesh' by K S James (February 20) sheds light on a major positive development that is taking place in the country. It gives hope that the population time bomb will ultimately be brought under control even though only after it has done a great deal of damage. However, one wonders why the author is reluctant to accept the role of mass media in fertility reduction in Andhra Pradesh even though he cites statistical evidence in its favour. In fact the mass media must be playing the same role in Andhra Pradesh as was played by literacy in Kerala. What should be recognised in this connection is that both literacy and mass media lead to better public awareness. It is possible that rural folk may score high on public awareness even though they do not know to read and write if they have sufficient media exposure through TV. On the other hand subsidised supply of foodgrains, while it provides economic benefit to the poor, is a factor which will encourage the poor to have more children since it considerably reduces the cost of bringing up children. Hence, it may not be correct to say that reduction in fertility can be brought about by the operation of PDS as is done in the paper.

P V RAJEEV

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Stinking Criminal Justice System

THE recent statement made by Justice M N Venkatachaliah, chairman of the National Human Rights Commission (NHRC), that 60 per cent of all arrests made in India are "unnecessary and unjustifiable" underscores the need for the revamping of the police force and drastic reforms in the criminal justice system – suggestions made by the National Police Commission (NPC) way back in 1980.

According to Justice Venkatachaliah, in Delhi's Tihar jail, the largest in the country, only 10 to 15 per cent of the inmates were convicts, the rest have been languishing there as undertrials for years together. Most of these undertrials were arrested on petty charges. What is found in Tihar jail fairly represents the state of affairs in other parts of the country. The NPC, after a sample study, found out that a major portion of the arrests were connected with very minor prosecutions, and could not therefore be regarded as quite necessary from the point of view of crime prevention. Continued detention in jail of such persons meant avoidable expenditure on their maintenance. The NPC estimated that 43.2 per cent of the expenditure of the jails was over such prisoners who in the ultimate analysis need not have been arrested at all. Curiously enough, even after two decades things have not changed, as evident from Justice Venkatachaliah's observation that "unnecessary and unjustifiable arrests" accounted for 43 per cent of the total expenditure incurred by prisons.

One of the main reasons for such arrests is the arbitrary power enjoyed by the police force. The power to arrest any citizen without warrant even on flimsy grounds is granted to the police by Section 41 of the Cr PC. Apart from the Indian Penal Code, arrests are also made under local and special laws, like the Excise Act, Prohibition Act, Arms Act, Gambling Act, Suppression of Immoral Traffic Act, Motor Vehicles Act, etc. Under these acts, cases are registered, not on complaints from aggrieved parties (as under the Indian Penal Code), but on information and intelligence available to the police in their field work. This gives scope to the police to settle old scores by making arbitrary arrests of persons who may have provoked their ire, or from whom they can extort money. As the NPC pointed out, "It is generally known that false criminal cases are sometimes engineered merely for the sake of making arrests to humiliate and embarrass some specified enemies of the complainant, in league with the police for corrupt reasons". In fact, the NPC identified this particular arbitrary power of the police (to arrest without warrant) as the most important cause for corruption and malpractices, accompanied by extortion and harassment to the public. It is no wonder therefore that such false charges quite often lead to acquittals after years of unnecessary detention as undertrials in jails.

Justice Venkatachaliah has also referred to the high rate of acquittals (almost 80 per cent in cases involving heinous offences) and low rate of convictions. This is due to the failure of the police to make their arrests justifiable, as well as the ineptitude and corruption in the lower courts. The NHRC chairman has rightly pointed out: "...indiscipline is common in most of the lower courts nowadays, efficiency of witnesses' cross-examination has more or less disappeared and trials have become a farce". It is quite obvious that the concept of the independence of the judiciary from the executive is totally unknown in the lower courts, and is steadily getting eroded in the higher levels of the system. In the districts, one often finds judicial magistrates coming in police jeeps to attend courts. They can be even seen taking their cue from the police in delivering judgments.

As a remedy, the NHRC chairman has suggested reforms on the lines of the Police and Criminal Evidence Act of 1984 of the United Kingdom. Based on the recommendations made by a committee headed by Sir Cyril Philips, this Act streamlined police powers of arrest, detention and interrogation, by stressing the requirement for fairness, openness and workability. While this may be considered a laudable suggestion, one wonders how it can be carried out in Indian conditions where the police force consists of a vast mass of hardened musclemen (described once as the largest "single lawless group in the country" by Justice A N Mulla) who are totally ignorant of and indifferent to the laws of the land. As Justice Venkatachaliah has himself acknowledged, the majority of the complaints reaching NHRC relate to the police. Apart from arbitrary arrests, police torture and custodial deaths are the biggest blots on the Indian police system. These are compounded by the apathy – and often connivance – of the criminal courts. The judiciary at the lower levels is filled with equally ignorant and unscrupulous people (as acknowledged by Justice Venkatachaliah) who are supposed to dispense justice.

Clearly, India has to go a long way to reform its criminal justice system. It has not only to suitably alter the relevant provisions of the penal code, but also to radically change the mindset of its police personnel. It requires recruitment of better people and their training in the handling of cases in a fair and humanitarian way. The latest decision of the NHRC to establish human rights cells in state police headquarters could be a move in the right direction, provided these cells do not become yet another non-functional showpiece. There has to be a corresponding effort to carefully select and properly educate district and sessions judges in order to make the judiciary at the lower levels function independently and effectively, instead of being a handmaiden of a corrupt police force as it often tends to be.

GOLD DEPOSIT SCHEME

A Drop in the Ocean

A correspondent writes:

HOW is it that everybody is worried, quite rightly, about the scale of gold imports into the country, particularly since 1991, and still not asking the right question, about the advisability of allowing virtually unrestricted import of gold on private account? The union finance minister has proposed in his latest budget a scheme to mop up gold held in private coffers and hopes that through the scheme it would be possible for him to gather a sufficient quantity of gold to reduce "the need to import thousands of crores [worth] of gold every year". He expects lower gold imports as part of the domestic demand can be met through mobilising gold under his scheme.

Conservatively estimated, private gold holdings in the country may add up to not less than 15,000 tonnes (some estimates put the figure at close to 20,000 tonnes) which at prevailing international prices would be equivalent to $140 billion. This works out to be more than four times our present foreign exchange reserves. If the World Gold Council's estimates of gold imported by India in 1998 turn out to be correct, we would have imported gold worth $7.5 billion in a single year. This indicates how much of our foreign exchange earnings from exports of services as well as goods get diverted to a totally unproductive purpose. The question we really ought to be considering is whether to continue incurring such a high cost or revert to the ban on gold imports the way it used to apply before 1991, when the only quantity of gold legally possible to import on private account was on the basis of licences issued to exporters of gold jewellery. True, the one major consequence of such a ban was that the domestic price of gold tended to be vastly higher than the international price which encouraged smuggling of gold on a large scale. Naturally, this also meant that part of the exchange earnings of the country from exports of goods and services got diverted to financing such smuggling. Still the diversion could not have been anywhere near what is currently taking place to finance legal import of gold.

The scheme proposed by the finance minister is to authorise selected commercial banks to receive gold as deposits which will be redeemable in gold and which will carry a moderate tax-free interest on maturity. These deposits will also be exempt from capital gains and wealth taxes. The operational details of the scheme – the minimum maturity period, the rates of interest, varying perhaps with the period of the deposit, etc – have not been announce yet. What the finance minister has made clear, however, is that these deposits "will not enjoy [tax] amnesty".

Speculation is rife about how successful the gold deposit scheme will be in mopping up gold. The maximum officials are anonymously reported as hoping to mobilise under the scheme in 1999-2000 is Rs 5,000 crore, the gold equivalent of which at the current domestic price would be around 12 tonnes. Interestingly, the estimate of gold deposits likely to be mobilised is only marginally higher than the VDIS declarations in the form of gold and jewellery. Therefore even if the amount expected to be mopped up in gold deposits does reach the figure of Rs 5,000 crore, it may turn out to be a one-time collection, which may not recur year after year.

More important is that with a target of Rs 5,000 crore the scheme is unlikely to make any major dent on the import of gold. To be able to mobilise 10-12 tonnes in gold deposits is neither here nor there when the quantity imported is 800 tonnes a year. Isn't the finance minister claiming too much when he describes his scheme as "an extremely innovative idea"?

HEALTH

Shooting in the Dark

IN the last decade health has emerged as a major area of academic interest in the social sciences. Surveys and analyses of national data have thrown up an understanding of health care, health behaviour and health status of the people, which had not been available earlier. Many of these large research studies have been either sponsored or funded by governments which, more often than not, have been prompted to initiate them by international agencies. In sum, information on the quality of health care available, people's access to health care, their behavioural patterns and health status is no longer a matter of conjecture. There is sufficiently reliable information on the spread of diseases, their resurgence in certain areas, levels of patient care, availability of drugs in the system and so on. In the circumstances, why is it that the ministry of health does not access such information in planning its budget and charting the development of health care at either the central or state levels?

The annual exercise of putting up demands and being allocated budgetary support must indeed be a fairly simple-minded affair at the ministry of health. Over the last few years there have been any number of episodes of illnesses which direct attention to the need to strengthen the disease control programmes and the public health system. Yet allocations for public health continue to rise at an abysmal rate. Admittedly, health is a state subject and the central budget only defines the contours of a small part of the health plan for the year. Nevertheless, in the context of the changing epidemiological profile of the country, it is the most important part of a health plan. Central provisions for disease control programmes in most cases are to be supplemented by allocations from the state governments and therefore the actual amounts projected to be spent are not obtainable from the central budget. However, the central allocations play an important role in defining priorities and it is to be expected that these are planned on the basis on the latest data on the epidemiology of the disease. No such exercise seems to take place in the health ministry before demands are sent up to the finance ministry. Projections for the coming year appear to be worked out simply on the basis of what had been spent the previous year and the availability of grants from international agencies for particular programmes. For instance, while the resurgence of malaria has been much talked about, the budget provides just a 10.5 per cent rise in the allocation for the control programme. True, malaria takes away more than 30 per cent of the public health budget. This alone should prompt some thinking on a financial and performance review of the programme.

There is also evidence that centrally-managed disease control programmes are not the best way of controlling diseases. For instance, there are states or areas in states where malaria is not the major health problem. Under the present structure there is very little the states can do to change either the structure of the programme or its funding pattern. This should be prompting serious questions on the viability an efficiency of vertical, centrally-adminis tered programmes for particular disease Perhaps the case for making overall allo cations for health to the states and allow ing them to determine the pattern o spending according to their priorities need to be considered.

The case of the tuberculosis contrc programme is somewhat different and quit

pathetic. This programme has been much neglected in the past and has been revived only after the national AIDS control programme took off. This year even with a 44.8 per cent increase in the allocation, the programme still accounts for only some 14 per cent of the public health budget. Also, there is little reason to believe that the rise in the allocation has been prompted by the government's concern over the rising curve of the disease. Allocations for TB have shown no particular logic in the past.

The illogic of allocations in the health budget has been a long-standing feature. What is worrying this year is the finance minister's announcement that the central and state governments will provide matching funds for gram panchayats which will with their own contributions set up primary health care facilities. Given the disparities in levels of development across the country, is it not likely that gram panchayats in the better developed areas will be the ones who will come forward to set up primary health facilities, especially if, as the trend seems to be, fees for services/medicines are allowed to be charged? And as the government's own data show, it is the least developed regions which lack the minimum services which the state ought to be committed to providing to the people. Today more than at any time in the past it is possible to formulate and implement realistic health plans and programmes which may even provide health care for all by 2005, even if not health for all by 2000. But the government has to be capable of taking up the challenge.

SMALL SAVINGS

A Matter of Interest

IT is intriguing that although small savings collections have been delinked from the union government's budgetary operations by transferring transactions in small savings from the Consolidated Fund of India to the Public Account, interest on small savings continues to figure in the Consolidated Fund of India. Thus, in 1999-2000, out of the centre's estimated interest liability budgeted at Rs 88,000 crore, interest on small savings is put at Rs 18,235 crore, or over one-fifth of the total. There must be some strange logic why the finance ministry decided that while collections from small savings could be delinked from the centre's budgetary operations, this could not be done with respect to the interest due thereon. Possibly the ministry did not want the fiscal deficit figure to be brought down so very sharply in one go as would have happened if the interest liability were treated on par with small savings collections.

When some state governments had suggested to the union finance ministry in the Inter-State Council that the accounting procedure with respect to small savings collections be changed, surely they did not envisage that the centre would retain in its budget transactions in interest liabilities relating to small savings. One possible explanation why the centre has decided to continue the old practice with respect to interest on small savings could be that by doing so the centre can continue to make a profit by charging the states a much higher rate of interest on loans extended to them as the states' share of net small savings collections. The rate of interest charged to the states against such loans, which has just been lowered from 14 per cent to 13.5 per cent, is still much higher than the average interest cost the centre has to bear on outstanding small savings which works out close to 10 per cent. The state governments, as is well known, have been pleading with successive Finance Commissions against the exorbitant interest rate charged to them on their share of small saving collections.

Whether or not the states succeed in getting the centre to align the rate of interest charged on loans against small savings to the interest cost actually incurred by the centre, there is no reason why the interest due on that part of the collections which is transferable to the states should continue to figure in the centre's budgetary operations and therefore in the centre's fiscal deficit.

WOMEN

Unviable Scheme

THE General Insurance Corporation's 'rape insurance' scheme was a singularly ill thought-out proposal. Because of the haste and poor judgment of the government insurance company, a potentially useful scheme which would have offered cover to women at risk from a variety of hazards has now been rendered more or less unviable. Taken with the immediate response to it the episode throws up a disturbing glimpse of the distortions that progressive change can prompt.

The Rajeshwari Mahila Kalyan Bima policy, the GIC scheme as it stood when it was announced, was a ridiculous and callous attempt to 'compensate' women in distress. Launched by the prime minister on March 19 the scheme covered women in the age group 10 to 75 and offered insurance against disability caused by rape at an annual premium of Rs 15 for a period of one to five years. The extent of insurance cover depended on the degree of disability: the compensation for permanent disability would be 25,000 and Rs 12,500 for loss of a limb or eye. The scheme also offered insurance against disability caused from surgical operations, from snake-bites, drowning, murder and terrorist activity. Interestingly, the assessment of the degree of disability would depend on a doctor's report, a doctor of the insurer's choice. The scheme drafted by Oriental Insurance, originally meant to cover risks that women faced, included rape reportedly at the instance of the government.

It is hardly surprising that women's groups flayed the scheme – as they rightly pointed out, it seemed to acknowledge the inability of the government to prevent abuse of women and rape while offering compensation after the event. Even more shocking was the fact that the scheme would mean that the insurance company would arbitrate on the degree of 'injury' to the woman in order to assess the 'damage'. But more significantly, the scheme is based on the assumption that deciding on the extent of damage a woman suffers is a mere technicality, quite ignoring the long-standing debate in women's and legal circles on the issue of 'proving' a rape in court. Clearly, no attempt had been made to discuss the issue with women's groups. On a scheme aiming to offer compensation for injury specifically for women, surely, the perceptions and experience of groups working with women should have been drawn upon?

The GIC has now withdrawn the scheme and is said to be reconsidering it. However, the episode draws attention to the yawning gap between the projection of women's issues and their espousal in public and the unchangeability of social and cultural perceptions. It would be easy enough to chastise the government and the public sector insurance industry for using the issue of rape, a painfully traumatic event in a woman's life, for an insensitive political gimmick. The more difficult task is to ensure that in the current context of the state's dwindling welfare support to women, a scheme attempting to offer financial aid in times of crisis, such as injuries and accidents, is not allowed to fall by the wayside, and to actually invest it with wider scope.

CURRENT STATISTICS

***EPW* Research Foundation**

Exports have shown a sizeable fall in dollar terms in the first 10 months of 1998-99. Petroleum imports have also fallen by about 25 per cent, but because of the over 10 per cent rise in non-POL imports, the trade deficit has risen to $7.8 billion against $6.8 billion in the whole of 1997-98. Imports of chemicals and manufactured goods have declined, while capital goods imports have generally remained at last year's levels. It is the 'Others' category consisting of electronic goods, professional instruments and such new items which have contributed to the rise in imports. In exports, primary goods and gems and jewellery have stood their ground, while all other major exports, including textiles, have suffered a setback.

Macroeconomic Indicators

Index Numbers of Wholesale Prices (1981-82 = 100)	Weights	March 6, 1999	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
All Commodities	100.00	354.1	neg	5.2	4.8	5.0	5.1	5.3	6.9	5.0	10.4
Primary Articles	32.30	380.8	–0.6	9.7	4.1	9.5	5.3	5.5	7.0	5.4	12.7
Food Articles	17.39	439.1	–0.8	12.0	2.6	11.7	3.8	4.0	9.6	9.8	11.9
Non-Food Articles	10.08	385.9	–0.4	8.6	7.1	8.3	8.2	8 5	3.5	–1.9	15.5
Fuel, Power, Light and Lubricants	10.66	379.5	0.9	–1.2	11.8	–1.2	11.4	11.4	16.9	3.7	2.4
Manufactured Products	57.04	334.2	0.2	3.9	3.7	3.7	3.7	4.0	4.9	5.0	10.7
Food Products	10.14	343.5	neg	6.1	4.4	5.4	4.9	5.5	14.1	–0.7	8.1
Food Index (computed)	27.53	403.9	–0.6	10.1	3.1	9.6	4.1	4.5	11.1	6.3	10.6
All Commodities (Average Basis) (April 4, 1998 - March 6, 1999)	100.00	352.3	–	6.9	4.9	7.0	4.8	4.8	6.4	7.8	10.9

Cost of Living Indices	Latest Month	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
Industrial Workers (1982=100)	420.0[1]	–2.1	9.4	9.7	10.5	9.4	8.3	10.0	8.9	9.7
Urban Non-Man Emp (1984-85=100)	342.0[1]	–0.9	9.3	7.9	9.6	7.6	7.2	10.2	8.2	9.9
Agri Lab (1986-87=100) (Link factor 5.89)	299.0[1]	–2.0	9 1	4 6	9.9	4.6	3.8	10.5	7.2	11.1

Money and Banking (Rs crore)	Feb 26, 1999	Variation: Over Month	Over Year	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96
Money Supply (M_3)	945506	8025(0.9)	149450(18.8)	120116(14.6)	94207(13.4)	123451(17.6)	97841(16.2)	72581(13.7)
Currency with Public	168019	2973(1.8)	23184(16.0)	22837(15.7)	12748(9.7)	13095(9.9)	13829(11.7)	17577(17.5)
Deposit with Banks	774261@	4958(0.6)	125708(19.4)	97659(14.4)	81985(14.5)	110036(19.4)	84162(17.5)	55042(12.9)
Net Bank Credit to Govt	386820	4132(1.1)	65218(20.3)	56201(17.0)	32982(11.4)	42000(14.6)	30840(12.0)	35360(15.9)
Bank Credit to Comml Sector	465129	2686(0.6)	44523(10.6)	32939(7.6)	44298(11.8)	55883(14.9)	31659(9.2)	51925(17.7)
Net Foreign Exchange Assets	141342	1357(1.0)	22730(19.2)	14772(11.7)	13116(12.4)	21072(20.0)	23356(28 4)	3109(3.9)
Reserve Money (March 5)	252400	316(0.1)	36023(16.6)	26167(11.6)	16392(8.2)	26248(13.1)	5527(2.8)	25176(14.9)
Net RBI Credit to Centre	154534	179(0.1)	20653(15.4)	20917(15.7)	13179(10.9)	12915(10.7)	1934(1.6)	19855(20.1)
RBI Credit to Bks/Comm Sector	25015	1871(8.1)	10901(77.2)	9733(63.7)	862(6.5)	2029(15.3)	–15557(–54.0)	8747(43.6)
Scheduled Commercial Banks (Feb 26)								
Deposits	695207	4938(0.7)	114893(19.8)	89797(14.8)	74715(14.8)	99811(19.7)	71780(16.5)	46960(12.1)
Advances	352047	2218(0.6)	38592(12.3)	27968(8.6)	35054(12.6)	45677(16 4)	24386(9 6)	42455(20.1)
Non-Food Advances	334711	1938(0.6)	34123(11.4)	23117(7.4)	29783(11.0)	40790(15.1)	26580(10.9)	44938(22.5)
Investments (for SLR purposes)	252569	1563(0.6)	37859(17.6)	33864(15.5)	24196(12.7)	28192(14.8)	25731(15.6)	15529(10.4)
Commercial Investments	47448	755(1.6)	14349(43.4)	15536(48.7)	14616(79.1)	13673(70.4)	4412(29.4)	925(6.6)

@ Includes Rs 17,945 crore on account of proceeds from RIBs, excluding which the year-on-year growth of money supply would be 16.5 per cent.

Index Numbers of Industrial Production (1993-94=100)	Weights	December 1998	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Full Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
General Index	100.00	150.0	139.2(3.5)	134.5(6.7)	137.6(6.6)	129.0(5.5)	122.3(12.8)	108.4(8.4)
Mining and Quarrying	10.47	127.0	117.3(–1.1)	118.6(5.5)	122.4(5.9)	115.6(–2.0)	117.9(9.6)	107.6(7.6)
Manufacturing	79.36	154.0	142.6(3.7)	137.5(6.9)	140.5(6.7)	131.8(6.7)	123.5(13.8)	108.5(8.5)
Electricity	10.17	142.4	135.8(6.6)	127.4(6.0)	130.0(6.7)	121.9(3.9)	117.3(8.1)	108.5(8.5)

Capital Market	March 19, 1999	Month Ago	Year Ago	1998-99 So Far: Trough	1998-99 So Far: Peak	1997-98: Trough	1997-98: Peak	End of Fiscal Year: 1997-98	1996-97	1995-96
BSE Sensitive Index (1978-79=100)	3673(–4.0)	3355	3825(3.7)	2783	4281	3210	4548	3893(15.8)	3361(–0.2)	3367(3.3)
BSE-100 (1983-84=100)	1617(–2.3)	1479	1656(3.6)	1242	1890	1401	1980	1697(15.9)	1464(–5.5)	1549(–3.5)
BSE-200 (1989-90=100)	371(1.5)	343	366(2.8)	289	429	314	440	377(14.9)	328(–5.0)	345(–6.3)
S and P CNX-50 (Nov 3, 1995=1000)	1063(–3.6)	976	1103(4.8)	812	1213	941	1140	1117(15.4)	968	na
Skindia GDR Index (Jan 2, 1995=1000)	656(–29.8)	603	935	515	1015	765	1320	940(1.1)	930(–4.4)	973(–0.6)

Foreign Trade	January 1999	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
Exports: Rs crore	12130	114045(10.1)	103597(7.4)	126286(6.3)	118817(11.7)	106353(28.6)	82674(18.5)
US $ mn	2854	27111(–3.7)	28158(3.4)	33980(2.6)	33470(5.3)	31797(20.8)	26330(18.4)
Imports: Rs crore	14263	146774(18.4)	123964(11.0)	151554(9.1)	138920(13.2)	122678(36.3)	89971(23.1)
US $ mn	3356	34892(3.6)	33694(6.9)	40779(5.8)	39132(6.7)	36678(28.0)	28654(22.9)
Non-POL: US $ mn	2874	29991(10.5)	27137(14.7)	32562(11.9)	29096(–0.2)	29152(28.3)	22727(29.5)
Balance of Trade: Rs crore	–2133	–32729	–20367	–25268	–20102	–16325	–7297
US $ mn	–502	–7780	–5536	–6799	–5663	–4881	–2324

Foreign Exchange Reserves (excluding gold)	March 12, 1999	March 13, 1998	March 31, 1998	Variation Over: Month Ago	Year Ago	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95	1993-94
Rs crore	118549	96546	102511	717	22003	16038	16171	22136	21649	–7302	18402	27430
US $ mn	27949	24401	25976	245	3548	1973	2032	3607	5243	–3690	5640	8724

Notes: (i) Superscript numeral denotes month to which figure relates, e g. superscript 1 stands for January; (ii) Figures in brackets are percentage variations over the specified or over the comparable period of the previous year na: not available neg: negligible * unchanged.

Foreign Trade

(Rs crore)

Commodity Composition of Imports and Exports	April-December 1998-99* Rs Cr	April-December 1998-99* US $ mn	April-December 1997-98 Rs Cr	April-December 1997-98 US $ mn	Full Financial Year 1997-98 Rs Cr	Full Financial Year 1997-98 US $ mn	Full Financial Year 1996-97 Rs Cr	Full Financial Year 1996-97 US $ mn	Full Financial Year 1995 96 Rs Cr	Full Financial Year 1995 96 US $ mn	Full Financial Year 1994 95 Rs Cr	Full Financial Year 1994 95 US $mn
Imports												
Food and live animals chiefly for food	2842(2 1)	676	2735(2 5)	749	3645(2 4)	981	2624(1 9)	739	2184(1 8)	653	4034(4 5)	1285
Pulses	280(0 2)	67	863(0 8)	236	834(0 6)	224	890(0 6)	251	686(0 6)	205	593(0 7)	189
Cashewnuts	487(0 4)	116	460(0 4)	126	744(0 5)	200	688(0 5)	194	760(0 6)	227	691(0 8)	220
Crude materials, inedible oils except fuels	5868(4 4)	1396	5784(5 4)	1585	7345(4 8)	1976	7377(5 3)	2078	8220(6 7)	2458	6748(7 5)	2149
Fertiliser crude	625(0 5)	149	488(0 5)	134	690(0 5)	186	476(0 3)	134	524(0 4)	157	479(0 5)	153
Metaliferous ores and metal scrap	1974(1 5)	470	2041(1 9)	559	2296(1 5)	618	2910(2 1)	820	2751(2 2)	822	2349(2 6)	748
Mineral fuels lubricants and related materials	23112(17 5)	5501	26642(24 8)	7299	34886(23 0)	9386	39160(28 2)	11031	28270(23 0)	8452	20837(23 2)	6636
Petroleum, crude and products	20215(15 3)	4811	23399(21 7)	6411	30538(20 1)	8217	35629(25 6)	10036	25174(20 5)	7526	18613(20 7)	5928
Animals and vegetable oils fats and waxes	5786(4 4)	1377	2391(2 2)	655	2742(1 8)	738	2932(2 1)	826	2265(1 8)	677	626(0 7)	199
Chemicals and related products	16201(12 2)	3856	15032(14 0)	4118	19819(13 1)	5333	17411(12 5)	4905	18654(15 2)	5577	10386(14 5)	4168
Organic chemicals	4457(3 4)	1061	4783(4 4)	1310	6667(4 4)	1794	6223(4 5)	1753	5698(4 6)	1704	4350(4 8)	1382
Fertiliser manufactured	2675(2 0)	637	2804(2 6)		3065(2 0)	982	2434(1 8)	686	4621(3 8)	1382	2399(2 7)	764
Manufactured goods classified chiefly by materials	21857(16 5)	5202	19525(18 1)	5349	26628(17 6)	7165	23910(17 2)	6735	19337(15 8)	5781	14163(15 7)	4511
Pearls precious/semi precious stones	11331(8 6)	2697	8891(8 3)	2436	11680(7 7)	3143	10834(7 5)	2925	7045(5 7)	2106	5117(5 7)	1630
Iron and steel	3499(2 6)	833	3690(3 4)	1011	5294(3 5)	1424	4579(3 3)	1290	4481(3 7)	1340	3397(3 8)	1082
Non ferrous metals	2186(1 7)	520	2542(2 4)	696	3377(2 2)	909	3925(2 8)	1106	3024(2 5)	904	2254(2 5)	718
Capital goods	21347(16 1)	5080	18069(16 8)	4950	26533(17 5)	7139	29869(21 5)	8414	28289(23 1)	8458	19989(22 2)	6366
Machinery except electrical and electronic	9178(6 9)	2184	9164(8 5)	2510	13180(8 7)	3456	12937(9 3)	3644	13127(10 7)	3925	8565(9 5)	2728
Transport equipment	1814(1 4)	432	2343(2 2)	642	3368(2 2)	906	5269(3 8)	1484	3697(3 0)	1105	3497(3 9)	1114
Project goods	6568(5 0)	1563	3683(3 4)	1009	5879(3 9)	1582	7520(5 4)	2118	7998(6 5)	2391	5820(6 5)	1854
Others	25188(19 0)	5994	17428(16 2)	4775	29956(19 8)	8060	15637(11 3)	4405	15459(12 6)	4622	10488(11 7)	3340
Total (Incl errors and omissions)	132447(100 0)	31521	107607(100 0)	29480	151554(100 0)	40779	138920(100 0)	39133	122678(100 0)	36678	89971(100.0)	28654
Exports												
Food and live animals chiefly for food	16698(16 4)	3974	14373(15 8)	3938	20191(16 0)	5433	20441(17 2)	5758	18351(17 3)	5487	12036(14 6)	3833
Cashewnuts	1145(1 1)	272	1085(1 2)	297	1384(1 1)	372	1285(1 1)	362	1236(1 2)	370	1245(1 5)	397
Oil meals	1181(1 2)	281	2073(2 3)	568	3404(2 7)	916	3495(2 9)	985	2349(2.2)	702	1798(2 2)	573
Marine products	3367(3 3)	801	3410(3 7)	934	4313(3 4)	1161	4008(3 4)	1129	3181(3 0)	951	3337(4 0)	1063
Beverages tobacco and tobacco manufactures	187(0 2)	44	183(0 2)	50	222(0 2)	60	298(0 3)	84	113(0 1)	34	117(0 1)	37
Crude materials inedible oils except fuels	4284(4 2)	1020	5668(6 2)	1553	7729(6 1)	2080	8109(6 8)	2284	6283(5 9)	1878	4895(5 9)	1559
Iron ore	1093(1 1)	260	1238(1 4)	339	1763(1 4)	474	1706(1 4)	481	1721(1 6)	515	1297(1 6)	413
Mineral fuels lubricants and related materials	363(0 4)	86	1087(1 2)	298	1311(1 0)	353	1710(1 4)	482	1518(1 4)	454	1309(1 6)	417
Petroleum crude and products	363(0 4)	86	1087(1 2)	298	1311(1 0)	353	1710(1 4)	482	1518(1 4)	454	1309(1 6)	417
Animal and vegetable oils waxes and fats	574(0 6)	137	456(0 5)	125	611(0 5)	164	682(0 6)	192	807(0 8)	241	491(0 6)	156
Chemicals and related products	10646(10 5)	2534	10151(11 2)	2781	14061(11 1)	3783	11995(10 1)	3379	10266(9 7)	3069	8034(9 7)	2559
Drugs pharmaceuticals and fine chemicals	4494(4 4)	1069	3706(4 1)	1015	5228(4 1)	1407	4342(3 7)	1223	3409(3 2)	1019	2512(3 0)	800
Dyes intermediates and coal tar chemicals	1486(1 5)	354	1642(1 8)	450	2228(1 8)	599	1969(1 7)	562	1627(1 5)	486	1506(1 8)	480
Plastic and linoleum products	1457(1 4)	347	1395(1 5)	382	1904(1 5)	512	1886(1 6)	539	1958(1 8)	585	1502(1 8)	478
Manufactured goods classified chiefly by materials	53243(52 3)	12671	46433(51 1)	12721	64753(51 3)	17423	60439(50 9)	17025	56562(53 2)	16911	46185(55 9)	14709
Leather footwear	695(0 7)	165	763(0 8)	209	1009(0 8)	272	1198(1 0)	337	1139(1 1)	341	1725(2 1)	549
Gems and jewellery	17031(16 7)	4053	12759(14 0)	3496	19014(15 1)	5116	16872(14 2)	4753	17644(16 6)	5275	14131(17 1)	4500
Cotton yarn fabrics madeups etc	8539(8 4)	2032	9235(10 2)	2530	12094(9 6)	3254	11082(9 3)	3122	8619(8 1)	2577	7014(8 5)	2234
Manmade yarn, fabrics madeups etc	2148(2 1)	511	2093(2 3)	573	2854(2 3)	768	2494(2 1)	703	2511(2 4)	751	1928(2 3)	614
RMG cotton and acessories	9375(9 2)	2231	7595(8 4)	2081	10429(8 3)	2806	10439(8 8)	2941	9454(8 9)	2827	7856(9 5)	2502
Capital goods	9305(9 1)	2214	8603(9 5)	2357	11937(9 5)	3212	10904(9 2)	3072	9010(8 5)	2694	7214(8 7)	2298
Metal manufactures	3192(3 1)	760	2561(2 8)	702	3985(3 2)	1072	3349(2 7)	914	2764(2 6)	826	2217(2 7)	706
Machinery and instruments	3534(3 5)	841	3171(3 5)	869	4314(3 4)	1161	3753(3 2)	1057	2776(2 6)	830	2282(2 8)	727
Transport equipments	2103(2 1)	500	2368(2 6)	649	3117(2 5)	839	3290(2 9)	969	3094(2 9)	925	2422(2 9)	771
Others	3630(3 6)	864	3353(3 7)	919	5471(4 3)	1472	4240(3 6)	1194	3543(3 3)	1059	2392(2 9)	762
Electronic goods	1448(1 4)	345	2097(2 3)	575	2600(2 1)	700	2782(2 3)	784	2242(2 1)	670	1294(1 6)	412
Total (Incl errors and omissions)	101850(100.0)	24239	90939(100.0)	24914	126286(100.0)	33980	118817(100 0)	33470	106354(100 0)	31797	82673(100 0)	26330

Figures in brackets are percentages to respective totals * Provisional Figures

SRF

Financial Restructuring

IN order to capitalise on the liberalisation process, the company had zeroed in on industrial yarns, fabrics and fluorochemicals as its core business. The company disinvested its holdings in SRF Finance and SRF Nippondenso and acquired Ceat's nylon tyre cord plant in 1995 at a cost of Rs 325 crore. However, despite becoming one of the top players in the world in the nylon tyre cord segment after this acquisition, and having international level capacity, SRF was unable to post a satisfactory performance in 1997-98 While the company's net sales and operating profit were virtually stagnant, net profit plummeted sharply by 77.4 per cent following a steep increase in interest costs (up 12.3 per cent). Price realisation fell from an average of 231 per kg in 1996-97 to Rs 173 per kg in the year under review.

Meanwhile, as a part of its financial restructuring exercise, SRF has started retiring high cost debt. It received foreign currency loans worth Rs 108 crore from ICICI and DM, 18.9 million from IFCI and used the proceeds to repay ICDs, short-term debentures and short-term bank loans raised earlier. This move is expected to give the company some relief on the interest front which was one of the main factors affecting its performance in 1997-98. The company also tapped the capital market with a rights issue of Rs 48 crore.

SRF is currently India's leading manufacturer of nylon tyre cord fabric with a market share of 40 per cent in terms of sales, as also in refrigerant gases with a market share of 40 per cent. The company is also globalising its operations and for this purpose has set up a Rs 100 crore 8,000 tpa nylon tyre cord plant at Jabel Ali in Dubai. The plant was built in technical collaboration with Ayaha of Japan. The capacity of the plant is to be raised to 20,000 tpa soon. This facility is expected to help the company cater to the west Asian, African and European markets.

SRF has also become the only spinner in the country with fully integrated facilities including dipping. Also, it is currently a national leader in belting fabrics with a market share of 60 per cent, in addition to commanding a market share of 40 per cent in the fish twine segment. The company's fluorochemicals plant in Bhiwadi is a swing plant between chlorofluorocarbons and HCFCs and two-thirds of its production is exported to over 45 countries. It plans to develop new products as CFCs get phased out from the country. The company has hived off its ophthalmic lens business to a joint venture and has signed a marketing joint venture agreement in Paris recently with Essilor International SA, a world leader in plastic ophthalmic lens. The proposed name of the joint venture company would be Essilor-SRF Optics, and Essilor will be the majority shareholder with 74 per cent holding. This agreement will enable the joint venture to market advanced ophthalmic lenses in the domestic market.

CIPLA

New Export Markets

A leader in several segments in the pharmaceutical industry, Cipla has a diversified portfolio of brands. The company performed well in 1997-98 notching up a 13.8 per cent increase in net sales and a 20.3 per cent rise in operating profit. A sharp fall in interest charges (down 76.8 per cent) helped the company post a 44.1 per cent increase in its bottomline during the year under review. With earnings per share shooting up from Rs 35.4 to Rs 51, the company decided to raise the dividend rate from 35 per cent last year to 55 per cent. Cipla has had a generous payout ever since its inception. In fact, to date up to 92 per cent of its equity is made up of bonus shares issued earlier. No wonder the company enjoys a high investor fancy with its scrip quoting at a price to earnings ratio of around 26.5 times. It is also considered to be one of the most efficient pharmaceutical companies in the country today.

The company claims that its encouraging performance was mainly due to good margins on exports, rationalisation of product mix in the domestic market and its low interest costs. On the export front, formulations and bulk drugs contributed equally with the company exporting to the US, Australia, South Africa, Algeria, Yemen, Iran and Vietnam. The company introduced a range of sophisticated products during the year. These included Alerid-D (cetirizine, pseudoephedrine SR tablets) which is the antihistamine and decongestant combination for cold and congestion; and Amlopres L (amlodipine, lisinopril bi-layered tablets), a therapeutic advancement in hypertension management. It also introduced Aquatears (polyvinyl alcohol, povidone eye drops), a unique formulation for dry eyes; and Azee 1000 (azithromycin tablets), a single dose for management of STDs.

Meanwhile, for the first half of 1998-99, Cipla has posted a 20 per cent rise in net sales as compared to the corresponding period last year. Net profit too improved by 40 per cent over the same period. The company is targeting a turnover of Rs 575-600 crore for fiscal 1998-99 of which an amount in excess of Rs 100 crore is expected to come from exports. Exports have been a major focus point for the company and its policy of exporting high technology products contributed substantially to its overall profitability. In fact, Cipla overcame the decline in sales to the CIS countries and other setbacks by consolidating its presence in other international markets such as the US, Europe, Australia and regions of Latin America, Africa and west Asia. The company's exports, however, have been restricted due to the curb on export of new drug molecules unapproved by Indian authorities.

BLUE STAR

Market Leader

Airconditioning and refrigeration major Blue Star saw a mixed performance in 1997-98. While net profit was higher by 3 per cent over 1996-97, its operating profit declined drastically by 20 per cent. Only a sharp decline in tax provision (down 70.2 per cent) helped it post a 5 per cent increase in its bottomline during the year under review. The company maintained its leadership position in the central airconditioning segment despite subdued market conditions and a general liquidity crunch in the economy.

The company is now hiving off its software division into a separate company christened Blue Star Infotech. Though the software division currently contributes a mere 5 per cent of the company's total turnover, it is one of the fastest growing and most profitable businesses undertaken. The new infotech company will come into existence with a share capital of Rs 10 crore and shareholders of Blue Star will be given one share in the software company and three shares of Blue Star for every four shares held. The move to hive off the unit has been prompted by the fact that under Section 80HHE of the Income

(Rs lakh)

Financial Indicators	Blue Star March 1998	Blue Star March 1997	SRF March 1998	SRF March 1997	CIPLA March 1998	CIPLA March 1997
Income/appropriations						
1 Net sales	43099	41857	56116	55647	48290	42439
2 Value of production	43552	42383	55722	56248	51456	43721
3 Other Income	1865	2017	1113	1274	1615	2598
4 *Total income*	45417	44400	56835	57522	53071	46319
5 Raw materials/stores ahd spares consumed	33626	32641	25634	26432	16875	15023
6 Other manufacturing expenses	245	196	5647	5204	12585	10949
7 Remuneration to employees	4710	4310	3081	2844	2250	1841
8 Other expenses	3960	3659	5357	6075	6789	6389
9 *Operating profit*	2876	3594	17116	16967	14572	12117
10 Interest	556	493	13676	12181	244	1050
11 *Gross profit*	2616	2757	3865	5086	14367	11075
12 Depreciation	812	436	3488	3499	869	800
13 *Profit before tax*	1801	2318	377	1587	13498	10275
14 Tax provision	250	840	46	121	3300	3200
15 *Profit after tax*	1551	1478	331	1466	10198	7075
16 Dividends	1043	1043	34	490	1209	770
17 Retained profit	508	435	297	976	8989	6305
Liabilities/assets						
18 Paid-up capital	2710	2710	4345	4445	1999	1999
19 Reserves and surplus	8037	7547	33438	29840	34434	25472
20 Long-term loans	3994	2996	48159	43740	1247	1189
21 Short-term loans	2050	300	6814	13899	612	981
22 Of which bank borrowings	NA	NA	4014	4957	612	781
23 Gross fixed assets	12137	9574	83614	74570	18376	15961
24 Accumulated depreciation	3486	2738	20930	16378	6127	5295
25 Inventories	7345	7022	5886	7597	14790	10819
26 Total assets/liabilities	31109	26511	105607	106822	54863	40999
Miscellaneous items						
27 Excise duty	NA	NA	11465	13082	3153	2750
28 Gross value added	8194	7015	20594	19768	16020	11917
29 Total foreign exchange income	4703	3453	5702	5833	7361	6248
30 Total foreign exchange outgo	4077	3176	5728	7702	4829	3693
Key financial and performance ratios						
31 Turnover ratio (sales to total assets) (%)	138.54	157.89	53.14	52.09	88.02	103.51
32 Sales to total net assets (%)	256.68	308.84	60.50	60.54	126.11	143.18
33 Gross value added to gross fixed assets (%)	67.51	73.27	24.63	26.51	87.18	74.66
34 Return on investment (gross profit to total assets) (%)	8.41	10.40	3.66	4.76	26.19	27.01
35 Gross profit to sales (gross margin) (%)	6.07	6.59	6.89	9.14	29.75	26.10
36 Operating profit to sales (%)	6.67	8.59	30.50	30.49	30.18	28.55
37 Profit before tax to sales (%)	4.18	5.54	0.67	2.85	27.95	24.21
38 Tax provision to profit before tax (%)	13.88	36.24	12.20	7.62	24.45	31.14
39 Profit after tax to net worth (return on equity) (%)	14.43	14.41	0.88	4.28	27.99	25.75
40 Dividend (%)	35.00	35.00	NA	10.00	55.00	35.00
41 Earning per share (Rs)	5.72	5.45	0.74	3.51	51.02	35.39
42 Book value per share (Rs)	36.85	34.97	54.73	62.47	176.62	131.67
43 P/E ratio	15.73	NA	14.84	NA	26.52	NA
44 Debt-equity ratio (adjusted for revaluation) (%)	40.00	31.61	216.26	171.72	3.53	4.52
45 Short-term bank borrowings to inventories (%)	NA	NA	68.20	65.25	4.14	7.22
46 Sundry creditors to sundry debtors (%)	68.62	66.06	56.95	66.81	67.10	46.03
47 Total remuneration to employees to value added (%)	57.48	61.44	14.96	14.39	14.04	15.45
48 Total remuneration to employees to value of production (%)	10.81	10.17	5.53	5.06	4.37	4.21
49 Gross fixed assets formation (%)	26.77	49.52	12.13	7.53	15.13	14.54
50 Growth in inventories (%)	4.60	1.37	–22.52	8.81	36.70	17.83

NA: means not available.

Tax Act software exports can claim tax deductions only if exports are routed through a separate company.

Blue Star has signed a memorandum of understanding with the Agricultural and Processed Food Products Export Development Authority (APEDA) for setting up a cold storage facility at the Bangalore airport for cut flowers. The project envisaged a total outlay of Rs 1.2 crore and a total built-up area of 5,000 sq ft, inclusive of pelletisation facilities and would include phyto-sanitary and cargo clearance facilities. While Mysore Sales International, a Karnataka government undertaking, was expected to co-ordinate the project, APEDA was to fund the entire project.

Meanwhile, Blue Star is considering entering into a joint venture with US based York International Corporation for the manufacture of industrial refrigeration products. The two sides were first expected to conduct a feasibility study and a decision was to be taken only after that. While Blue Star is the largest player in the Indian industrial airconditioning segment, the US company is a global major in the chiller market. In fact the two sides already have a technical tie-up in place for about 15 years. Over the years, Blue Star has been introducing chillers, which is the heart of every airconditioner, through this tie-up. The current collaboration is for manufacturing centrifugal and reciprocating packaged chillers. These are manufactured at the company's Thane plant near Mumbai. The two companies are now planning to enter into a tie-up for the latest range of chillers, the screw chiller.

Blue Star, which has an installed capacity of 11 lakh airconditioning units at its Dadra plant, is planning to contract manufacture of components as well as finished products for its competitors. This will enable it to use the plant's idle capacity. The company's Dadra plant is currently operating at about 65 to 70 per cent capacity. The company is also planning to manufacture cooling coils, outdoor units for split airconditioners and window ACs for its competitors. Cooling coils are a vital input in every AC.

The company is now strengthening its cold room manufacturing base to meet the growing demand from hotels and multinational fast-food chains. For this purpose, it has recently entered into a manufacturing collaboration with the US based Kolpak, a leader in pre-fabricated PUF panels, besides its existing tie-up with US refrigeration equipment major Bohn since 1995.

Monetary Policy Hampered by Fiscal Inaction

The relatively credible programme of fiscal correction presented in the 1999-2000 budget, combined with low inflation and reduced credit offtake, has emboldened the Reserve Bank to try to bring down interest rates. However, the attempt is unlikely to revive industry in the absence of a sizeable increase in public expenditure and rapid expansion of bank credit.

I
Policy Developments

BOTH the *Economic Survey* and the Union Budget have predominantly focused on the need to reduce the fiscal deficit. If one aspect of the budget has acquired a degree of credibility (other than the reform of the excise taxes), it is the attempt made to contain the deficit by additional resource mobilisation through direct taxes and lower increases in expenditures and by dissociating from it the states' share of small savings collections. Even though symbolic, the establishment of a Guarantee Redemption Fund with an initial corpus fund of Rs 50 crore to help curb the growth of government's contingent liabilities fits in with the proposed medium-term strategy of attaining fiscal health; it is hoped that similar funds would be set up by the states.

In the altered composition of gross fiscal deficit of the central government, net market borrowings would now constitute the bulk (about 72 per cent against about 50 per cent in the recent past). For 1998-99 so far, the government has mobilised a gross amount of Rs 93,203 crore or a net amount of Rs 62,203 crore. However, the revised estimates for the year have placed the net market borrowing at Rs 64,911 crore, thus providing for a further cushion of Rs 2,708 crore. There is one more fortnightly floatation of 364-day treasury bills in March beyond the figures shown in Table 1 which may fetch about Rs 750 crore. Though the government has given out the market feeler that it is not planning to borrow anymore through dated securities this year, it is still contingent upon whether the use of ways and means advances remains within the limit of Rs 7,000 crore; as of March 5, they stood at Rs 6,853 crore. Even the tax revenue receipts up to February are reportedly behind those projected in the revised estimates.

For 1999-2000, the budget has provided for an estimated gross market borrowing of Rs 84,014 crore or a net borrowing of Rs 57,461 crore, that is, lower than the current year by about Rs 9,000 crore and Rs 7,500 crore, respectively. Though the size of market borrowings in 1998-99 was the highest ever, its immediate pressure on the financial system was mitigated to a considerable extent by the RBI absorbing as much as Rs 38,205 crore or 55 per cent of the net dated security borrowings. This was achieved rather smoothly by the confluence of a variety of factors: sizeable liquidity growth as a result of the Resurgent India Bonds (RIBs) and slower commercial credit growth. This, in turn, facilitated the RBI to unload on to the market, through open market operations (OMOs), securities worth over Rs 26,000 crore so far.

The relatively credible programme of fiscal correction, combined with low inflation and reduced credit offtake, has emboldened the RBI to reduce interest rates immediately after the budget: reduction of the Bank rate from 9 per cent to 8 per cent and the repo rate from 8 per cent to 6 per cent. The cash reserve ratio (CRR) has also been reduced by half a percentage point from 11 per cent to 10.50 per cent. Following these measures, some major banks have reduced their prime lending rates to 12 per cent and financial institutions to 13.50 per cent – reductions of about 0.50 to 0.75 percentage point each. While these may provide a boost to the business

Table 1: Trends in Centre's Market Borrowings

(Rupees crore)

Descriptions	Actuals 1997-98 Gross	Actuals 1997-98 Net	Actuals 1998-99$ Gross	Actuals 1998-99$ Repayment	Actuals 1998-99$ Net	Budget Estimates 1999-2000 Gross	Budget Estimates 1999-2000 Repayment	Budget Estimates 1999-2000 Net
1 Market Borrowings	3,000	1,002						
2 Other Medium and Long-term Loan	40,390	31,486	83,753	14,803	68,950	84,014	16,353	57,461
3 364-Day Treasury Bills	16,247	8,006	9,450	16,197	(6,747)		10,200	
Total	59,637	40,494	93,203	31,000	62,203	84,014	26,553	57,461
of which:								
Ten-year and above maturity	10,000(31 per cent)*		31,209(45 per cent)*					
Private Placements with RBI	11,000(34 per cent)*		38,205(55 per cent)*					

* Per cent of net dated security borrowings. $ Up to March 20.

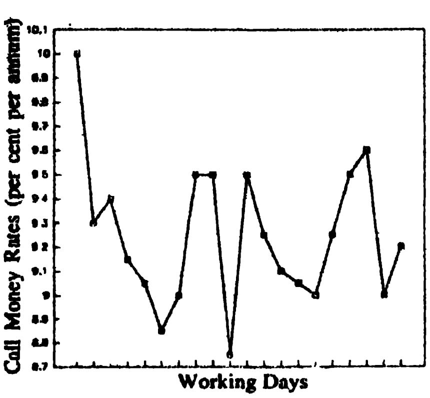
Table 2: Estimated Flow of Liquidity into the Financial System during February 1999

(Rupees crore)

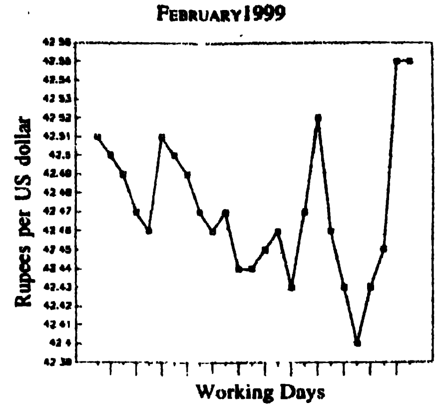
Week Ended	26 Inflow	26 Outflow	26 Net	19 Inflow	19 Outflow	19 Net	12 Inflow	12 Outflow	12 Net	5 Inflow	5 Outflow	5 Net
Auctions and Redemptions												
14-day T-bills	500	500	–	100	100	–	500	500	–	11	100	-89
91-day T-bills	725	100	625	700	125	575	500	100	400	225	100	125
364-day T-bills	19	480	-461	–	–	–	–	750	-750	–	–	–
Government securities	–	–	–	–	–	–	1071	–	1071	–	–	–
Coupon Payments	669	–	669	198	–	198	314	–	314	498	–	498
CRR Interest Payments	–	–	–	–	–	–	–	–	–	–	–	–
Net Foreign Assets (variation)	1058	–	1058	–	794	-794	732	–	732	383	–	383
Total	2971	1080	1891	998	1019	-21	3117	1350	1767	1117	200	917
Memo Items												
Open Market Operations (RBI)	–	521	-521		108	-108	–	403	403	–	1559	1559
Repos by RBI	3710	2909	801	371	1225	-854	2251	2484	-233	1713	–	1713

Note: A negative sign implies net outflow. – means nil.

Graph A: Daily Top-End Quotations of Call Money Rates, February 1999



Graph B: Spot Quotations for the US Dollar in the Domestic Inter-Bank Market, February 1999



psychology of the corporates, they are unlikely to help revive industrial activity which required an augmentation of the aggregate demand in the economy through a sizeable increase in public expenditure and rapid expansion of bank credit. Also, the above measures are on conventional lines, but the occasion demanded certain radical steps such as placing a cap on interest rates offered on bonds say, at 12.5 to 13 per cent, and bringing down the long-term rates of interest rather sharply to levels below those charged by banks for working capital. To facilitate the latter, the RBI could provide special refinance and rediscounting facilities to the FIs at the Bank rate or thereabout. Overall, a decisive thrust on bank credit and its distribution, and away from conventional monetary aggregates, is the need of the hour.

II
Call and Forex Markets

The call rates, generally ruling at 9-9.50 per cent, continued to be firm and stable almost throughout the month, except on reporting Fridays, because of the underlying tightness of liquidity (Graph A). This was evident from the RBI not receiving a single application for its fixed-rate repos for an entire week towards early February and for some days in mid-February. The liquidity squeeze came despite inflow of funds through interest and redemptions of government paper and repo reversals (Table 2). The tightness was caused by State Bank of India, the largest lender in the call market, remaining out of the market for almost 10 days during the month as it was reportedly diverting its rupee resources to buy dollars, either for the government or for some oil companies. At the end of the month, the two-day strike by bank employees on February 25-26 further contributed to the liquidity tightness. The NSE's Mumbai inter-bank offered rate (MIBOR) ranged from 8.01 per cent to 9.29 per cent and the bid rate (MIBID) from 8.51 per cent to 9.31 per cent during the month, with unusually low standard deviations. The unususal stability observed in call rates was evident from the simple averages of the rates remaining at 9 or 9.1 per cent for all the four weeks of the month (Tables 3 and 4). In the post-budget period, the RBI's announcement to cut interest rates and the cash reserve ratio (CRR) failed to bring down the call rate immediately.

Forex Market

Most of February was yet another period of calmness in the domestic forex market and stability in the rupee's exchange rate *vis-a-vis* the US dollar. The RBI's reference rate moved within a narrow range of Rs 42.40 to Rs 42.50 to a dollar for the first 24 days of the month (Graph B). Some additional dollar purchases by SBI were squared off against improved inflows of FII investments and invisibles. In trade-weighted terms, the rupee in fact appreciated by about 1.5 per cent both in nominal and real terms between January 29 and February 19. In the forward segment, banks and traders preferred short-duration covering and hence one-month premia firmed up and premia differentials considerably narrowed (Graph C).

There was, however, a small correction after the government of India's *Economic Survey* was released on February 24 which, with its observation on the need to monitor closely the value of the rupee to ensure that our exports continued to be price competitive in the light of exchange rate developments in competitor countries, set off speculation on the possible downward adjustment of the rupee value or even its free floatation after the central budget. For the next three days, the rupee rate slipped each day to trade finally at a low of Rs 42.70 on February 26. But, with the budget speech not signalling any drastic changes in the country's forex policy and with the RBI following up the budget with reductions in interest rates but without any easing of forex market regulations, forward premia fell in the process of adjusting to lower

Table 4: Daily Quotations of Highs and Lows of Call Rates in Per Cent Per Annum: Simple Statistical Characteristics

	All Four Weeks of the Month	February 1999 Week Ended				All Four Weeks of the Month	January 1999 Week Ended			
		26*	19	12*	5		29	22	16*	8
Simple Mean	9 0	9.0	9.1	9 0	9.1	10.6	8 5	11.4	11.8	9.0
Standard Deviation	0.3	0 5	0.2	0.3	0.4	5.7	0.3	6.3	5.0	0.2
Coefficient of Variation (percentages)	3.8	5.2	2.0	3.6	3.8	53.7	4.1	55.5	42.4	2.5

* Data for reporting Fridays (RF) are omitted.

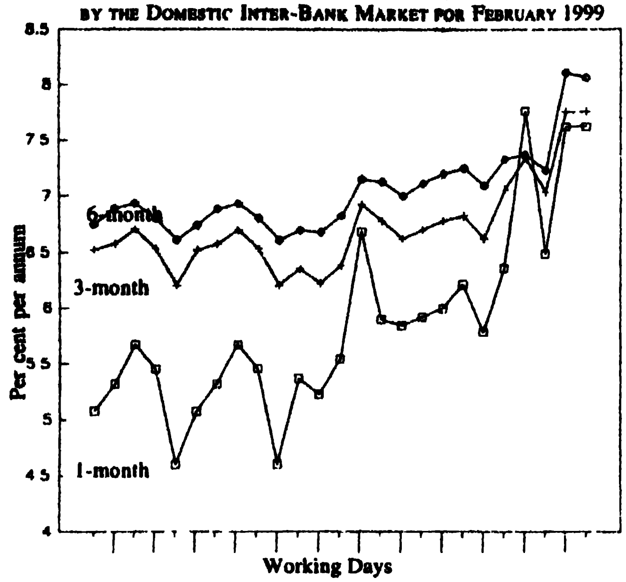
Table 3. Call Money Rates

(Per cent per annum)

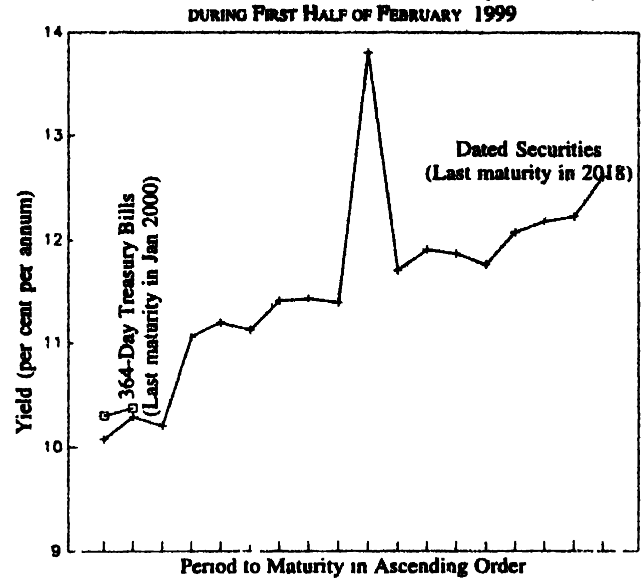
Items	February 1999				January 1999			
	26 (RF)	19	12(RF)	5	29 (RF)	22	15(RF)	8
Weekly range	7.15-9.25	8.75-9 50	7 00-9.60	8.65-9.40	6.00-9.00	8.50-35.00	8.90-30 00	8.50-9.50
	(7.50-10.00)	(8.65-15.50)	(0.75-11.50)	(7.00-17.00)	(2.00-120.00)	(15.00-100.00)	(2.00-10.00)	(8.00-9.75)
Weekend (Friday)	8.80-9.20	8.90-9.25	8.50-8.75	8.90-9.05	6.50-8.00	8 00-9.00	10.00-35.00	9.00-9.40
	(8.75-9.25)	(8.75-9.50)	(1.00-5.00)	(8.50-11.25)	(1.00-12.00)	(55.00-120.00)	(1.50-6.00)	(8.75-10.00)
DFHI lending rates(range)	7.50-10.00	8.90-9.60	na	8.40-9.75	7.00-9.20	8.90-34 00	9.00-30.00	8.75-9.75
	(5.00-9.35)	(8.75-14.75)	(2.25-11.50)	(8 25-16.00)	(2.25-110.00)	(25.00-75.00)	(5.50-1.00)	na

Figures in parentheses represent weekly range during similar period last year.

Graph C: Annualised Daily 1-Month, 3-Month and 6-Month Forward Premia in Percentage for the US Dollar by the Domestic Inter-Bank Market for February 1999



Graph D: Yield Curves for 364-Day Treasury Bills and Dated Securities: Day of Maximum Transactions (February 2) during First Half of February 1999



interest rates In the spot market, corporates sold dollars and banks were forced to unwind their long dollar positions built earlier. As a result, the rupee gained ground against the dollar, with the RBI's reference rate touching Rs 42.51 to a dollar in the first week of March and Rs 42.43 in the second week.

III Primary Market

Dated Securities

The market received some respite during February as there was no fresh borrowing by the central government through dated securities – either by way of auction or by private placement. There was, however, the last tranche of three state government loans. The states of Goa, Andhra Pradesh and Uttar Pradesh put their 12.50 per cent 2009 issues on tap with no notified amount. After the state of Punjab successfully raised funds through an auction in January, a variant of the experiment was adopted in respect of these states, that is, leaving the amount of subscription to the market but at a fixed coupon. The experiment succeeded, with the state of Goa receiving the targeted amount in the first two hours of the tap opening, resulting in closing of the issue by 12.30 pm on that day. The other two states too received the targeted amounts in the next two days and the issues closed on the third and the final day of the tap. The three states together raised Rs 850 crore.

Treasury Bills

The yields on 14- and 91-day TBs showed a wide variation during the month For instance, the yield on 14-day bills alternated between 9.13 per cent and 9.39 per cent during the four weeks and the variation in the yields was despite the fact that there was no devolvement on the RBI or PDs in any of the auctions; it reflected unevenness in the pattern of bidding by the market caused by uncertainty on the interest rate front. It also indicated that the yields were completely market driven.

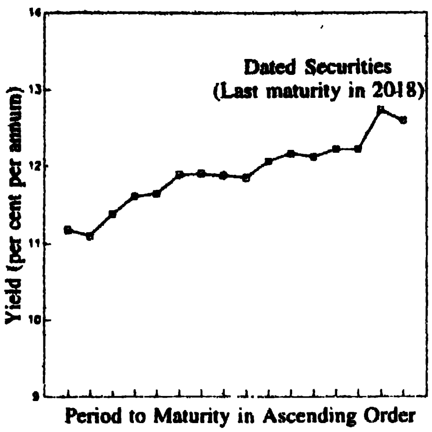
Table 5: Auctions of 14-Day Treasury Bills

(Amount in rupees crore)

Date of Auction	Notified Amount	Bids Tendered		Bids Accepted		Subscription Devolved on RBI (Amount)	Cut-off Price (Rupees)	Cut-off Yield Rate (Per Cent)	Amount Outstanding on the Date of Issue
		No	Face Value (Amount)	No	Face Value (Amount)				
(1)	(2)	(3)	(4)	(5)	(6)	(7)*	(8)	(9)	(10)
1998									
Feb 6	-	2	25.00	1	20.00	5.00	99.72	7.30	495.00
		(1)	(150.00)	(1)	(150.00)		[99.72]		
Feb 13	-	2	45.00	1	40.00	55.00	99.72	7.30	570.00
		(1)	(300.00)	(1)	(300.00)		[99.72]		
Feb 20	–	3	90.00	3	90.00	–	99.72	7.30	485.00
		(-)	(0.00)	(-)	(0.00)		[99.72]		
Feb 27	–	4	210.00	3	110.00	40.00	99.72	7.30	440.00
		(1)	(200.00)	(1)	(200.00)		[99.72]		
1999									
Feb 5	100.00	16	348.00	11	100.00	0.00	99.65	9.13	600.00
		(1)	(400.00)	(1)	(400.00)	(0.00)	[99.65]	[9.13]	
Feb 12	100.00	12	272.40	11	100.00	0.00	99.64	9.39	600.00
		(-)	(0.00)	( )	(0.00)	(0.00)	[99.65]	[9.13]	
Feb 19	100.00	14	370.00	3	100.00	0.00	99.65	9.13	600.00
		(1)	(400.00)	(1)	(400.00)	(0.00)	[99.65]	[9.13]	
Feb 26	100.00	10	252.30	10	100.00	0.00	99.64	9.39	600.00
		(-)	(0.00)	(-)	(0.00)	(0.00)	[99.65]	[9.13]	

Figures in parentheses in cols 3 to 6 represent numbers and amounts of non-competitive bids which are not included in the total
Figures in the square brackets under cols 8 and 9 represent weighted average price and respective yield.
* Bracketed figures in col 7, if any, relate to devolvement on primary dealers, exclusive of RBI – No bid.

Graph E: Yield Curve for Dated Securities: Day of Maximum Transactions (February 24) During the Second Half of February 1999



The cut-off yield on 91-day bills was raised from 9.37 per cent in its first auction to 9.54 per cent in the subsequent three auctions and that on 364-day bills from 10.48 per cent on February 10 to 10.65 per cent on February 24. The notified amount for the latter paper has been kept constant at Rs 750 crore since January.

Commercial Instruments

According to data released by the RBI, commercial paper (CP) floated by corporates fell from the peak of Rs 1,215 crore during the fortnight ended January 15 to Rs 972 crore during the fortnight ended February 15 and further to Rs 762 crore in the next fortnight. The interest rates in the fortnight ending February 28 were at the shorter end higher by about 60 basis points reflecting uncertainties but were marginally lower at the longer end compared to interest rates of a month ago. Interest rates on CPs at 10.20-13.00 per cent during the latest fortnight were also significantly lower than 11.75-18.00 per cent on April 15 last year. With the lower interest rates induced by reduction in the bank rate and the RBI's repo rate effected on March 1, the CP market is expected to get a boost.

The data on Certificates of Deposits (CDs) released by the RBI pertained to November 6, 1998 when CDs outstanding had dipped to a low of Rs 5,858 crore as compared with the peak of Rs 14,584 crore as of April 10, 1998. There is hardly any activity reported in this paper but, with the year-end approaching, banks move towards window-dressing, and hence we may witness some activity in the CD market. Reductions in short-term deposit rates by some banks may also help the revival of the CD route.

Bonds Market

Buoyancy in the private placement segment continued unabated. The latest press release from Prime Database discloses that in the first nine months (April-December) of the financial year 1998-99, 124 institutions and corporates mobilised an amount of Rs 26,719 crore which represents a 6 per cent increase over Rs 25,127 crore raised in the corresponding period last year. Among these, the all-India FIs and banks topped the list with 55 per cent of the total mobilisation (Rs 14,592 crore) followed by state-level undertakings, 20 per cent (Rs 5,443 crore); private sector, 19 per cent (Rs 5,130 crore); PSUs, 5 per cent (Rs 1,403 crore); and state FIs, 1 per cent (Rs 150 crore).

If the previous month was dominated by debt issues from banks, the month of February was predominant particularly with state PSUs, and almost all of them

Table 7: Auctions of 364-Day Treasury Bills

(Amount in rupees crore)

Date of Auction	Notified Amount	Bids Tendered		Bids Accepted		Subscription Devolved on RBI (Amount)	Cut-off Price (Rupees)	Cut-off Yield Rate (Per Cent)	Amount Outstanding on the Date of Issue
		No	Face Value (Amount)	No	Face Value (Amount)				
1998									
Feb 12	.	1	3.00	–	–	–	–	–	16771.00
Feb 26	.	6	169.43	1	19.43	–	92.61	7 98	16355.00
1999									
Feb 10	750.00	39	1108.00	29	750.00	0.00	90.54	10.45	8019.00
						(0.00)	[90.57]	[10.41]	
Feb 24	750.00	20	480.00	20	480.00	0.00	90.40	10.62	8750.00
						(0.00)	[90.43]	[10.58]	

.. not available. – no bid. Figures in the square brackets represent weighted average price and the respective yield. Figures in brackets represent devolvement on Primary Dealers (PDs).

Table 6: Auctions of 91-Day Treasury Bills

(Amount in rupees crore)

Date of Auction	Notified Amount	Bids Tendered		Bids Accepted		Subscription Devolved on RBI (Amount)	Cut-off Price (Rupees)	Cut-off Yeild Rate (Per Cent)	Amount Outstanding on the Date of Issue		
		No	Face Value (Amount)	No	Face Value (Amount)				Total	With RBI	Outside RBI
(1)	(2)	(3)	(4)	(5)	(6)	(7) *	(8)	(9)	(10)	(11)	(12)
1998											
Feb 6	100.00	4	2.50	1	1 50	73.35	98.20	7.33	3316.00	466.00	2850.00
		(2)	(25.15)	(2)	(25.15)		[98.20]	[7.33]			
Feb 13	100.00	1	40.00	–	–	75.00	98.20	7.33	3116.00	466.00	2650.00
		(1)	(25.00)	(1)	(25.00)		[98.20]	[7.33]			
Feb 20	100.00	1	40.00	–	–	75 00	98.20	7.33	2916.00	466.00	2450 00
		(1)	(25.00)	(1)	(25.00)		[98.20]	[7.33]			
Feb 27	100.00	3	125.00	–	–	75.00	98.20	7.33	2716.00	466.00	2250.00
		(1)	(25.00)	(1)	(25 00)		[98.20]	[7.33]			
1999											
Feb 5	100.00	10	239.00	5	100 00	0.00	97.71	9.37	3950.35	208.20	3742.15
		(0)	(0.00)	(0)	(0.00)	(0.00)	[97.71]	[9.37]			
Feb 12	100.00	11	113.00	9	93.00	0.00	97.67	9 54	3375.35	208 20	3167.15
		(1)	(25.00)	(1)	(25.00)	(7.00)	[97.67]	[9.54]			
Feb 19	100.00	9	117.00	7	91.00	0.00	97.67	9.54	2750 35	208.20	2542.15
		(0)	(0.00)	(0)	(0.00)	(9.00)	[97.67]	[9.54]			
Feb 26	100.00	5	57.00	3	31.00	47.00	97.67	9.54	2450 35	255.20	2195.15
		(1)	(25.00)	(1)	(25.00)	(22.00)	[97 67]	[9.54]			

Figures in parentheses in cols 3 to 6 represent numbers and amounts of non-competitive bids which are not included in the total.
Figures in the square brackets under cols 8 and 9 represent weighted average price and respective yield.
* Bracketed figures in col 7, if any, relate to devolvement on primary dealers, exclusive of RBI.

infrastructure-related. The government of Maharashtra's four Irrigation Development Corporation (IDC) issues, viz, Konkan (KIDC), Tapi (TIDC), Vidharbha (VIDC) and Godawari Marathwada (GMIDC), have all been oversubscribed. These issues collectively raised Rs 690 crore by offering 14.5 per cent coupon rate on five-year guaranteed bonds with yield to maturity at 15.03 per cent. Among the issues which were carried over from the previous month, KSEB and APSEB fared well to meet with the targeted amount, whereas, TFCI faced it tough mainly due to downgrading of its rating by ICRA from 'LAA' to 'LAA-'. Among the fresh entrants, SAIL too suffered from downgradation and could collect merely Rs 50 crore so far on its seven-year privately placed secured bond offering a better coupon of 14.5 per cent to raise Rs 300 crore plus Rs 150 crore as greenshoe option. Yet another PSU issue in the market facing tough time has been the LAA rated seven-year bond from Bharat Electronics (BEL). It aims to raise Rs 100 crore by offering 13 per cent rate of coupon which is the lowest by any PSU in recent times. A five-year NCD from ITI was oversubscribed to the tune of Rs 150 crore against the issue size of Rs 94 crore. The issue carried an indicative band of 12.9-13.4 per cent and the final rate was arrived at through book-building mechanism. In the PSU category were also present the issues from Hutti Gold Mines Company (Rs 10 crore plus over-subscription – already mopped up Rs 7 crore) and Damodar Valley Corporation (Rs 120.55 crore), both with seven-year non-convertible bonds. The former offered a higher coupon rate of 14.75 per cent and is guaranteed by the government of Karnataka, whereas the latter's un-guaranteed bond offered 13.5 per cent.

The Konkan Railway issue sailed through successfully due to its innovative structuring. This three-year paper carrying a coupon of 12.6 per cent has met with the proposed amount of Rs 50 crore; it is still in the market to garner the greenshoe amount of Rs 30 crore. Managed by Kotak Mahindra, the issue carried an 'American Put' which implies that investors can exercise a put option anytime after the specified lock-in period of one year by giving a notice of 30 days, 60 days or 90 days which would, respectively, be entitled to a discount of 0.5 per cent, 0.25 per cent or redeemable at par.

Among the financial institutions (FIs), the ICICI's Safety Bonds-VI closed on February 9 after collecting Rs 450 crore against the issue size of Rs 600 crore and is likely to hit the market early next month with same size and instruments except a new one in line with retirement bond named as 'Wise Monthly Income Bonds'. IDBI came up with Flexibond Series VI to raise Rs 750 crore plus an option to retain an equal amount of over-subscription. Except the Retirement Bonds, all the three instruments, i e, Regular Income, Growing Interest and Infrastructure bonds, have the same features as the last issue. The new instrument – Retirement Bond – has a face value of Rs 5,000 and minimum investment is four bonds. On the offer are three options of receiving annual payments by the investors after a specified wait period. The options are: (1) seven annuities of Rs 1,500 per bond from the end of third year (YTM: 13.79 per cent); (2) 50 per cent of principal amount back at the end of fifth year plus five annuities of Rs 2,085 per bond from the end of sixth year (YTM: 14.05 per cent); (3) 10 annuities of Rs 1,635 per bond from the end of fifth year (YTM: 14.13 per cent). The Infrastructure Bonds enjoy tax benefits under Section 88, 54EA and 54EB. The IFCI's 150 crore issue was oversubscribed and collected Rs 200 crore. It had the option to retain the over-subscription. On the offer were five-year and seven-year bonds offering 14 per cent and 14.25 per cent rates of interest.

Among the banks, Bank of India, Central Bank of India and Syndicate Bank came to market, raised the targeted amounts very smoothly and closed soon thereafter. Only one NBFC was present in the market, that is, Shriram Transport Finance Company, which offered a five-year NCD to the investors in the private placement segment. The issue has been rated AA by Duff and Phelps. The coupon rate is 15 per cent for one-year and 18-months; 15.5 per cent for two-year and 16 per cent for three- to five-year tenure. The amount it proposes to raise in not known.

Table 9: Repo Transactions in Government Paper (Other than with the RBI) – February 1999

(Rupees crore)

Repo Period in Number of Days	Amount (Rupees Crore)	Range of Interest (Per Cent per Annum)
A Dated Securities		
1	1023	8.00-9.25 (8.59)
2	157	8.75-9.75 (9.16)
3	1095	8.15-10.00 (8.98)
4	245	8.90-10.00 (9.12)
5	511	8.75-9.25 (9.02)
7	115	9.15-9.40 (9.37)
8	90	8.80-10.00 (9.27)
9	35	9.30 (9.30)
10	40	9.30-10.05 (9.55)
11	148	9.15-10.25 (9.48)
12	125	9.05-9.60 (9.40)
13	50	9.50-10.05 (9.76)
14	1255	8.90-10.05 (9.49)
15	10	9.75 (9.75)
17	50	9.15 (9.15)
39	50	10.20 (10.20)
All Issues		
1-39	4998	8.00-10.50 (9.11)
B 91-Day TBs (All Issues)		
14	15	9.15-9.70 (9.52)
C 364-Day TBs (All Issues)		
14	53	9.30-9.55 (9.53)

Figures in brackets are weighted average interest rate.

Table 8: Auctions of Fixed-Yield Repos by RBI

(Amount in rupees crore)

Date of Auction (February) (1)	Number of Days (2)	Bids Tendered No (3)	Bids Tendered Face Value (Amount) (4)	Bids Accepted No (5)	Bids Accepted Face Value (Amount) (6)	Fixed Cut-off Yield Rate (Per Cent) (7)	Estimated Amount Outstanding
01	3		No application received			8	1103
02	3		"			8	0
03	3		"			8	0
04	4		"			8	0
05	4		"			8	0
06	4		"			8	0
08	3	1	2250	1	2250	8	2250
09	3	1	1	1	1	8	2251
10	3	1	140	1	140	8	2391
11	4		No application received			8	141
12	4	1	93	1	93	8	233
13	4	2	138	2	138	8	231
15	3		No application received			8	231
16	3		"			8	138
17	3	1	87	1	87	8	87
18	4	1	1000	1	1000	8	1087
19	4		No application received			8	1087
20	4	1	123	1	123	8	1123
22	3	1	2000	1	2000	8	2123
23	3	1	500	1	500	8	2623
24	3	1	18	1	18	8	2518
25	4	1	40	1	40	8	558
26	3	3	228	3	228	8	286
27	4	2	69	2	69	8	337
Total		18	6687	18	6687		

Appendix Table: Secondary Market Operations in Government Paper: RBI's SGL Data

(Amount in rupees crore)

Descriptions	Week ending February 1999: Yield to Maturity on Actual Trading 26 AMT	26 YTM	26 CY	19 AMT	19 YTM	19 CY	12 AMT	12 YTM	12 CY	5 AMT	5 YTM	5 CY	Total for the Month of February 1999 AMT	Total YTM	Total CY
1 Treasury Bills															
A 14-Day Bills	24.53	8.40		147.65	8.42		76.66	8.54		85.09	7.70		433.92	8.29	
B 91-Day Bills	367.50	8.81		559.89	8.89		379.61	8.75		465.58	8.92		1772.58	8.85	
C 364-Day Bills	23.00	10.31		274.88	9.34		506.81	9.31		663.44	8.54		1468.13	8.98	
2 GOI Dated Securities															
A Converted (Per Cent: Year)															
12.00 , 1999	127.00	10.25	11.98	176.00	9.58	11.96	219.00	10.00	11.97	272.87	10.03	11.96	794.87	9 96	11.97
13.25 , 2000	-	-	-	25.00	10.86	12.91	5.00	10.83	12.91	15.00	10.84	12.90	45.00	10.85	12.91
11.75 , 2001	-	-	-	38.01	11.43	11.67	163.03	11.41	11.67	160.00	11.42	11.67	361.04	11.42	11.67
12.50 , 2004	175.33	11.89	12.23	165.05	11.92	12.24	-	-	-	162.74	11.88	12.22	503.12	11.90	12.23
Sub-total	302.33	11.20	12.12	404.06	10.79	12.11	387.03	10.61	11.85	610.61	10.91	11.98	1704.02	10.86	12 01
B Regular (Per Cent: Year)															
13.00 , 1999	-	-	-	20.00	10.53	12.82	5.00	10.46	12.81	-	-	-	25.00	10.51	12.82
13 40 , 1999	-	-	-	-	-	-	15.00	10.44	13.09	40.00	10.44	13.08	55.00	10.44	13.09
13.70 , 1999	-	-	-	32.40	10.20	13.56	35.00	10.19	13.56	36.98	10.25	13.55	104.38	10.21	13.56
11.40 , 2000	317.25	11.19	11.37	259.00	11.20	11.37	330.87	11.17	11.37	584.60	11.19	11.37	1491.72	11.19	11.37
11.64 , 2000	50.00	11.12	11.57	30.00	11.12	11.56	85.00	11.08	11.56	165.00	11.12	11.56	330.00	11 11	11.56
12.14 , 2000	-	-	-	-	-	-	20.00	10.89	11.97	0.25	11.96	12.12	20.25	10 90	11.97
12.60 , 2000	-	-	-	-	-	-	-	-	-	15.00	10.48	12.36	15.00	10.48	12.36
13.85 , 2000	2.00	11.23	13.29	-	-	-	30.00	11.22	13.27	0.30	10.97	13 22	32.30	11.21	13.27
10.85 , 2001	20.16	11.41	10.98	8.85	11.39	10.98	22.50	11.40	10.98	91.93	11.42	10.98	143.45	11.41	10.98
11.00 , 2001	-	-	-	-	-	-	10.00	11.40	11.11	-	-	-	10.00	11.40	11.11
11.47 , 2001	-	-	-	0.45	11.42	11.46	-	-	-	14.55	11.42	11.46	15.00	11.42	11.46
11.55 , 2001	237.00	11.40	11.52	191.50	11.41	11 52	298.70	11.39	11.52	293.00	11.40	11.52	1020.20	11.40	11.52
12.08 , 2001	-	-	-	-	-	-	-	-	-	30.00	11.40	11.92	30.00	11.40	11.92
12.70 , 2001	-	-	-	-	-	-	-	-	-	35.00	11.38	12.32	35.00	11.38	12.32
13.55 , 2001	-	-	-	2.00	11 30	12.88	-	-	-	-	-	-	2.00	11.30	12.88
13.75 , 2001	10.00	11.39	13.15	-	-	-	-	-	-	-	-	-	10.00	11.39	13.15
13.85 , 2001	-	-	-	-	-	-	-	-	-	5.00	11.39	13.25	5.00	11.39	13 25
11.00 , 2002	15.00	11.55	11.17	1.00	11.54	11 16	9.00	11.54	11.16	30.00	11.53	11.16	55.00	11.54	11.16
11.15 , 2002	-	-	-	60.20	11.62	11 30	160.30	11.61	11.30	58.05	11.60	11.30	278.55	11.61	11.30
11.55 , 2002(I)	-	-	-	-	-	-	-	-	-	15.00	11.70	11.61	15.00	11.70	11.61
11.68 , 2002	60.00	11.63	11.67	90 00	11.61	11 66	205.00	11.60	11.65	-	-	-	355.00	11.60	11.66
12.69 , 2002	3.00	11.66	12.36	-	-	-	5.00	11.53	12.32	5.00	11.54	12.32	13.00	11.56	12.33
11.10 , 2003	15.00	11.71	11.33	-	-	-	5.08	11.73	11.33	-	-	-	20.08	11.72	11.33
11.75 , 2003	-	-	-	-	-	-	5.00	11.69	11.73	178.00	11.72	11.73	183.00	11.72	11.73
11.78 , 2003	-	-	-	247 81	11.73	11.76		-	-	-	-	-	247.81	11.73	11.76
11.75 , 2003	50.00	11.74	11.73	-	-	-	-	-	-	-	-	-	50.00	11.74	11.73
11.50 , 2004	10.00	11.90	11.68	26.60	11.89	11.68	-	-	-	25.02	11.86	11.67	61 62	11 88	11.67
11.95 , 2004	30.00	11.88	11.92	5.00	11.89	11.92	10.00	11.89	11.92	95.00	11.89	11.92	140.00	11 89	11 92
11 98 , 2004	105.30	11.92	11.95	181.00	11.84	11.91	160.20	11.91	11.95	210.53	11.91	11.95	657.03	11.89	11.94
12.59 , 2004	0.50	11.87	12.25	-	-	-	-	-	-	5 00	11 86	12.25	5.50	11.86	12.25
11.19 , 2005	-	-	-	1.00	12.17	11.69	9.18	12.00	11.61	-	-	-	10.18	12 02	11.62
11.25 , 2005	0.69	12.00	11.63	-	-	-	-	-	-	10.00	12.05	11.66	10 69	12 04	11.66
14.00 , 2005	-	-	-	15.04	12.07	12.92	0.90	11.99	12.88	0.40	11.86	12.81	16 34	12.06	12.92
14.00 , 2005 INSTAL	0.02	11.86	12.78	30.22	12.09	12.91	35 06	12.07	12.90	-	-	-	65.30	12 08	12.90
11.75 , 2006	10.01	12.07	11 93	0.20	12.06	11 93	-	-	-	15 42	12.08	11.94	25 63	12 07	11.94
13.85 , 2006 INSTAL	-	-	-	5.00	12.14	12.81	-	-	-	0.30	12.04	12.75	5 30	12 14	12.81
13.05 , 2007	0.50	12.06	12.43	0.38	12.15	12 48	-	-	-	0 35	12.16	12.49	1 23	12 12	12.46
12.00 , 2008	10.40	12.19	12.13	5.21	12.19	12.13	0 10	12 12	12 08	5.05	12 18	12.13	20.76	12.19	12.13
12.22 , 2008	-	-	-	-	-	-	30 00	12.21	12.22	-	-	-	30 00	12.21	12.22
12.25 , 2008	53.90	12.22	12.23	91 77	12.22	12.23	63 09	12.22	12.23	382.54	12.22	12.23	591.30	12.22	12.23
7.50 , 2010	0.34	12.29	10.53	0.40	12.30	10.54	6.69	12 30	10.54	6.84	12.34	10.58	14.26	12.32	10.56
11.50 , 2011	1.00	12.23	12.05	1.00	12.26	12.08	-	-	-	-	-	-	2 00	12.24	12.07
10.00 , 2014	0.80	12.94	12.40	0.40	13.80	13.16	-	-	-	-	-	-	1.20	13.22	12.65
12.60 , 2018	-	-	-	20.00	12.59	12.60	-	-	-	0.05	12.52	12.54	20.05	12.59	12.60
Sub-total	1003.61	11.50	11.61	1355.79	11.58	11 78	1558.96	11.46	11 69	2356.27	11.54	11.73	6274.63	11.46	11.65
C Zero Coupon Bonds (Per Cent: Year)															
2000	30.00	10.98	14.72	103.00	10.29	14.05	70.00	10.19	14 06	91.20	10 21	7.59	294.20	10.31	12.12
2000(II)	25 00	11.14	8.20	40.00	11.08	8.21	40.00	11.06	8 23	45.00	11 07	8.24	150.00	11.08	8.22
2000(III)	15.00	11.12	8.16	50.00	11.09	8.17	101.55	11.05	8 19	128.00	11.07	8.21	294.55	11.07	8.19
Sub-total	70.00	11.07	10.99	193.00	10.66	11.32	211.55	10.77	10 14	264.20	10.77	8.00	738.75	10.77	9.76
(A+B+C)*	1375.94	11.41	11.69	1952 84	11.32	11.80	2157.53	11.24	11.57	3231.08	11.36	11.47	8717.40	11.29	11.56
D RBI's Open Market Operations (Per Cent: Year)															
11.15 , 2002	-	-	-	0.07	11.60	11.30	55.00	11.60	11.30	2.00	11 60	11.30	57.07	11 60	11.30
11.98 , 2004	42.95	11.91	11.95	3.47	11.91	11.95	276.75	11.91	11.95	270.84	11 91	11 95	594.01	11.91	11.95
13.05 , 2007	20.85	12.17	12.49	28.01	12.17	12.49	0.10	12.17	12.49	0.20	12.17	12.49	49.16	12.17	12.49
12.25 , 2008	5.87	12.22	12.23	56.40	12 22	12.23	71.44	12.22	12 23	281 67	12.22	12.23	415.39	12.22	12.23
12.60 , 2018	450.96	12.59	12.60	19.83	12.59	12.60	-	-	-	1004.00	12.60	12.60	1474.78	12 60	12.60
Sub-total	520.63	12.52	12.54	107.78	12.26	12.36	403.29	11.92	11 91	1558.70	12.41	12.42	2590.40	12.35	12.36
(A+B+C+D)	1896.57	11.71	11.92	2060.62	11.37	11 83	2560.82	11.35	11 62	4789.79	11.70	11.78	11307.81	11.53	11.74
3 REPO	1430.50			1214.00			1530.50			890.50			5065.50		
4 State Govt Securities	26.65	12.17	11.31	17.84	12 10	12.01	80.11	12.24	12 13	26.90	12.14	12.05	151.51	12.20	11.96
Grand total (1 to 4)	3868.75			4274.88			5134.52			6921.30			20199 45		

(-) means no trading YTM = Yield to maturity in percentage per annum CY = Current yield in per cent per annum * Yield rates of these sub-groups of t-bills and dated securities have been used for the graphs. Securities with small-size transactions and inflation linked bonds have been dropped from the above list but included in the respective totals.

Notes: 1) Yields are weighted yields, weighted by the amounts of each transaction.

2) Current yield has not been worked out for treasury bills.

In the private corporate sector, Tata Industries is a new entrant. This innovatively structured seven-year bond is optionally convertible in the sense that the investors have an option to covert the bonds into shares of Tata Teleservices after three years, and thereafter, after every three months. Deepak Fertilisers continued from previous month with its five-year NCD in the private placement.

Insofar as the closures are concerned, most of the issues were quite successful in meeting their targeted amount. Responses to bank issues in particular were overwhelming. Next month is to witness issues from NABARD (Rs 100 crore); Bank of Baroda (Rs 400+200 crore); Global Trust Bank (Rs 75 crore) and ICICI (Rs 300 + 300 crore). Also in the offing are issues from 12 state financial corporations (Rs 423 crore, collectively). All these bonds are going to be of 10-year tenure carrying 12.5 per cent rate of coupon payable half-yearly. None of the bonds has put/call option. The RBI has accorded SLR securities status to these guaranteed bonds issues. International Finance Corporation (IFC), a member of the World Bank group, is also in the waiting list to come out with 'rupee bonds' issue in the Indian domestic debt market. Though difficult to get since this kind of issue is not permissible under the present rules, approval to this effect from RBI, Ministry of Finance and the other regulatory authorities is awaited; if nevertheless granted, it would be the first of its kind in the country.

Securitisation

Jindal Vijaynagar Steel entered into a securitisation agreement with a European company for Rs 163 crore. It was also reported that SBI Caps has decided to float special purpose vehicles for securitisation of receivables from petrochemicals, power and telecom companies and housing rentals by the beginning of the next financial year. The RBI had asked ICICI to frame guidelines for securitisation of receivables to boost infrastructure financing. Meanwhile, Air India received a letter of comfort from the Union Ministry of Civil Aviation in order to help the airline securitise its future receivables on tickets worth $ 200 million.

Ratings Dilemma

In a surprise and debatable announcement, CRISIL has decided not to make public any longer the ratings issued for private placements of debt which is done at the instance of the issuer and investors. This has been done on the consideration that such ratings are extra-regulatory ratings; these are not mandated by the law and are only issued to give investors in these private placements an understanding of the credit risks. This statement has sparked a fresh round of debates on the 'accepted' versus 'unaccepted' ratings. 'Accepted ratings' are those that are issued by a credit ratings agency and accepted for use by the issuer concerned, while 'unaccepted' ratings are those that are issued by a rating agency but are not accepted for use by an issuer. Normally, all accepted ratings are made public while unaccepted ratings are never disclosed.

IV
Secondary Market

Dated Securities

In the initial part of the month, the sentiments in the government securities market were determined by the aggressive open market operations (OMOs) of the RBI. As upward revision was effected in the OMOs' price list, prices of dated securities moved up by 7-8 paise at the shorter end. In the subsequent weeks, liquidity shortage affected the government securities market. The outright transactions thus steadily declined (Appendix Table). The weighted YTM, which fell from 11.36 per cent to 11.24 per cent in the second week, picked up to 11.32 per cent and further to 11.41 per cent in the subsequent two weeks as the prices became subdued. As a result of the impending central budget and monetary policy changes, the focus of the market was on the shorter end and hence, the yield curve became relatively flat, particularly in the second half of the month (Graphs D and E).

Open Market Operations

Due to a general shortage of short-term liquidity, the RBI's OMOs during February (Rs 2,590 crore) were not as successful as those of January (Rs 5,092 crore). Even so, overall, the RBI has succeeded in unloading a substantial amount (Rs 26,000 crore) out of its load of government paper. This has been done by progressively raising the yields offered: thus the weighted average of yields during February for the OMOs securities was 12.35 per cent against 11.45 per cent in January. The OMOs were once again active on the budget day when the finance minister indicated towards an interest rate cut. The RBI used the OMO price list to step up yields furher after the interest rate cuts were announced on March 1 by placing long-dated securities (2010 and 2013) on its sale list at prices lower than those in the market. The response to RBI's fixed-yield repos continued to be lukewarm as the call rates remained firm (Table 8); so were to the repos outside the RBI (Table 9).

Bonds and Other Instruments

The secondary market transactions in PSU bonds and CPs in the month were considerably less than the normal (Table 10).

Table 10: Operations of National Stock Exchange (NSE) during February 1999 – Actual Traded Amount

(Rupees crore)

Descriptors	Week-ending February				Total during		
	26	19	12	5	Feb 99	Jan 99	Dec 98
1 Treasury Bills	70.00	141.20	347.00	257.88	816.08	1063.93	958.72
i) 14-day Bills	–	2.00	–	–	2.00	48.89	73.40
ii) 91-day Bills	50.00	50.43	74.00	73.69	248.11	258.25	683.38
iii) 364-day Bills	20.00	88.77	268.00	184.20	560.97	756.79	201.94
iv) Repo	–	–	5.00	–	5.00	–	–
2 Dated Securities	1435.72	1014.47	1301.81	1582.68	5334.68	8867.38	5506.48
A GOI Securities	1430.30	976.92	1244.30	1563.77	5215.29	8804.83	5439.22
i) Converted	387.25	187.92	288.30	10.77	874.24	1377.15	1441.72
ii) Regular	900.00	621.00	836.00	1314.00	3671.00	6037.00	3058.00
iii) Zero Coupon	41.00	133.00	120.00	204.00	498.00	1022.51	723.50
iv) Cap Indexed Bonds	0.05	25.00	–	–	25.05	15.17	20.00
v) GCB	–	–	–	–	–	–	–
vi) Repo	102.00	10.00	–	35.00	147.00	353.00	196.00
B State Govts Stocks	5.42	37.55	57.51	18.91	119.39	62.55	67.26
3 PSU Bonds	20.45	57.29	46.61	41.15	165.50	189.90	255.09
i) Tax free	11.40	18.00	45.00	35.00	109.40	67.23	210.72
ii) Taxable	9.05	39.29	1.61	6.15	56.10	122.67	44.37
4 Commercial Papers	24.00	69.00	126.00	83.00	302.00	314.00	477.00
5 Certificates of Deposits	–	–	–	–	–	–	55.00
6 Debentures	3.53	42.50	0.45	21.20	67.68	63.76	76.72
7 Floating Rate Bonds	–	10.00	30.00	45.00	85.00	337.00	9.90
8 Others*	45.03	46.40	73.06	276.65	441.14	205.38	364.61
Grand Total (volume)	1598.73	1380.86	1924.93	2307.56	7212.08	11041.35	7703.52
Average per day							
a Government Paper (1+2)	250.95	192.61	274.80	306.76	256.28	354.69	281.10
b Others (3+4+5+6+7+8)	15.50	37.53	46.02	77.83	44.22	39.64	53.84

– No trading. GCB Government Compensation Bonds. * includes Non-SLR Institutional Bonds, SLR Institutional Bonds, Bank Bonds, Promissory Notes, Units of UTI, Company Notes and Zero Coupon PSU Bonds and others.

[Statistical compilations for this note have been provided by V P Prasanth, Rafiq L Ansari and Nandini Sengupta.]

Enron Revisited

Madhav Godbole

With the commissioning of the first phase of the Enron power project in Maharashtra shortly, several issues critical to the management of the power system in the state will now have to be grappled with to ensure that the state electricity board's financial viability is not further undermined. What is specially significant is that these issues have to be faced in the changed context of the share of power generations by independent power producers going up very substantially in the coming years.

WITH the commissioning of the first phase of the highly controversial Enron power project in Maharashtra shortly, one chapter of the epic struggle against this project will be over but the other, more challenging one, is about to begin. Several issues which have been agitating the minds of objective observers and the general public will now have to be grappled with in managing the power system in the state. This is all the more relevant keeping in view the fact that the share of power generation by independent power producers (IPPs) is due to go up substantially in the coming years. It is estimated that by 2002, Maharashtra would have a total installed capacity of over 19,000 MW. New projects being set up by IPPs – Enron through Dabhol Power Company (DPC), Reliance Industries and Nippon Dendro Ispat – between them would account for 57 per cent of the capacity addition, the balance being added by the Maharashtra State Electricity Board (MSEB) (36 per cent) and the central pool (7 per cent). It is therefore, appropriate that the issues arising from this changed context are discussed at some length to ensure that MSEB's financial viability is not undermined further.

At the outset, a note must be taken of the significant events which have unfolded more or less simultaneously with the impending commissioning of this large base-load power project. First, the Congress Party, which by all indications is poised to come back to power at the next elections scheduled to be held in February 2000, has announced that it will review – and possibly slash – the rate at which the state electricity board purchases power from Enron's Dabhol plant. Second, the state government has reduced the per horse-power tariff for agricultural sector substantially in defference to the wishes of Shiv Sena chief Bal Thackeray. This has imposed an annual burden of Rs 181 crore on MSEB. The state chief minister has announced, "This is the first phase. In the second phase, we are considering providing free power to the farmers"! Third, even with the concessional agricultural tariff which prevailed in the state, the arrears from agricultural consumers have gone up to Rs 850 crore. The state government has announced that agricultural consumers who pay 50 per cent of their arrears before May 31, 1999 would be exempted from paying the rest of the amount. Fourth, the state government has categorically announced that the electricity supply to farmers will not be disconnected even if they do not pay electricity dues. Fifth, the arrears of electricity charges from local self-government institutions such as gram panchayats, municipalities and municipal corporations total over Rs 500 crore. The state government has announced that if these bodies pay 10 per cent of the arrears, their power supply will not be disconnected by MSEB. Sixth, in a writ petition filed by the Thane-Belapur Industries' Association against steep increase in industrial tariff, when large concessions are being given to certain other categories of consumers, the Bombay High Court has, in an interim order, directed the state government this month to set up a state electricity regulatory commission expeditiously and to refer the tariff increase for industrial consumers to it. However, if such a commission is not set up, MSEB has been directed to apply to the court if any further increase is to be effected in tariff. Unfortunately, this order applies only when tariff for any category of consumers is to be increased and not if any concessions are to be given to the consumers!

Among the various main doubts raised about the Enron project was the reservation whether the state was in need of such a large addition of capacity to its base load power generation. These objections were considered unfounded by MSEB and the state government. Even the centre, which was backing this project strongly throughout the negotiations, had overruled this objection. Recent reports show how valid were the fears expressed by the so-called detractors of this project, including this author. Union power minister P R Kumaramangalam has admitted that, "States like Maharashtra are now looking for buyers to contract out the expensive [Enron] power they are burdened with". Hinting at high cost power like that of Enron, he said that, in many cases, paying the penalty of fixed charges will be cheaper than paying for the expensive power. The minister further said that these states (like Maharashtra) which had taken upon themselves an obligation to provide off-take of power generated by projects like Enron, may find it difficult to get takers for expensive power. Even power deficit states like Uttar Pradesh, Delhi, etc, are now realising the emerging trends and are expected to wait for better deals. In fact, some of the SEBs have drawn up interim plans for the transition period where they are planning to improve the efficiency of the existing plants to meet the short-term shortfall. This is all the more disconcerting in the face of the claims of the union power minister that power tariffs of new mega power projects are set to come down by as much as 50 per cent (*The Economic Times*, January 5 and 8, 1999).

It is unfortunate that all those who were involved in the clearance of Enron project did not pay adequate attention to the fact that Koyna hydro-electric power project phase IV for peaking power generation of 1,000 MW is scheduled to be commissioned in the middle of 1999, more or less simultaneously with the Enron project. Several small hydro-electric projects are expected to add a total of another 90 MW of peaking support. This will more than wipe out the peaking power shortage in the state.

The industrial recession has, no doubt, been partly responsible for reduced rate of growth of demand for power in the state. But this does not explain fully the excess availability of power with the two private sector power distributors in Mumbai. There is already 400 MW surplus power with the Tata Electric Company (TEC). According to some news

reports, Tatas are expanding their distribution network by offering power supply to the erstwhile consumers of Bombay Suburban Electric Supply (BSES). The fight over consumers and lower power tariff has now been taken to the state government for arbitration. Some may consider this a cause for rejoicing but permitting large capital assets to be kept idle due to excess capacity is a luxury which a capital poor country such as India can hardly afford.

Backing down in MSEB's power stations which supply power at a cheaper cost will be the inevitable result of committing guaranteed offtake of power from IPPs at unduly high plant load factor (PLF). It is unfortunate that its full implications for the finances of MSEB are still not appreciated fully by the board. This is evident from the comments of the chairman of the board as brought out in the article entitled 'Enron India and a Problem of Plenty' (*Business World*, December 22, 1998, January 6, 1999). It is difficult to subscribe to the statement of the chairman of MSEB that "backing down our own plants will be cheaper".

MSEB's overall financial position is highly precarious due to large subsidies in power tariff for agricultural consumers as also domestic users and local self-government institutions. The loss in revenue is partly made up by higher tariff to industrial consumers. In such a situation, it is hardly appropriate for MSEB to permit captive power generation as it implies foregoing large revenue. Against this background, it is difficult to understand how MSEB and the state government has permitted captive power generation capacity of 164 MW to be set up in the state by Reliance (48 MW), Larsen and Toubro (46 MW), Lloyds Steel (30 MW), and Indo Rama Synthetics (40 MW). Inexplicably, the state government has also permitted the Reliance Industries to supply power to two major industrial units in Thane-Belapur area directly from its proposed Patalganga power generation project, instead of selling all the power to the state grid. This is likely to lead to an annual loss in revenue of Rs 100 crore for MSEB.

In the same vein was the decision of the state government to give further concessions to Reliance Industries for its Patalganga project a few months ago by relaxing the earlier power purchase agreement. The levellised tariff for purchase of power by MSEB is reported to have been increased from Rs 1.41 per unit to Rs 1.48 per unit. Cover against exchange rate fluctuations has also been enlarged.

A reference may also be made to the observations of the Comptroller and Auditor General (C and AG) contained in his audit report on government of Maharashtra (No 2, commercial) for the year ended March 31, 1997. It states, "The PPA [power purchase agreement] with RPPPL [Reliance Industries] was entered into in August 1996 for setting up a gas based plant with a capacity of 410 MW at Patalganga. The location of the power plant was changed from Nagothane to Patalganga, after award of project. Though reduced completion period of 24 months as against 36 months initially quoted was one of the reasons accorded for change in location, corresponding reduction in interest during construction (forming part of project cost) was not given resulting in undue benefit of Rs 20.90 crore per annum to RPPPL in the form of higher capacity charges" (p xi). Obviously, no lessons have been learnt from the monumental mistakes made in approving Enron project. MSEB and the state government continue to be as lax as ever in protecting the interest of the state and its electricity consumers.

There seems to be no long-term perspective in the state government regarding the restructuring of the power sector. Its actions and pronouncements so far are ad hoc and arbitrary. Over a year ago, the state government announced its intention to set up a state electricity regulatory commission but there has been no further progress. The comprehensive recommendations made by the Rajadhyaksha Committee in December 1996 on restructuring the sector are gathering dust. Instead of looking at privatisation of distribution in the state as a whole, MSEB and the state government seem to be toying with the idea of privatising distribution selectively. Accordingly, MSEB has commissioned a study for privatisation of distribution in New Mumbai. Needless to say, any such piecemeal action will mean MSEB forgoing profitable areas of distribution and remaining saddled with loss-making rural and semi-urban areas of the state.

The Enron imbroglio will be remembered for a long time for the futility of public interest litigation (PIL) which has otherwise been such a powerful tool for redressal of public grievances and checkmating the excess and arbitrary actions of the executive. Inexplicably, the high court, while dismissing the first PIL at the admission stage itself, came to the conclusion that, "We do not find any material or evidence to substantiate the contention of the petitioners that the contract in question is arbitrary or illegal or against public interest. On the contrary, all the facts and circumstances indicate the contrary... The grievance of the petitioners is based on the sole ground of the failure to follow the usual procedure of inviting tenders, which as stated by us earlier, is not an invariable rule. In our opinion, in the present case, it may not be an appropriate mode. Negotiation was the only appropriate mode which has been done in the most reasonable manner. The decision has been arrived at after long deliberations and discussions and consideration of all relevant factors" (AIR 1995 Bombay 235). It is unfortunately true that each of these observations can be contested on very valid grounds.

When the matter was agitated in the same court through two PILs in 1996, the court refused to intervene by citing the rule of *res judicata* and observing that it is not a technical rule but it is a rule of public policy (AIR 1997, Vol 84). Some of the observations of the court are, however, worth recalling. The court,*inter alia*, stated, "But once it [Shiv Sena-BJP coalition government] decided to revive the project, it acted in the very same manner as its predecessor in office had done. It forgot all about competitive bidding and transparency. The only transparency it claims is the constitution of the negotiating group. The speed with which the negotiating group studied the project, made a proposal for renegotiation which was accepted by Dabhol, and submitted its report is unprecedented. The negotiating group was constituted by the Government of Maharashtra on 8th November 1995. It was asked to submit its report to the state government on 7th December 1995. The committee, we are told, examined the project, collected data on various similar other projects as well as internal bids including data on a similar project executed by Enron in the United Kingdom, held considerable negotiations, settled the terms of revival of the project, got the consent of Enron and Dabhol to the same on 15th November 1995, just within a week of its constitution, and submitted its exhaustive report along with data and details to the Government of Maharashtra on 9th November 1995, just 11 days after its formation, much before 7th December 1995 by which date it was required to submit the same. The speed at which the whole thing was done by the negotiating group is unprecedented. What would stop some one to say, as was said by the chief minister in the context of the original power purchase agreement, 'Enron revisited, Enron saw and Enron conquered' – much more than what it did earlier" (p 107).

Everything about this project has been unprecedented. It was not therefore surprising that the negotiating group, which comprised experts, failed to go into a number of major issues pertaining to the project which were agitating the public mind. One of these, for example, pertained to the guaranteed offtake of power by MSEB by permitting the project to operate at a very high PLF. It was repeatedly urged in the public criticism that this will imply MSEB backing down its own low cost power stations. It was unfortunate that this was not gone into by the negotiating group with reference to any load flow studies. In any case, such studies do not form part of the report of the negotiating group. *The Summary Report of the Negotiating Group on Dabhol Power Company*, which was released for public information, merely states that "with a view to assess the load situation in the state, both present and future, the committee relied on actual load study available from MSEB which is attached *vide* Annexure X" (p 12). However, what is contained in Annexure X is daily system report for October 31, 1995, system status during peak periods and night off peak periods for the same date, planned and emergency outages on units and trippings, generation overview, etc, again for a particular date. On page 13 of its report, the negotiating group has made yet another cryptic observation that, "in addition, the committee also conducted a study on optimum operating cost minimising load factors from various generating stations in the state and are satisfied that the proposed load factor is justified". It is surprising that the negotiating group did not consider it fit to provide any data in its report to support its observation on such an important issue which will have a vital bearing on MSEB's financial health in the coming years. Obviously, the committee's conclusions on this point were erroneous.

The implications of the perceptible increase in the pooled cost of generation of MSEB after Enron power is received in the grid were not gone into by the negotiating group at all. The discussion in the report in terms of levellised tariff rather than the estimated yearwise tariff of Enron (based on some clearly spelt out assumptions) failed to bring out the seriousness of the problem. It is necessary to underline that what matters for policy decisions is the actual tariff at which power will have to be purchased by MSEB from Enron from month to month. For example, according to the C and AG report referred to earlier, "the expected cost of power from DPC [Enron] and RPPPL that would be available for sale by MSEB is Rs 4.69/KWh and Rs 3.71/KWh respectively, in March 2001 as against expected average realisation of only Rs 2.40/KWh based on average realisation in 1995-96 and cumulative average rate of growth of 8 per cent over five years". As it appears now, the state government will be unwilling, or may find it difficult, to revise the tariffs payable by consumers adequately to compensate MSEB for the high cost power of Enron and other private power projects which are due to go on stream in the next two years. In the light of the high court judgment referred to earlier, the state government will have to either approach the state electricity regulatory commission, if it is established by the state government, or it will have to approach the high court for giving effect to the tariff increase.

A reference may be made in this context to the provisions of the Electricity Regulatory Commissions Act, 1998, which provides that in the discharge of its functions, the central commission shall be guided by such directions in matters of policy involving public interest as the central government may give to it in writing. If any question arises as to whether any such direction relates to a matter of policy involving public interest, the decision of the central government thereon shall be final. Similar powers have been given to the state governments in respect of the state electricity regulatory commissions. These are wide and sweeping provisions and could be easily invoked to nullify any actions of the regulatory authority. This is amply evident from the recent decision of the central government to keep in abeyance the telephone tariff notified by the telecom regulatory authority of India (TRAI). If the stand of the central government in respect of the powers of the TRAI in regard to the revision of telephone tariffs is any guide, it is doubtful whether such regulatory authorities, whether at the state or central level, will have any freedom to fix reasonable tariffs from time to time. In fact, the very purpose of setting up such regulatory authorities for various sectors is likely to be frustrated by the centre's stand in respect of TRAI.

An independent comprehensive post evaluation of the highly questionable decisions to award 'fast track' power projects to IPPs and subsequent decisions of government of Maharashtra to impoverish MSEB will put the issues in proper perspective and provide useful guideposts for the future.

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Akalis' Secular Turn

A S Narang

The Akali Dal tradition has been that whenever it is out of power, all factions join hands and speak a belligerent language; and when it is in power there is a power struggle in the party. The present feud between Parkash Singh Badal and Gurcharan Singh Tohra can be seen both as a continuation of this Akali tradition and something different in the present context of Punjab and Indian politics.

SINCE the reorganisation of the state in 1966, the Shiromani Akali Dal (SAD) is in power for the fifth time in Punjab now. It has been in power by itself or in coalition with other parties. Every time it has come to power, factionalism in the party has come in the open within one year and culminated in the division of the party. The present feud between Parkash Singh Badal and Gurcharan Singh Tohra can be seen both as a continuation of this Akali tradition and something different in the present context of Punjab and Indian politics. One major difference this time is that there is no immediate threat to the Badal government. This is partly due to the brute majority of the Akali Dal in the assembly in which defection of even 20 plus members is covered by the anti-defection law. There is also a change in the power alignments within SAD.

No doubt there has been an overall decay of the democratic system in the country. This decay has been marked by personality based politics, corruption and cynical manipulation of issues and people. Punjab is no exception to that. Here, also, different parties, groups and individuals scramble for power, unmindful of sound political values or social concerns. However, in view of the peculiar demographic situation of Punjab, the popularity of the mythical doctrine of amalgamation of religion and politics in the Sikh faith and the experience of militancy during the 1980s, the present nature of Akali factionalism can be interpreted in different ways and its effects on the future of Punjab can be predicted accordingly.

A reference to the historical and social context can help in the better understanding of the situation. In its origin, the SAD was the product not of politics of the state but of the church embodied in Sikh gurudwaras. It was formed in December 1920 as a co-ordinating agency to raise and train volunteers for action in what is known as the Gurudwara Reform Movement to take gurudwaras out of the control of the 'mahants' (priests) who were managing them as their personal property in the most corrupt manner. Right from the early days of its inception, SAD was facing internal differences with regard to modes and strategies of agitation, its ideology and leadership. Some saw it purely as a religious movement to reform the gurudwara management, others looked upon it as a part of the larger movement for the freedom of the country. Yet others linked it with the revolt of the peasantry.

On the whole, in the given situation, the Gurudwara Reform Movement, which got statutory recognition for the Shiromani Gurudwara Prabandhak Committee (SGPC), not only succeeded in freeing the gurudwaras but also played an important political role in the institutionalisation of Sikh politics. The SGPC and the Akali Dal ultimately emerged as the primary institutional expressions of the communal and political consciousness and the identity of the Sikhs.

In conceptual terms, the SGPC can be described as a political system or organisation which looks into a range of Sikh affairs. It deals with the different Sikh sects and the Punjab government. It also has huge assets. Control over the SGPC provides control of the material and symbolic assets of this organisation. Elections to the SGPC are conducted by the state and anybody or any party can contest them. The Akali Dal, on the basis of its historical role, has been gaining control over th SGPC by articulating or even over-articulating the traditional ethnic political aspirations of the Sikh community. The Akali Dal has been presenting itself as the only representative body of the Panth.

As the proclaimed sole spokesman of the Panth, the Akali Dal has been suggesting that Sikhism, unlike most other religions, is not merely a way of worship but also a social system. As soon as the Sikh people are deprived of political power, Sikhism becomes distant from its elan and ethos. This move toward political power, however, brings out class, caste, family, economic, secular and political differences. Sikhs, as any other community, are not a homogeneous community. There is a division between rural Jat Sikhs and urban Khatri-Arora Sikhs leading to the clash of interests between farmers and traders as also between urban and rural social values. Among the rural Sikhs, there is a sharp division between Jat farmers and scheduled caste landless or small kisans. Here class-caste differences coincide.

Till early 1960s, SAD was under the leadership of urban Sikhs. Although the rural Sikh farmers supported SAD for SGPC elections, they generally supported the Congress for the legislative assembly elections. Later, due to the change in Congress policies, the Jat Sikhs, like other farmers of north India in general, started moving away from the Congress. They took over the Akali Dal after a formal division between the Master Tara Singh and Sant Fateh Singh factions. Since then, SAD has primarily been representing the farmers' interests as far as legislative politics is concerned. However, within farmers, class differences on the basis of old family feuds, personal ambitions, big, small and middle farmers do exist. In this situation, both individual and factional leaders attempt to capitalise on Sikh doctrine in which subordination of the individual will to the collective will is complete. The general will here exists as a real will and not merely as metaphysical fiction as a result of the belief that the Guru is present in the Khalsa (community) and the opinion of the community is the will of the Guru. It is from this doctrine that the concepts of Sarbat Khalsa (assembly of the whole community) and Hukumnamas (edicts of the Akal Takht which has members nominated by the SGPC) have been derived.

Until the beginning of the 1980s, all these tactics were used moderately and polemically as, in spite of the religious orthodoxy, economic and social differences among the Sikhs have been real. For the Jat Sikhs particularly, the association with religion has been more in sociological than metaphysical terms. Their behaviour is governed more by the instinct of tribal freedom and tribal kinship than other worldly concerns for heaven or hell. In view of this, the Akalis had

started moving towards moderation and secularism. During the Emergency and in the post-Emergency elections, the co-operation between the rural-oriented Akali Dal and the urban-based Janata Party was quite impressive. Tohra occasionally spoke in a controversial language, but Badal was able to establish the party's secular credentials significantly as the chief minister.

Soon after the 1972 elections, the Congress, however, started to play the game of one-upmanship *vis-a-vis* the Akalis in the use of religion. One reason for this was that the Congress chief minister, Giani Zail Singh was not a Jat. For his survival, he projected himself as the promoter of Sikh religion. At the same time, by now Indira Gandhi's Congress had started using the politics of communalism. In Punjab, apart from appealing to Sikh sentiments, it also began to exploit factional conflicts among some Sikh sects and the Akali role in these. One sect that came handy to the Congress was the Damdami Taksal headed by Sant Jarnail Singh Bhindranwale.

Pressures on the Akalis were mounting from other sides also and these were causing differences between the ecclesiastical-organisational axis and the legislative wing of the Akali Dal. At the time of the 1979 SGPC elections, it looked for a moment that the MLAs led by Badal and the followers of Tohra and Talwandi would fight to the finish. By encouraging organisations like Dal Khalsa and Bhindranwale, the Congress not only started creating an alternative centre of power in Akali politics but also sharpened the factionalism in the Akali Dal. To become the spokesmen of the Sikh community, leaders and factions started blowing up Sikh grievances in a belligerent language. Indira Gandhi obviously allowed the situation to drift and take a serious turn.

Caught in a cleft-stick and facing a two-pronged attack, the moderates in the Akali Dal became irrelevant. To justify their acts of omission and commission, the supporters of the government, the militants and the Akalis reinvented the institutions of Sarbat Khalsa and Hukumnamas as well as the political role of the head priest (Jathedar) of the Akal Takht from the Sikh traditions according to their own conveniences. The price that the country, the state and the Sikhs paid for this politics of opportunism is well known by now. After the 1984 events, the Sikh masses looked upon the Akal Takht as a symbol of their identity. Within Akali factions, the control over the Akal Takht became important.

After the decline of militancy and the restoration of the democratic process, a large section of the Akali Dal began to realise the futility and dangers of confrontation for the sake of confrontation. They were worried that the extremists could take charge of the Akali Dal and isolate them besides inviting ruthless repression by the state. Moderate Akali reassertion received mass support. The Akali Dal, however, always remained in a dilemma. The line which separates religion from politics is blurred and the Akali Dal cannot easily give up its religious appeal. The gurudwara-based Jathedars have to play a role. On the other hand, the demographic structure of the state is such that it is difficult for the Akali Dal to form the government by itself without support from significant sections of Hindus. It is in this context that there is always a conflict between the ecclesiastical-organisational axis and the ruling political group.

Traditionally, in Akali politics there have been three power centres revolving around the party president, the SGPC president and the leader of the legislative wing who becomes the chief minister whenever Akalis form the government. Since 1985, after the assassination of Sant Harchand Singh Longowal, the same person has been the leader of the legislative wing and the party president. Earlier it was Surjit Singh Barnala and now it is Badal. This is another cause of dissatisfaction in a section of the party. Tohra, who is known for his political manoeuvring capabilities and has always remained with the mainstream Akali Dal in spite of his somewhat extreme views, thought that he could articulate the dissatisfaction in some organised manner. Badal, confident of his position in the assembly and the support of the BJP, decided to consolidate his position in the SGPC also. In spite of the reconciliatory efforts made by some Akali leaders and Tohra himself, he not only got Tohra ousted as the SGPC president in a humiliating way but got a person completely of his choice elected in his place.

The election of Bibi Jagir Kaur as the first woman president of the SGPC seems to be a well calculated move. It will not be too easy for Tohra and his supports to oppose a woman. At the same time, Jagir Kaur, a minister till yesterday, will in all probability be a proxy president. It is significant that at the election meeting on March 16, Akali leader K S Badungar opened an envelope which contained Badal's message to the members giving the names of those he wanted elected to the respective posts. The message was faithfully accepted.

There are both negative and positive aspects of this development. Moderation is regaining support in the Akali Dal. The clergy's overindulgence in politics is being questioned. Here, it may be mentioned that Jathedar Ranjit Singh, the recently suspended chief priest of the Akal Takht, in his short tenure in the last few years, issued more Hukamnamas than proclaimed in the last 50 years or so. People like Tohra, who keep on harping on concepts such as that Sikhs are a separate nation, stand isolated. Already other such leaders, like Simranjit Singh Mann, have been marginalised.

How genuine and honest is this effort? The past history of the Akali Dal, including Badal's own behaviour, is not promising. In 1969, when the moderate Justice Gurnam Singh was leading the Akali-Jan Sangh coalition government, Badal led the revolt against him in somewhat emotional religious language. Again when in 1985 Barnala became the chief minister, Badal not only criticised the Rajiv-Longowal accord but also warned Barnala on the issue of sending police to gurudwaras. The Akali Dal position has been that whenever it is out of power, all factions join hands and speak a belligerent language. When it is in power, there is a power struggle within the party. Reports of Badal monopolising all power for himself and his family members are quite credible. Tohra's allegation that Badal is grooming his son to succeed him is not without basis. People in Punjab are talking about widespread political corruption in the administration. The names of family members of Badal are openly mentioned in this regard. Badal's son, who is new in politics, has got a place in the central ministry. Badal, in spite of his career-long opposition to the retention of Article 356 in the Constitution, supported its proclamation in Bihar.

There are apprehensions that, as in the past, this internal factionalism of Akalis will bring militancy and violence back. But, as mentioned above, Punjab society is unlikely to approve of that. Much will also depend on the role that other parties and groups like the Congress play in their own political interests. The media and Sikh intellectuals can use this situation to get the Sikh masses out of the control of Jathedars and gurudwara-based politics.

Derailing the Railways Further

S Sriraman

A reading of the railway budget, 1999-2000 reveals that the ministry has failed to evolve a coherent and effective strategy for capacity enhancement and technological upgradation so that the railways can play a relevant role in the next century in the country's development.

THE Status paper on Indian railways (GOI 1998a) brought out by the ministry of railways last year had raised hopes of significant measures to put the organisation back on the rails in order that it may support the high growth path that has been envisaged under a liberalised economic framework. It was thought that railways would be radically reorganised and that public authorities responsible for the rail sector would play a highly active role in that process. Serious attempts made by the minister himself and his officials to build up a consensus on the need to evolve an effective strategy that would involve massive investments in capacity enhancement and technological upgradation of the railways have apparently failed as is revealed by a reading of railway budget for 1999-2000 presented to parliament last month. When read together with the recently released Ninth Plan document which, in a rather limited way, seeks to provide a sort of a blueprint for survival and even growth of the railways in the next millennium, the feeling is one of utter disappointment.

The objective of the Ninth Plan as far as the railways is concerned "would be on strengthening the capacity of the Indian railway system as the prime carrier of long distance bulk freight and passenger traffic. To this end, the railways will concentrate on multiplexing and electrification of dense corridors, improvement in reliability of operations, containerisation of smalls and optimisation of total system operations." The budget, which could have served as a springboard to operationalise a strategy to launch the network into a high growth trajectory and become part of the renaissance of the rail industry globally, attempts precious little.

A dynamic tariff policy is a necessary precondition for successful growth of even a public service organisation like the railways. However, tinkering with passenger and freight tariffs in an arbitrary way has been a characteristic feature of tariff fixation in the Indian railways. This has happened despite recommendations of several expert committees [GOI 1980, 1993] who have opposed this policy since such a policy upsets the rate structure which is normally expected to be based on certain perspectives reflecting relative costs, class rates, traffic leads and socio-economic importance of different commodities. The minister has proposed a 4 per cent across-the-board increase in freight tariff at all distance except up to 50 km in which case a 25 per cent concession has been offered. This concession is sought to be justified on the ground of weaning away short-haul traffic from road transport. Again, in this context, while the move to introduce new long-distance trains may possibly be welcomed, the introduction of new short-distance intercity trains is a retrograde step especially in view of the effective road transport connections available between these points. Such efforts severely undermine the evolution towards an optimal modal mix.

In the case of passenger fares, a rationalisation to take into account differences in the levels of comfort as between sleeping and sitting accommodation as also the superior comfort of travel in airconditioned classes has been proposed. As a result, fares will be varying between 1.55 times the basic second class fare for the sleeper class to 14.4 times the basic fare for AC 1st class. While implicit in this scheme of things is consideration of cost factors, more explicit are demand considerations which have, historically, served as the basis for the value of the service pricing principle adopted by many systems all over the world. On the Indian railways, passenger traffic is traditionally classified as suburban and non-suburban. For historical reasons, what is called suburban traffic is concentrated mainly in the metropolitan cities. The non-suburban traffic is carried by four types of passenger trains: (i) ordinary trains, (ii) mail and express trains, (iii) superfast trains, and (iv) special categories of trains called Rajdhani and Shatabdi trains. The classification of intercity trains into these four categories plays an important role in fixing the level and structure of long distance fares on Indian railways since differentiation in train categories is based upon the quality of service factors, the main items of which are journey time, departure and arrival timings, number of halts, the type of seating or bedding supplied, the position of dining car or pantry car and other amenities. Thus, these factors form a logical basis for charging differential fares even for travelling similar distances. In other words, variation in fares while it is reflected in the variation in costs of service provision, it is more so due to a consideration of affordability of the users to pay different fare levels. However, it does appear that a stage seems to have been reached where not much leverage is possible at the higher end of the spectrum of fares since diversion to the road mode is emerging. This is revealed by stagnating upper class flows. It may still be possible to target the long distance second class sleeper segment for additional revenues since growth continues to be buoyant.

In the White Paper on the railways projects (1998b) brought out last year, the ministry had focused on the issue of expansion of the railway network, which was proceeding in terms of a number of financially unviable but, socially desirable projects. It was also reported that many of these were included in past budgets without proper surveys and even without requisite clearance. It was further emphasised that such a process resulted in finance being spread thinly over so many projects on a continuing basis that none could be expected to take off in a reasonable time period. Accordingly, the paper pointed out the need for prioritisation of these projects and their implementation. The current budget does not even attempt to make a beginning in this direction. On the other hand, the list of new projects that have been cleared seems to be getting longer. In a matter of months, projects worth hundreds of crores of rupees have been cleared. Surely, the basis for such clearances could have been provided. This would have been in line with the present thinking that transparency is essential in planning and implementation of public schemes.

More importantly, the White Paper had stressed the need for a substantial hike in budgetary support to take care of financially unviable projects. In this context, it is perhaps useful to emphasise the role of the railways in meeting public service obligations. The social obligations in the Indian railways were estimated to be of the order of Rs 3,000 crore in 1998-99. A good part of this obligation is a result of loss on passenger traffic, which is being cross-subsidised by freight traffic. During the period 1980-1995, the cost of social burdens has ranged between 13 per cent

to 20 per cent of gross traffic receipts. The Railway Fare and Freight Committee [GOI 1993] had pointed out that if the railways was simply relieved of this social burden, they would not have to depend on budgetary support to fianance outlays. Alternatively, it was argued that the level of rail tariffs especially freight would have been lower, even after payment of dividend liabilities, if this burden was taken off the railways' shoulders. It is well recognised that the scale of public obligations imposed by the government service without any real or full compensation for the financial impact of such obligations has damaged operating revenue and reduced the investment capacity of railways. Further, the government has not behaved as a responsible shareholder and is forcing the railways to borrow from financial market at high rate of interest. According to the budget, railways would be extending market borrowings to include long-term loans with a maturity of 15 years. In 1998-99, the railways had tapped this segment for the first time to supplement borrowings through bonds. The issue that is raised here is the failure to distinguish between tasks imposed on the railways and indebtedness that is resulting from the imposition of such tasks. It is perhaps ripe for a serious consideration of the issue of providing explicit subsidies to the railways while at the same time freeing the general exchequer from provision of capital grants, which are arbitrary and are a great source of uncertainty to railway planners and policy-makers.

The proposal to create a fund for converting unmanned level crossings to manned ones is a welcome step. The status paper had mentioned the possibility of a levy on road vehicles to serve as a source for the fund. With additional levies on freight and vehicles being earmarked for the purpose of recently National Highway Development plan, such a possibility is ruled out. The budget does not make an explicit commitment but spells out the need to tap member of parliament local area development schemes budgets for these schemes. But it is necessary to target their conversions within a specified time framework and also involve state and local governments in such ventures. The absence of co-ordination at the ground level has really hindered implementation of such action plans in the past.

The important role of a local authority in managing local services especially in urban areas has been highlighted by a number of studies. Accordingly, the formation of the Mumbai Vikas Rail Corporation was greeted with great enthusiasm. However, it is understood that this organisation is merely to be involved in carrying out the implementation of the various rail projects under the Mumbai Urban Transport Plan-II (merely replacing the existing Metropolitan Transport Project). In other words, its role would not extend to operations. If this is to be the reality, the suburban commuter can only look forward to greater travel discomfort in the years to come, additional facilities under Mumbai Urban Transport Plan-II notwithstanding. Policy decisions would continue to be taken in Delhi where other priorities matter.

What is important at this stage is to properly define the role that the railways will be expected to play in the next century. However, in order to define that role clearly, it must be understood that, with the anticipated increase in traffic flows and to achieve significant reductions in traffic flows in other modes, heavy investments will be required on the railways. However, much Rail Bhavan may acknowledge this emerging need, its action plan fails to reveal such a concern.

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ORISSA

Struggles against Sanctuaries

Debaranjan Sarangai

The state government has proposed several wildlife sanctuaries which will displace thousands of tribals who have lived in these areas for generations. This has generated a large-scale protest movement around the issue.

THE tribals in the state have experienced large-scale displacement due to industrial development as well as big dam projects. At the Similipal sanctuary project inhabitants of four villages have been protesting for over two decades and the government is yet to evacuate them. Now the government is targeting more tribals for several proposed sanctuary projects in the state. The Kotagada sanctuary situated in the tribal dominated Kandhamal district is being opposed by the resident tribals there.

Kandhamala is one of the tribal dominated districts in Orissa. Nearly 53 per cent of the people are tribals. The government of India announced its proposal to set up a sanctuary in the district spreading over three blocks of Kotagada, Tumudibandha and Daringibadi in 1981. Subsequently, notice was issued in December 1981 for hearing objections but was not served. The same procedure was repeated in 1985 when the notice was issued but not served until the Supreme Court direction came in 1996 and the administration kept people ignorant of it. But when the district administration on the same year all of a sudden banned shifting cultivation, cattle grazing and restrictions were imposed on firewood collection in the proposed sanctuary that startled the local inhabitants.

Nearly 32,000 people of these three blocks will be displaced for the proposed sanctuary. This 400 sq km project area would displace people in different phases. Firstly, the peripheral villages, then the core area villages will be evacuated. Finally, the villages coming within outer circle of the sanctuary project will be evacuated according to a district official who wishes to remain anonymous. In the north of the sanctuary lies the Mundigaarha forest block and in the south Laseri (Extension) Bhandri Srirampur forest block, in the east Simalbadi forest area, and in the west Rayagada forest area. People of the area are mainly dependent on shifting cultivation. For years tribals and other caste people like dalits who have a minuscule presence in the areas have been doing shifting cultivation in the forest. A few people have some patta land. People told me that they have been doing it for ages and they do not destroy jungles by shifting cultivation. Had it been so, there would hardly have been a jungle. Generally, they clear a patch of land which is not covered by thick forests. They do not even

cut big trees for the purpose. They cultivate a patch of land for two to three years continuously and leave it for regeneration. It is their way of forest conservation. They produce paddy, millet, black gram, green gram, red gram, turmeric, etc, through shifting cultivation and in patta land.

Besides shifting cultivation, people of the area are dependent on seasonal collection of forest produce. They collect hill broom, tamarind, honey, mahua flower, siali leaf, etc, from the forest. The market for forest produces here is not primary collector friendly. The monopoly rights of state level co-operative societies and their nexus with business people are the reasons behind the distress sale of all forest produce. Primary collectors do not get remunerative price not even the price fixed by the district price fixation committee headed by the district collector. No doubt the local tribals eke out seasonally albeit low return against hard labour.

Owing to a ban on shifting cultivation, the living conditions of a major chunk of the population of the locality has worsened. The tribals can neither go into the forest for collection of firewood nor are the collected forest produce remunerative. The state is pushing away the tribals from all possible source of livelihood. Most of the people have absolutely no source of food except for searching of roots and tubers in deep forests. Occasionally, they get some work in the government-sponsored construction activities and on the land of the few landowning people. Ban on shifting cultivation here is a well-structured plan of forceful displacement by the state.

Interference of the state in the life and livelihood of the indigenous people is opposed by them worldwide. Kondh tribals of the Kotagada range have also initiated their opposition since they heard about the proposed sanctuary. Pahadi Sangrami Mancha under which banner the struggle is being spearheaded was formed in response to the district magistrate's promulgation of the ban. people's protest gained momentum after the announcement of parliamentary election. On the eve of the election people in large numbers gather near Subarnagiri on February 14, 1998 with their traditional weapons with a promise not to cast their vote since they did not expect anything from 'welfare state'. Nearly 32 ballot boxes on the election day came to district headquarter without a ballot paper.

Though the government has restricted the entry of people into the forest and banned shifting cultivation it has leased out the bamboo forest to a private company based in Rayagada. The Mancha prevented the company from its cutting the bamboo. Recently, the Mancha has decided not to co-operate with government agencies and in this form has started opposing the developmental work at the block level. The other day the district collector came for the innauguration of a watershed project financed by the DRDA. But people of the locality gheraoed the collector and restricted his entry into the area. People also protested against the suppression of information by the administration. Finally, the collector agreed to provide a map of the sanctuary and other related information.

Time and again the government is issuing notices for public hearing. People officially came to know about the sanctuary for the first time by notice served on January 9, 1998. Subsequently, two notices have been served for public hearing on April 19 and July 10, 1998, respectively. In the last notice people have been told to bring pattas in support of their land. The Wild Animal Sanctuary Act says that those who have patta land would not be displaced. In tribal society where patta is of no use, people would hardly have pattas to prove their ownership of land. A few people have actually patta land to protecting their rights. The large number of tribals who do not have patta land would definitely be forcibly displaced. This is a ploy to divide people along the issue of patta. People in the region are not allowing revenue officials to conduct surveys to ascertain the number of patta and non-patta holders.

Besides Kotagada sanctuary another sanctuary in the new district of Gajapati has also been constituted by the government and resentment from the tribals under the banner of Lakhari Loka Surakshya Manch is in the offing. People of the Lakhari area where 15,000 tribals of 11 panchayats would be displaced are opposing the sanctuary project tooth and nail. In a congregation of tribals at Luhagudi they took a vow not to leave their land and also to oppose the entry of the local MP and MLAs in that area.

Nine more other sanctuaries are reportedly in the offing. Though chief conservator of forest (wildlife) said that no tribals would be displaced due to 'paucity of funds', notices have been issued in almost every case. There are voice of protest from other areas like Padia sanctuary in Koraput district and Athamallick in Cuttack district. The formation of an alliance of such protests is now under way to challenge state's arbitrary decision.

The debate centres on whether the tribals are responsible for either decrease in animals numbers or depletion of forest or both. Since generations tribals have been staying with animals in the forest; the state is now coming declaring areas as sanctuaries which will displace them as if they were the culprits.

Euro and Emerging Commercial Opportunities

Kalyan Raipuria

The emergence of the euro as Europe's single currency has been the most important single change in the international economy in the last some quarter of a century. Those, both countries and business organisations, who are quick to take advantage of this momentous development will be the 'winners'.

AMONG the many factors which have recently driven business around the world, market liberalisation, development of technology, notably IT, globalisation of industrial and service activities and integration of financial markets are major ones.

A wave of many players studying and operating on these factors has led, on the one hand, to a number of new management prepositions and, on the other, to several examples of proactive business participation around the world. The emergence of new IT applications, like digital, have added a new dimension to the competitive atmosphere. Competitive organisations have come up as 'winners' and have maintained or improved their market position even in the face of certain elements of 'a new global economic disorder' These include the south-east Asian financial turmoil, Russian exchange crisis, recent Latin American developments, the continuing recession in Japan, the second largest economy of the world, the large trade deficit of the US, the near 10 per cent unemployment in Europe and over-capacity in China, besides its losing public sector.

With the dawn of the euro, confined to eleven euro-zone countries, on January 1, the 'winners' will again be those who take advantage of the change over first. The alluring euro as Europe's single currency, having received a bullish reception, has been the biggest change in international finance since the abolition of fixed exchange rates 26 years ago.

The euro-zone countries have a tremendous potential for expansion of markets, particularly in services, given the size of the currency exchange market of the order of \$ 1.5 trillion per day, and bonds and stocks markets of the order of \$ 5.1 and \$ 4.3 trillion, respectively. The market capitalisation stands at \$ 1.8 trillion, while bank assets are as large as \$ 11.13 trillion. The euro-zone constitutes over 16 per cent of world merchandise trade (estimated at \$ 5.3 trillion) as the annual exports and imports of the euro-zone amounted to \$ 861 bn and \$ 760 bn, respectively, in 1997. The zone accounts for 30 per cent of world trade in commercial services (estimated at \$ 1.31 trillion), as exports and imports amounted to \$ 381.4 bn and 372.6 bn respectively in 1997. The substantial surplus in trade as well as balance of payment is indeed one of the main strengths of these countries. The zone's total foreign resources stood at \$ 290 bn at the end of 1998. The likelihood is that the euro will emerge stronger than the US dollar over a period. Thus the euro-zone, besides its large currency and stock markets, is also likely to become the magnet for capital which is what its designers aimed at.

With the euro-zone enlarged by the inclusion of the four remaining EU member countries (Denmark, Greece, Swedan and the UK) and further with the expansion of the EU, the market is likely to be very large and unique, making the world multipoler Whether the expected commercial expansion, with some mergers and acquisitions, takes place sooner or later, the euro-zone will definitely provide virtually one market of about 300 million population and GDP of \$ 16.3 trillion, the tapping of which would require very efficient and responsive financial system support. Growing IT application and increasing participation will be the mainstay for the 'winners' in the euro-zone. Countries which would be able to show proactive participation by way of invoice switching, borrowings, under different options, and financial deals, and work-out support policies will get an increased share. The role of an efficient financial system in this context cannot be overemphasised.

In case of India, the Narasimham Committee on the Financial System (1991) was prophetic in recommending liberalisation and reform of the financial sector. The transformation which has taken place in banking and non-banking finance is reflected, on the one hand, in market-based credit, interest, monetary, borrowing and exchange rate policies and, on the other hand, in higher capital adequacy on the lines of the Basle norms, improved asset quality and asset liability matching.

As the (second) Narasimham Committee on Banking Sector Reforms (1998), as also the RBI's report on *Trend and Progress of Banking, 1997-98* have brought out, the per cent of net non-performing assets (NPAs) to total advances has come down to little over 8 per cent, but need to be brought down further to 5 per cent by 2000 and to 3 per cent by 2002. The number of private and foreign banks is now nine and 42 respectively. The increased net profits of public sector banks over a short period show the possibilities of further marketisation and improvement in productivity and profits. This situation should further lead to developments like 'universal banking' and electronic transactions. According to Narasimham, the convergence of the Indian financial system with the international system can be speeded-up through risk diversification, autonomy and customer satisfaction

Narasimham has also come out with the idea of creating one-stop financial supermarkets in the country, offering an array of financial instruments through product developments (S Ranganathan Memorial Lecture, IIC, New Delhi, November 11, 1998). The world over, the focus is on the customer needs, including the needs of exporters and importers, rather than on organisations and functions. Of course, in order to avoid a crisis like in south-east Asia, the 'bubble sectors' like real estate and stock markets should be kept out, but insurance, venture capital and the like should be covered. Open foreign currency exposure needs to be restricted. Financial supermarkets, having the benefit of economies of scale, may first serve the needs of international commerce, notably trade-related as also other services. Fears of monopolistic and cartel practices need to be overcome by a proper, legal and regulatory framework, and an evolved supervisory system.

One of the national objectives of the financial system should be to efficiently support the foreign trade sector for expanding markets abroad. In the context of the euro, therefore, a proactive game-plan needs to be pursued by the financial system without waiting for 2002 when the 11 currencies of the euro-zone will be replaced terminably. Already, the EU members who are out of the zone are feeling the pressures of their trading entities apprehending erosion of competitiveness.

The dawn of the euro has meant not only the emergence of a new single currency, but has also thrown open several opportunities and challenges in respect of financial services and 'virtualisation' of business entities around global brands, both made possible by availability of low-cost, high-bandwidth technologies for communication, and the IT system. Indian business should meet some of the requirements of the emerging markets due to outsourcing by the euro-zone so that foreign exchange earnings and profits can be increased at a significant rate. A wait-and-see approach may be prudent in respect of risk activi-

ties, but is otherwise likely to prove a cause of loss of opportunities. Indian exporters and the financial service players would gain by aligning themselves with the euro as early as possible.

The inter-bank euro-denominated deals struck by the Bank of America (for L & T and IPCL) and ABN Amro with the SBI, on the eve of the euro-launch were examples of proactive business, though more of as signals than real attempts to capitalise on the opportunities.

The RBI Working Group on the euro (October 1998) has brought out the issues and the implications which can help a proactive game-plan, including its recommendations regarding media, publicity, public initiative, customer education, HRD and training in the financial system Among other things, according to the working group, switching to the euro would mean an investment, including of time and financial and human resources by the companies, besides review of trade promotion, new business as well as new strategies and new contracts in the new context. Small and medium enterprises need to find new ways to organise their individual efforts to be viable and match the big boys.

As euro-zone plans for harmonisation of taxes and duties progress, there will not only be increased product and price transparency all round but also efficiency and stability in transaction costs, such as reduced or no banking fees for conversion of euro currencies. With the observed and projected low inflation (below 2 per cent), price stability will be the hallmark of the euro-zone, while low interest rates would enable expanded trade finance and capital transactions at low cost.

Certain guidelines have been issued by the International Chambers of Commerce to be useful during the transition period, which should be used for expedient preparation, including of business strategies, with the objective of early chipping-in.

Business organisations would be well advised to take a longer-term view to be able to meet the real challenges of business expansion. Strategies should include choice of right business locations, a review of critical parameters like production and infrastructure cost, as multiple locations for business may not be necessary. New ways to differentiate products will have to be found to overcome the absence of price variations across the euro-zone expressed in the single currency.

Fear of an increasingly closed euro-zone market, earlier seen in terms of 'Fortress Europe', may again prove irrelevant and self-defeating.

It is not enough to say that the business community and the banking system are ready to get into the exchange system of euro and expand the level of reserves as currency strengthens. If Indian business can be proactive in terms of taking a view of emerging business in goods as well as services at the earliest, aiming to expand foreign exchange earnings and to increase profits, the EU would be a source of strength for business in other markets.

Lessons for regional co-operation from EU and euro are clear as a 'role model'. A long-term approach to form customs union, community, and then a free currency area, beyond a free trade area, in south Asia as a whole needs to be actively discussed. The issue of Asian Currency Union (ACU) and an Asian currency (say, an asio) was put by the Philippines' president on the agenda of the recent ASEAN summit in Hanoi and found its way into the six-year Action Plan. This is considered a long-term possibility, given the strong regional linkages.

[Based on the author's key-note address to a colloquium organised by FIEO in New Delhi on January 22, 1999 The views expressed are personal]

US Policy on Iraq

Latter Day Gunboat Diplomacy

Harold A Gould

The failure of America's Iraq policy vividly illustrates the limitations of gunboat diplomacy.

IF the numerous attacks launched by the United States and its various assortment of allies against Iraq have proved nothing else, it is that so-called 'smart bombs' are really not all that smart. The misfire in Basra that killed many innocent civilians punctuates this fact. As do the persistent and essentially fruitless attacks now being conducted against Iraqi air defence systems. Repeatedly, the claims that have been made for these robotic instruments of surgical destruction have turned out to be vastly exaggerated. As has the political payoff supposedly accruing from their use. Saddam Hussein has merely rolled with their punches, dusted himself off, and resumed his dogged attempts to rebuild his military machine. There is a good reason for this sombre result. Gunboat diplomacy is passe. It did not work all that well in its original incarnation, viz, during the colonial era when it took the form of armed shallow-draft boats plying the Yangtze river taking pot-shots at war lords and remnants of the Ch'ing dynasty who got in the way of economic pillage by western imperialists. Its current manifestation, carrier task forces plying the Red Sea and Indian Ocean launching bombers, fighters and cruise missiles against recalcitrant west Asian states in an attempt to bend them to the will of the world's only superpower, does not do it either. In Iraq's case, its main accomplishment has been to enable Saddam Hussein to bolster his authoritarian grip on his people and heroise him in the eyes of radical Arab nationalists.

It is not that military means are never an acceptable aspect of foreign policy. Everybody knows that there are times when the use of force is unavoidable, as clearly it was in the second world war when the Axis powers posed a pervasive threat to the survival of liberal institutions throughout the world. As it was when Chinese troops poured across the Indian border in 1962 and threatened to destroy its national self-respect. The problem arises when the world's last superpower resorts to the use of force as a bullying tactic, as a substitute for an enlightened foreign policy, or as a means of covering up for the failure of a bad one. Informed strategic thinking, by contrast with gunboat diplomacy, sees military action as only the last resort when all measures short of war have been exhausted.

The failure of America's Iraq policy vividly illustrates this distinction. In 1991, Operation Desert Storm at least had the virtue of enjoying wide consensus in both the West Asia and the world community. Only Jordan among immediately contiguous Arab states refused to join the UN mandated coalition which the US led against Saddam Hussein. Turkey joined it as well, and so in varying degrees did many European states.

However, the aftermath of military victory revealed that even in these favourable circumstances there was little understanding of why the battle was fought in the first place, and even less understanding of what must follow politically in order to consolidate the fruits of victory. In the words of *Washington Post* correspondent Jonathan Randall, "Rarely in the history of human conflict had so great a power mobilised so many allies, moved so many troops and so much *materiel*, yet remained so purposely incurious about the nature of the enemy's society..."

The tragic flaw in the 1991 UN operation which consigned it to the status of gunboat diplomacy was the failure to go the extra mile and make sure that Saddam was either removed from power or at minimum politically neutralised within Iraq. This would have required no more than one more day of allied military action followed by a clear and comprehensive policy of breaking the Saddam faction's stranglehold on the Baath party, encouraging some degree of political separatism for both the Mosul Kurds and the Basra Shiites, and encouraging improved human rights for all Iraqi citizens. Instead, the US, as leader of the coalition, decided it must appease its Turkish ally by downplaying the political aspirations of the Kurds, placate its Saudi ally's (and its own) phobias about Iranian fundamentalism by inhibiting the political aspirations of the ethnically distinct Iraqi Shiites, and, in the name of 'regional stability', limit its own post-war initiatives to encouraging a military coup. Even if successful, the latter would have done nothing more than replace Saddam with another Iraqi general who would have employed the Baath party apparatus to perpetuate the Sunni-dominated Iraqi ruling class's power monopoly, which has been the country's bane for decades.

The best chance for a way out of its policy dilemma toward Iraq is for the US to formulate policies that do justice to the history and culture of the region instead of trying to shoot its way out of its self-created policy paralysis. This means initiating measures which in the long run offer some hope of modifying the Iraqi regime. First and foremost, the economic sanctions must end. Their principal effect has been to pauperise the Iraqi people and make them more dependant on the whims of the Saddam dictatorship than ever. Second, all possible means should be employed to pluralise Iraqi politics This requires actively encouraging a sufficient measure of political autonomy for the Kurds and Arab Shiites to enable them to parry Saddam's and the Baath party's autocratic predilections. Third, the Clinton administration needs to follow through on its recent pledge to support opposition groups both within and outside the country. The Iraq National Congress is one such formation but not the only one. There are indigenous nodes of opposition among both the Kurds and the Shiites that can be encouraged and actively supported. The goal should be a crystallising coalition of dissidents whose empowerment would permit the Iraqi people to reform themselves from within, according to their own light. US power could then concentrate on what a superpower should be concentrating on: The broad parameters of international peace and security rather than trigger-happy exercises in outmoded gunboat diplomacy.

Welfare Implications of Telecom Tariff Reform

Pinaki Das
P V Srinivasan

The suggestions made by the Telecom Regulatory Authority of India to reduce the price of international and long distance calls and raise telephone rentals and local call charges are eminently justified on efficiency grounds. Nor are the equity implications of the changes necessarily adverse.

THE Telecom Regulatory Authority of India (TRAI) recently made suggestions to reduce the price of international and long distance calls and increase that of local calls and telephone rentals. The debate that has followed this suggestion is mainly concentrated on addressing the question whether elimination of subsidies is desirable on grounds of equity. The possible adverse implications of the proposed reform on the achievement of the social goal of universal telephone service has also been a matter of concern. Another criticism of the TRAI recommendation has been that it has been based on Australian price elasticities which may not be relevant for India [Vyasulu 1998]. In this paper we address each of these issues in detail. We argue that the suggestions made by the TRAI are well justified on efficiency grounds. Moreover, the equity implications of the recommended price changes need not necessarily be adverse. Subsidising telephone rentals and local call rates is not the best way to achieve greater penetration. The efficiency costs involved in this are too great to be ignored. Other cheaper methods such as targeted subsidies need to be explored. Bringing down long distance prices is also welcome since it would pre-empt inefficient entry when the long distance sector is opened up to competition.

Estimate of own price elasticity of long distance calls for India based on public call office (PCO) data turns out to be very high. The elasticity is high enough to bring about an increase in producer surplus through a reduction in price rather than an increase. This means that consumer as well as producer welfare can be improved through a reduction in long distance rates alone without having to increase the local call rates. Since price elasticity is very high, marginal social cost of raising funds from taxing long distance service will also be high compared to taxation of other goods. This means that funds for achieving social goals such as telephone coverage in rural areas should be obtained from outside the telecommunications sector where the social costs would be lower.

Universal Service: A Demand Side Problem

The concept of universal service has played a role in regulatory decision process even in developed countries such as the US. Several interpretations have been given to the objective of provision of universal services. During the initial stages of development of telecom industry this concept pertained to geographic scope of the network. That is, telephone service should be available in all areas of the country and within easy reach. A more recent interpretation of this concept of universal service is that, local residential service should be made widely affordable by keeping the telephone rates as low as practically possible. Another way of looking at this concept is that access to telephone services should be available to all regardless of their ability to pay. This is the idea behind the provision of public telephones. Yet another argument is based on economic considerations. Because of the network externalities that get generated, there is a need to promote increased subscription to the telecommunication network. Benefits from access accrue not only to the subscriber added to the network but also to all those existing subscribers who can potentially reach him/her.

The objective of universal service, in the sense of affordability, has been pursued through pricing policies designed to maintain low rural rentals and local call rates. Prices were even held below marginal costs through a cross-subsidy from long distance calls. The disadvantages of such a system are many. First of all it involves costs in terms of efficiency losses. Since prices are different from marginal costs of provision of the service it distorts consumption decisions. It is also inequitable because all local users pay the same low rate irrespective of their ability to pay as reflected by their incomes. Targeted subsidies are more efficient.

Finally, and most importantly, subsidisation of local rates and rental charges may not really serve the objective of universal service. Theoretical and empirical studies of demand for access have shown that the decision to connect to the service is extremely insensitive to price of access and relatively much more sensitive to income levels [e g, Taylor 1994 and Hausman 1997]. TRAI recommendations for tariff changes are based on the assumption that local calls are currently being priced below their marginal costs of production, and that long distance calls are priced above their marginal costs. In fact, this kind of cross-subsidies would only imply that inefficiency in local exchange service is being encouraged in the garb of promoting universal service. If the local services are open to competition the costs are likely to decline significantly and the need to subsidise local rates will decline. Also if price is held above cost for cross-subsidy purpose, as in the case of long distance calls, it can attract inefficient entry. Consumer interests will be best served through adoption of economically efficient pricing, encouragement of competition and reforming the system of providing universal service.

A major problem faced in the provision of universal service is in terms of geographical coverage. Covering distant rural areas with low subscriber density involves high costs. So far, it appears that the DoT has only been tackling the supply side of the problem, and the emphasis has been on finding technological solutions to covering widely spread areas with a low subscriber density. The usage, or demand side of the problem has by and large been ignored; it was assumed that supply will create demand. Of the 0.6 million villages in the country about 0.33 million have telephones. Of these about 5 per cent of the villages have rural exchanges and the rest have just village public telephones (VPTs) connected to the nearest rural or urban exchange. This remarkable coverage has actually been achieved in the last three to four years during which period more than 50 per cent of the villages have been covered. Considering the size of the country and the scattered nature of its villages this is no mean achievement. But there is a lot

that these impressive numbers hide. How many of these VPTs actually work? How many are in use? Survey of villages in Kutch district, Gujarat, revealed that more than 60 per cent of the multi access radio relay (MARR) VPTs were faulty. Of the remaining, a high percentage were disconnected due to non-payment of dues, so that in effect, very few are in actual use [Das 1998]. Provision of access does not ensure its use. Several social and economic factors intervene, creating a situation where, on the one hand, we find the state allocating funds with great difficulty to provide access to remote villages and, on the other hand, the VPT goes out of use within months of its installation Such a paradoxical situation undermines the very concept of universal service coverage.

What could be the reasons for this evident lack of maintenance and frequent disconnections? Inappropriate location of the VPT, inability to pay for the service, inadequate awareness regarding the uses of telephone and lack of incentives for the person in charge of maintenance of VPT, appear to be the major problems. Ideally the telephone should be located in a place where it can be accessed by all sections of society, for the longest possible duration, and someone should be nearby to collect the money and to receive messages Since 1991, the VPTs have been installed mostly at the panchayat premises The sarpanch is susceptible to 'popular' pressures from villagers who take it as a benefit provided free by the government In some cases the sarpanch pay the entire VPT bill out of his/her own pocket or allocates a part of the funds at his/her disposal for this purpose. However, this is not true in general and the telephone gets disconnected due to non-payment of arrears, after being in use for a few months.

It is only in recent times that the department is allowing VPTs to be installed in village shops – usually a grocery store. Earlier most of the VPTs were installed in the village post office; consequently people had to pay for the calls. The post office is under no obligation to provide 'free' service, and calls get paid for; so is the case with the local grocer. Other possible sites for location are the village school, or the temple/mosque/gurdwara. From the point of view of maintenance it becomes very important that there exist a person or group in the village who will directly benefit from its use and hence be motivated to ensure continuity of service. Even where VPTs are in working condition, the revenue generated is low; one reason for the low volume of calling is the lack of STD facility in most rural areas. The government plans to provide a telephone in every village by the year 2000 and expects the private operators to share this responsibility. But as the network reaches out to more and more remote areas the potential for generating calls is likely to diminish In the short run, therefore, franchising VPTs cannot be a solution as it works on usage volumes.

Finally, telephone does not seem to touch the lives of the rural poor; only a few who are in need of day-to-day communication can hope to benefit by its use. Universal service, even if it were achieved will not really mean much to a vast majority of rural India, unless provision of telecom service in the villages is integrated with a much wider programme of dissemination of information and knowledge that fundamentally reorient rural living The rural sector lags behind in telephone usage and adopting of other new information technologies mainly because of economic barriers as well as low educational levels.

To conclude, at present achievement of universal service requires more of tackling the demand problem rather than the supply problem, though both are of equal importance Unless the problems discussed above are adequately solved, universal service will continue to remain a myth, even if the supply side of the problem is taken care of.

Price Elasticity of Demand: Implications for Tariff Reform

In its proposals for telecom pricing the TRAI had to base its calculations on elasticities obtained for Australia [Government of India 1998]. The major reason for this is the lack of appropriate data suitable for estimating demand relations. For example, it is difficult to obtain a break-up of telephone usage between residential and business customers or between local and long distance calls. As long as the DoT was the sole provider of this service, it had devoted its entire effort to managing/containing the backlog of supply and as a consequence the data that were generated in that process were predominantly in terms of penetration rates and waitlists. The thrust for data hunting coincides with the opening of the sector to private investment and it is unfortunate that most of the data that are being generated now are proprietary in nature – data that may never enter the domain of public debate. Even in developed countries, since 1980s, because of the increased competition data have become proprietary in nature making the access to data increasingly difficult. Yet the important issues that concern the investor,

Table 1 Price Elasticity of Demand for Long Distance Calls

Explanatory Variables	Public Call Offices (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Price	-0.11	-0.14	-0.17	-0.15	-0.19	0.07	-0.15	-0.15
	(-4.5)	(-4.4)	(-4.5)	(-3.7)	(-3.0)	(-2.6)	(6.6)	(-8.6)
Ddz1	-2.1	-3.3	-5.5	3.6	5.8	-1.0	-4.1	-3.7
	(3.1)	(-3.6)	(5.0)	(-3.3)	(3.5)	(-1.3)	(-6.4)	(-7.4)
Ddz2	-0.7	-2.4	4.3	-2.1	-3.2	-0.5	3.1	-2.9
	(-1.2)	(3.3)	(-4.8)	(-2.3)	(2.1)	(-0.8)	(-6.0)	(-7.2)
Ddz3	0.2	-1.6	-2.5	-0.8	-2.3	0.2	-1.7	-1.9
	(0.5)	(-2.4)	(-3.1)	(-0.9)	(-1.6)	(0.3)	(-3.5)	(-5.0)
Ddz4	0.6	-0.2	-0.9	0.3	-0.5	1.1	-0.4	-0.2
	(1.6)	(-0.3)	(-1.3)	(0.4)	(-0.5)	(2.4)	(-1.1)	(-0.6)
Ddz5	-1.0	-2.4	-1.6	-2.3	-2.0	-1.9	-2.2	-1.7
	(-2.8)	(-5.1)	(-2.8)	(-4.0)	(-1.9)	(-4.9)	(-6.8)	(-6.6)
Dtz1	1.0	1.5	2.6	1.5	3.1	1.5	1.9	1.6
	(2.3)	(2.7)	(3.9)	(2.3)	(3.0)	(3.3)	(5.0)	(5.2)
Dtz2	0.4	0.6	0.9	0.9	1.6	0.4	1.2	0.8
	(1.4)	(1.7)	(2.1)	(2.0)	(2.3)	(1.5)	(4.7)	(3.9)
Constant	[illegible]	7.5	8.2	6.3	8.2	5.1	7.8	7.3
	(14.7)	(12.1)	(11.0)	(8.5)	(6.1)	(10.0)	(18.0)	(21.7)
$\bar{R}^2$	0.87	0.81	0.72	0.81	0.54	0.89	0.90	0.92

Note The regression results using data from each of the eight public call offices are given separately The dependent variable is duration (seconds) of calls made per day (acd) in each time and distance zone during a two-month period Number of observations is 18 since there are 6 distance zones and 3 time slots A semi-log functional specification is used [log(acd) = B0 + B1(price) B2(Ddz1) + + B5(Ddz5)+ B6 (Dtz1) + B7(Dtz2)] Price is measured in rupees per minute of call duration Ddz1-Ddz5 are dummy variables indicating the distance zone in which the call is made 1 denotes the shortest and 6 the longest distance zone. Similarly, Dtz1 and Dtz2 are dummy variables indicating the time slot in which the call is made. 1 denotes the peak period (8 00 AM to 7 00 PM) and 2 and 3 denote off-peak periods Dtz1 takes the value 1 if the call is made in time zone 1 Dtz2 takes the value 1 if the call is made in time zone 2 (6 00 AM to 8.00 AM and 7 00 PM to 9 00 PM) For each of the distance zones, prices in the time slots 1,2 and 3 are in the proportions 4 2 1

as well as the consumer at large, like those relating to the question of cross-subsidisation and tariff rebalancing can hardly be resolved without an idea of the relevant cost and demand parameters.

In a study on telephone usage demand for India, Das and Srinivasan (1998) make use of PCO data to estimate price elasticities of long distance calls. The data source for this study is the printout of detailed bills for eight STD PCOs of Tiruverambur (near Trichy) for the billing period November 1993 to January 1994. This data set contains information on each call made during the two months for each of the PCOs; the duration of the call, destination called and the time of the day when the call was made. Unlike in the household or personal level data, in the PCO data the caller identity is unknown. It is therefore impossible to identify residential and business demand parameters separately. It is also not possible to analyse the effect of socio-economic variables on the call behaviour. However, the information is sufficient to estimate the own price elasticity of demand for long distance calls. Tiruverambur being a small town, the PCO data is likely to represent only the low end users such as the small businesses, households, the travelling public and customers from the surrounding areas without access to telephones. The demand patterns observed therefore need not necessarily represent the general consumer behaviour. At the same time if one considers the fact that PCO traffic constitutes a sizeable portion of the national traffic the estimates can be taken with a greater confidence.

Although telephone tariffs are fixed for the period for which the PCO data have been considered the price per minute of call varies with the time of the day and day of the week, when the call is made and the distance zone to which it is made. In order to get adequate price variation it is assumed that there is no price induced substitution between calls made to different distance zones. If this assumption is not made, then one has to estimate call demand for each of the distance zones as a function of own price and the prices of calls to all other distance zones (substitute prices). In such a case, one is left with very little variation in prices, price per minute of call in each of the distance zones taking only three possible values corresponding to the three time slots in a day. This assumption, however, is a very reasonable one. Hardly anyone would substitute a call to a person in one distance zone by a call to a different person in a different distance zone simply because the latter is cheaper. One could of course, expect the length of a call (or number of calls) made to a person in a high price distance zone to be lower as compared to calls made to low price distance zone. Or, the longer the duration of a call is likely to be the higher are the chances that it is made in off-peak hours where the price applicable is lower. Although the relative prices of calls made in the three different time slots are the same across different distance zones, it can still be expected that the frequency with which calls are made in different time slots varies with distance zones. This gives us an opportunity to estimate price sensitivity of demand for calls even though the tariff structure is fixed for the data period. In all the PCOs considered it is noticed that for the largest distance zone the number of calls made in the off-peak period are higher than in the peak period. This is because the longer the distance, the higher is the price of a call per minute and hence higher is the benefit of substituting a peak hour call for an off-peak hour call. Thus, given the data on the length of calls made and the time and day at which they are made, one can obtain the price elasticity of calling time.

The estimates of own price elasticity have been obtained by using a semi-log functional form. Demand, which is measured as the average call duration per day, is expressed as an exponential function of price (rupees per minute of call) and other exogenous variables such as dummy variables for time and distance zones. This specification implies that the price elasticity of demand is proportional to price and therefore allows the estimation of elasticity for different price categories. The price coefficient obtained from the regression equations for the different PCOs varies from –0.07 to –0.19 (Table 1). Since the regression equation is of semi-log functional form the price elasticity is obtained as the price coefficient times price. Thus, for the lowest price category (rupees 1.64 per minute of call time) the elasticity estimate ranges from –0.11 (–0.07×1.64) to –0.31 (–0.19×1.64) and for the highest price category (rupees 39.30 per minute of call time) it varies from –2.75 to –7.47. For the middle level price category (rupees 19.65 per minute of call time) it varies from –1.37 to –3.70.

The price elasticity of demand for calls in the least price category can be assumed to approximate the price elasticity of local calls. The own price elasticity of demand for the long distance calls is approximated by the estimate corresponding to the intermediate price category. The elasticity values in the case of local calls are comparable to those obtained for developed countries. However, the values for long distance calls are much higher than those obtained for these countries (Table 2).

One major implication of the very high own price elasticity of long distance calls is that welfare gain (increase in both consumer and producer surplus) is possible through a decrease in the price of long distance calls alone without touching the other prices [Das and Srinivasan 1998]. This will hold so long as the price charged is in excess of marginal cost of production (or, equivalently marginal cost to price ratio is less than unity). In fact, welfare gain can be achieved by decreasing prices of all the three items: long distance, local and rentals. A decrease in all three prices leads to increase in consumer surpluses from the consumption of these items. When the own price elasticity of long distance demand is high, a price decrease results in an increase in producer surplus also. This result however, depends on the value chosen for the price-cost mark-up. For the given own price elasticity (–3.7) this result will hold only when the ratio of marginal cost to price is below 0.7. The results presented here have been obtained by

TABLE 2: OWN PRICE ELASTICITIES FOR INDIA AND OTHER COUNTRIES

Country	Year of Study	Local Calls		Long Distance Calls	
		Short-run	Long-run	Short-run	Long-run
USA	1973	–.21	–.27	–.88	–1.03
Canada	1972	–.20	–.70	–.11	–2.57
Sweden	1974	–.27	–.38	–	–
Great Britain	1974	–	–	–.72	–1.12
Australia	1997	–.04 to –.38	–	–.21 to –1.55	–
India	Current	–.11 to –.31	–	–1.37 to –3.7	–

Note: (–) indicates estimates not available. The estimates for countries other than India and Australia are all obtained using time series data with price deflated revenue as the dependent variable and relate to combined residential and business demand [source, Taylor 1994]. The estimates for Australia are as quoted in Government of India (1998). The estimates for India are obtained using PCO data where the dependent variable is the duration of call made. The own price elasticity of local calls is approximated by the elasticity of the average call duration per day of calls made in the least price category (Rs 1.64 per minute of call time). For long distance calls, the price elasticity is approximated by that obtained for duration of long distance calls in the middle level price category (Rs 19.65 per minute of call time).

assuming a value of 0.6 for this ratio. For the both the local calls and telephone rentals this ratio is assumed to take the value 1:4. The increase in consumer surpluses, along with the rise in producer surplus in the case of long distance calls, outweighs the loss in producer surplus arising from a reduction in local call tariff and rental charges. Thus, if the demand for long distance calls is indeed highly price elastic as is evident from PCO data and the price-cost mark-up is close to the value assumed, the proposed reform will lead to a welfare improvement. The TRAI could in fact afford to decrease long distance prices alone or even decrease all three prices and make it widely acceptable to the public. The fact that decreasing prices of all the three items: local, long distance rates and telephone rental can increase welfare gain indicates that the current structure of cross-subsidy is itself inefficient. One could have subsidised local calls further by choosing to charge a lower price on long distance calls! But beyond a certain point further reduction in long distance rates would start resulting in a loss of producer surplus. This is because the result depends on both the magnitudes of own price elasticity as well as the price-cost mark-up. For a given price elasticity as the price-cost mark-up approaches zero, a price fall is more likely to result in loss of producer surplus. Thus at some point of time if long distance rates are to be reduced without affecting producer surplus, the other rates have to be increased thereby reducing cross-subsidies. This brings us to the issue of equity implications of such a move.

Equity Implications of Proposed Price Changes

It has been argued by some that the recent proposals of TRAI are undesirable from equity point of view. The decrease in rates on long distance and international calls is being interpreted as benefit accruing to the rich and the increase in the price of local calls as a loss to the poor. While it may be true that low volume users are mostly local call users, it is not necessary that all of them are poor. So there is really no justification for providing subsidy uniformly to everyone. Targeting subsidies to particular user groups – low income and other deserving groups such as rural VPT users, elderly and widows – would be a better way. Although, the high volume users are predominantly long distance callers, they may be making equally large number of local calls. Long distance calls as a proportion of total calls need not necessarily be high for them. In other words many of them would be using both the services and removal of cross-subsidy need not imply a net transfer of benefits to them.

One might argue that a better way of achieving equity is through cross-subsidisation of the residential by the commercial users. However, it may not be easy to make a distinction between the two groups. Even if such a distinction is possible in practice the firm might be passing on the increases in the cost of inputs to the final products' price. In such a case the incidence on the final consumer is not obvious. In any case the purpose of equity is already being served by the inverted block tariff structure currently in place, where in the high volume consumers face a higher marginal price compared to the lower volume ones.

Concluding Remarks

The main purpose, as laid out in the National Telecom Policy [NTP 1994] of allowing private participation in the telecom sector was to bring in funds for network expansion. It was also expected to bring in better service and infusion of state of the art technology that would follow naturally from competition (guided by a regulator) and involvement of international players. The process of selection of licensees had two main ingredients/criteria; (1) licence fees and (2) network roll-out and village coverage. The high licence fees pledged during the bidding process are apparently the biggest threat to the profitability of the present basic licensees. It is perhaps no coincidence that, short of scrapping these fees altogether, the tariff revisions as suggested by TRAI, could go a long way in making these held up investments viable. It would also enable the entrant operator fulfil its VPT obligations better. On its part, the TRAI, in authoring the tariff rebalancing that ensures viability of private investment, needs to be equally vigilant about compliance to network roll-out and village coverage promised by the licensees; this would be in keeping with the objectives of NTP 1994. Thus, the rationale of the TRAI recommendations is very clear: to bring tariffs in line with costs; thereby prevent inefficient entry in the long distance sector (which is to be opened up for competition) and also to encourage efficient and low cost technologies in the local loop competition. The main opposition to these recommendations has been on equity grounds as well as the possible adverse implications for the social goal of universal service provision. We have argued in this note that the fears expressed on these counts are not reasonable.

The emphasis on universal coverage stems from the realisation of the link between telecommunications and development. But in practice, this link remains largely confined to the urban-manufacturing society. To carry it over to the rural sector presents the most important challenge to the government. Trials or demonstrations of the use of different services and promoting the use of telecommunications and diffusing of new technologies should be part of the government's strategy for achieving universal access. There are areas that offer new economies of scale. For example, telecommunication network can help small businesses reach out to a sufficient number of customers to form a viable market. Another example is a public service such as distance learning or adult literacy through the internet. Courses can be initiated from anywhere, as long as a school is in the network. If a number of spatially separated schools can join in use of a course then there can be a sufficient economy of scale to offer it. Other applications are possible in the areas of rural health care and law enforcement where telecommunications can help in better co-ordination of delivery and administration of these services. Dissemination of information in areas like micro/macro weather forecasting, and along irrigation canal systems can also be useful avenues where telecommunication can be helpful in much broader spheres of rural activity. Only when telecommunication comes embodied in technologies/practices that are of direct relevance to the rural poor, will universal service truly become relevant in the rural areas.

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The Hindu Opprobrium, Not Equilibrium

Ranjit Sau

Unintended Consequences: The Impact of Factor Endowments, Culture and Politics on the Long-Run Economic Performance by Deepak Lal; Cambridge, MA: The MIT Press, 1998; pp x + 287.

Men nearly always follow the tracks made by others and proceed in their affairs by imitation.
– Nicollo Machiavelli, *The Prince* (1514).

THIS book is an expanded version of the author's Ohlin Memorial Lectures delivered at the Stockholm School of Economics in 1995. It is an extraordinary piece of work; it opens up a wide window through which the reader can see across continents, centuries, and civilisations. The subtitle gives away the vastness of its scope and much more, while the title makes you hold your breath in suspense.

The architecture is superb. The society, Lal visualises, has a number of different processes with their respective equilibria that could explain social outcomes. They can be distinguished by the period of time over which the equilibrating forces work. The quickest working is the commodity process of supply and demand, which leads to a market equilibrium. The second fastest are the processes leading to an equilibrium regarding material beliefs – beliefs which are related to ways of making a living, that anthropologists and archaeologists call the material forms of a culture. These processes shape the organisational framework within which the market operates. Changing signals from the environment can alter such material equilibria within the life time of one generation. Third, next slower moving are the cultural equilibria associated with another set of beliefs – known as cosmological beliefs – those related to understanding the world around us and the humankind's place in it which determine how people view their lives – its purpose, meaning, and relationship to others. These would seem to require at least a generation or two to alter. Finally, there is the darwinian evolutionary equilibrium associated with the 'selfish gene' which we have inherited from our thoroughly selfish ancestors who roamed for millennia in bands of hunter-gatherers. Evolutionary psychologists say that given the time frame of darwinian processes of 'inclusive fitness' – it takes about 10 thousand years to produce a new species – much of our current biological nature must have been formed in the distant past, in particular during the hunter-gatherer phase of our development. It is unlikely that natural selection has since markedly changed those instincts. The evolutionary equilibrium is thus the slowest-moving of all. We can ignore it in this investigation, except for its legacy in our mind.

In the perspective of historical long run, as Braudel has so eloquently shown, "mountains, not monarchs...come first". That is to say, relative factor endowments – of land, labour and capital – remain the most basic building block to explain many surprising outcomes in the spheres of culture, economics and politics. They are the DNA of the story Lal tells. But he is not committed to either crude geographical or historical determinism. Lal looks "at parts of world history through a very, very wide lens!".

The early stirrings of civilisation took place about 10 thousand years ago with the invention of agriculture in the hills of nothern Iraq or Kurdistan where wild wheat and barley were abundant as nature's gift. In course of time ancient civilisations arose in the river valleys of the Tigris and Euphrates, the Nile, the Indus, and the Yellow. These civilisations were based on fairly intensive cultivation with annual cropping nursed by irrigation. The regions in the north and in the south of these abodes of agrarian civilisations had different ecological conditions, not favourable for intensive cultivation. They became nomadic pastoralists, the north herding cattle and horse in grasslands, the south rearing sheep and goats in semidesert. These pastoralists of the north and south, as much as the settled agricultural civilisations on which they preyed, were an essential part of the dynamics that has created the modern world.

As the subtitle of the book goes, next comes culture, to which belong material as well as cosmological beliefs. The material base produces the philosophy and the means of living.[1] The rich Nile valley lies isolated and protected between empty deserts on either side. Egypt derived its prosperity from annual inundation of the Nile, which never fails to rise, even if floods differ greatly in effectiveness. By contrast, Mesopotamia lacks clear boundaries and was periodically looted by the mountaineers on its east or the nomads on its west. For much of its grazing it depended on uncertain rainfall and on the banks of its river Tigris which was most unaccountable, turbulent, and dangerous. Both societies, Egypt and Mesopotamia, reflected the natural rhythms of the season in their festivals. But whereas in Mesopotamia they were imbued with a sense of anxiety, with the solemnities moving from deep gloom to exultation, in Egypt they merely reaffirmed that all was well with the world. The Egyptians, the ever optimists, had a static view of the universe, believing that the cosmic order had been established at its creation. Denying the reality of death, they considered life to be everlasting:humans survived even though the body decayed.

If ecological differences account for these different cosmologies of the two ancient religions, they can also explain that of the third major near eastern religion which has had even longer life and has changed the world – Judaism. The nomadic people had a third form of kingship which differed from that of the ancient Egyptians and Mesopotamians. This type of polity is found among people who acknowledged kinship above every other bond of loyalty and whose coherence derived from a shared nomadic past than from what they had achieved as a settled community.

The Hebrew cosmological beliefs, Lal narrates, were formed in a kingless period. Their god was a transcendent god who had primacy over any other earthly powers. And the tribes accepted a king only under exigency to "go before us and fight our battles" against alien oppression. Thus where kingship was a function of the gods in Egypt and a divinely ordained political order in Mesopotamia, for the Jews it was an institution set up to deal with an emergency. Thus, unlike the kings of the Egyptians and the Mesopotamians, the Hebrew king lacked sanctity. "The relationship with his people was as nearly as secular as is possible in a religious society. Nowhere else in the near east do we find this dissociation of a people from its leader in relation to the divine."

Our hunter-gatherer ancestors have bequeathed us rugged, egotistical indi-

vidualism. Meanwhile, human nature has acquired another trait – 'brotherly love' – from culturally transmitted cosmological beliefs. The latter is often labelled 'collectivism'; but Lal prefers the term 'communalism' instead. However, communalism has a very different meaning in India. So I shall refer to it as 'fraternalism'.[2] Ever since the rise of the great Eurasian civilisations both individualism and fraternalism have been ingrained in man's character. Some social psychologists have attempted a quantification of these attributes across different cultures. One important finding is that the west is more individualist than the rest. In this respect the west appears to be closer to the hunter-gatherer societies than to agrarian civilisations which were primarily fraternalistic. But, inasmuch as the west, too, was initially a part of the ancient agrarian Eurassian civilisations, its current exceptionalism needs some explanation. Why and how this changeover took place and with what consequence is a central theme of this book. And on it hangs an interesting tale.

Individualism may be defined as "the view that the society is constituted of autonomous, equal units, namely, separate individuals and that such individuals are more important, ultimately, than any larger constituent group. It is reflected in the concept of individual property, in the political and legal liberty of the individual, in the idea of the individual's direct communication with God." English local records, legal textbooks, and autobiographical documents show that since the 13th century England has been a country where the individual has been more important than the group. The present English family system is much the same as it was in 1250 AD and is not the result of the industrial revolution of the 18th and 19th centuries. There is little doubt that by the 13th century individualism was in place in at least a part of western Europe.

But its origin goes back to papal decisions in the sixth and 11th centuries. The two revolutions of Pope Gregory I on the family, and of Pope Gregory VII in the creation of modern legal institutions, have had lasting effects on the west, besides being the crucible for its key cosmological belief – individualism. In response to queries raised by Augustine, the first Archbishop of Canterbury, in year 597 Pope Gregory I forbade four popular habits: marriage to close kin, marriage to close affines or the widows of close kin, the transfer of children by adoption, and finally, concubinage, a form of secondary union. Gregory thus overturned the traditional Mediterranean and West Asian patterns of legal and customary practices in the domestic domain. These papal injunctions inhibited a family from retaining its property and promoted its alienation. This is, of course, what the church wanted, for, from its inception, it had grown and become a rich landlord through gifts and donations. Hereafter, the church's accumulation knew no bound.

In year 1075 Pope Gregory VII declared the political and legal supremacy of the papacy over the entire church and the independence of the clergy from secular control. Gregory also asserted the ultimate supremacy of the Pope in secular matters, including the authority to depose emperors and kings. About this time the moment of self-generating economic expansion came to western Europe. There was no single outstanding technological innovation behind this expansive movement, but a combination of many circumstances: growing accumulation of capital, rising population, the return of the Mediterranean to western control, the political decline of the Greek and Moslem empires, all helped to open up everenlarging propsects of the west. The papal revolution provided the institutional infrastructure for this western economic dynamic. The most important for the economy was the development of the law of the merchant in which various rights and obligations associated with commercial relations came, under the aegis of the church, to be consciously interpreted as constituent parts of the whole body of law.

For the west that marked the turning point. Between the sixth and 11th centuries thus Popes Gregory I and Gregory VII paved the way for the primitive individualism to rise from the slumber lulled as it was by the cultured human propensity of fraternalism (a k a 'collectivism' and 'communalism') which in turn had grown in the agrarian civilisations of Eurasia. The 18th century enlightenment further invigorated individualism. In the following two centuries individualism had wreaked havoc in the west by disrupting family life, prompting crime, violence and drugs. For the modern world it is of immense significance.

In Lal's perception of history, let us recall, the starting point is geography from which flow philosophy, polity, and finally the economy. What I find missing from all this is the reverse flow: the feedback from economics to politics, philosophy, and even geography, and the simultaneous evolution of all of them together, however, non-synchronous. Of course, 'that is Mount Everest' is a brute fact as Lal insists; but our knowledge about the mound of earth is not a fixed, known datum. To be sure, land can be upgraded, labour can be improved, and capital can be accumulated by the free will of the people. Factor endowments are not altogether exogenous. To be more specific, I do not find 'man' as a self-conscious 'rational animal'[3] playing a role anywhere in Lal's description. He or she is shown always dictated by mountains, rivers, deserts, Pope, priest, or prophet. He or she always toils hard to deliver surplus to the parasitic elites. And those elites, in turn act like robots that somehow make the primary producers behave. Even those elites do not decide, they do not choose, so they are as good as dead. I shall illustrate this point further with reference to Lal's attempt to rationalise the Hindu caste system as a mechanism for resource allocation. I shall argue that our ancestor aryans had as many as five options to address the fundamental problem of survival. Lal nowhere proves that the caste system was for them the best solution. He takes the caste system as given, and then proceeds to rationalise it.

About three thousand years ago pastoral aryans entered India. In those days they themselves were divided into three broad classes (not yet castes, mind you), viz, the brahmanas (priests), the kshatriyas (warriors and aristocracy), and the vaishyas (common people). Advancing through the Gangetic plain they defeated the "darker, snub-nosed, indigenous non-aryan peoples", and treated them as 'dasas', almost equivalent to slave, but not quite. Now the 'varna' the colour of the skin, comes to the forefront: the aryans are fairer, the other darker. The dasas were offered a place at the fringe of the society under the category of shudras. With this addition the outlines of four-class varnas became rigid. Whilst the four varnas provided the broad conceptual framework for the evolving Hindu society, in practice the social system consists of numerous occupation-specific subcastes or 'jatis', all ordered in rank. The interweaving of these micro subcastes is the real fabric of the fragmented Indian society, rather than the more aggregative, macro varnas.

Farming came to be largely dependent on the shudras, most of whom in the earlier phase of aryan conquest were landless and hence of very low status. By about the second half of the sixth century BC a social category even lower than the shudras appeared, the so-called untouchables, who were considered outcastes, beyond the pale of aryan society. They were assigned the job of scavenging. Thus the broad contour of the Hindu caste matrix was drawn. In

course of time thousands of divisions and subdivisions would spring up.

Lal's thesis is that the caste system provided a subtle and enduring answer to the aryan's need of maintaining rural labour supply. It established a decentralised system of control which did not require any overall and larger political community to oversee, and it confirmed that any attempt to start new settlements outside its map would be difficult if not impossible. The division of labour by caste and its enforcement by local social ostracism were central to the schema.

Any oppressed group planning to leave a particular village to set up on its own would find that, if it were confined to a single caste group, it would not have the necessary complementary skills specific to other castes to start a new settlement. They would therefore have to recruit members of other complementary castes to join them in fleeing the aryan perimeter. The likelihood of that would be remote. For some of those other complementary castes would already have a high ritual and economic status, with little incentive to move to the more uncertain environment of a new venture.

Lal illustrates Robinson (Crusoe) Chatterjee, stranded alone in an island would not survive long. For, being a brahmin he would not fish, till land, or climb a tree to gather mangoes. Likewise, one may add, Robinson (Crusoe) Kamar, in a similar plight, will perish almost the same way as he knows nothing but the craft of a blacksmith. Even before starvation he may die of shame as there is no priest around to do 'puja' for him and bless his soul every morning.

The division of the labour along caste line could be maintained, Lal claims, purely through the instrument of social ostracism without a central church or political coercion. He cites Akerlof's model of caste equilibrium as a proof of 'An Economic Rationale for the Hindu Social System'.[4] But I see little relevance of that algebraic construction, however elegant, in the context of our ancestor aryans, some three thousand years ago, pondering over how to send labour to the farm on the valley. Here are my reasons for doubt. The Akerlof production function has only labour as input. Labour is of two kinds, namely, vaishya and shudra, to use the terminology of Lal [1988:41]. Now comes the rub. The firm's production function is additive. And that robs Lal of his own argument in favour of caste system, that is, the organic complementarity of caste division of labour. For given such a decomposable production function all shudras could just walk out of the aryan captivity and live happily ever after in a separate village of their own.[5] Well, let that pass.

Second, the wage rate is equal to the marginal productivity of labour by assumption. The production function is, of course, homogeneous of degree one. So at the end of the day the entire product gets exhausted paying for wages.[6] Under the circumstances the high-caste Hindus would have nothing left to eat. Well, let that pass.

Third, the high-caste Hindus have read their Machiavelli carefully. They know that once a tradition gets started and runs for a while the word will get around. Information being an expensive item, if for nothing else, poor vaishyas and shudras will imitate whatever they see and hear, imitation being a deep-rooted attribute of human nature.[7] Soon the atmosphere would look like that of a decentralised costless general equilibrium so familiar to economists.

But that tranquillity at the surface is a bit deceptive. The machinery of caste has as a set-up cost as well as operating costs. To introduce and maintain a caste regime, one imagines, it would take a lot of scriptures, slokas, mantras, rituals, pujas, and tons of ghee, not to mention threats and actual application of royal force on occasions. All this does not come free. The moment such costs are inserted in the Akerlof model the results are somewhat disturbing. The ratio of vaishya and shudra labour now becomes subject to a specific law of motion.[8] Contrary to what Lal assumes implicitly, it is too much to expect the caste system by itself to preserve that required castewise proportion over three millennia, unless human procreation is functionally and appropriately related to caste. To bring about the necessary labour-market equilibrium by regulating with caste codes the human habits of reproduction in an economy no less complex than that of Walras or of Arrow-Debreu would be no mean feat, if possible at all.

Europe had slavery. China had a sort of serfdom. Maybe, the aryans in India could not try either for whatever reason. Is there any other way? Besides caste control at least two more come to our mind. To begin with, we ought to distinguish between ends and means. The basic problem of the non-working aryans in the Gangetic valley was to procure a steady supply of *surplus-product* from primary producers, not a captive supply of farm labour as such. Tying up low-caste people to inferior jobs is just a means to that end. They could have got that surplus-product by extracting in a market what Marx calls 'absolute rent' as distinct from the Ricardian differential rent. That would, of course, require regulating the supply of land, which was not impossible. Land was never free or in excess supply. In those virgin swamps of tropical forests on river Ganga, land had to be cleared and reclaimed at high cost. Cultivation also involves operating costs – seeds, irrigation, manure. In a word, the poor could not afford it on their own.[9] Under the cirucmstances regulating land supply would have been presumably no more difficult than fine tuning labour supply to myriad jobs by monitoring demography subcaste by subcaste which is done in Lal's schema.

A fifth alternative suggests itself. After all, necessity is the mother of invention. In history technological innovation has been the society's response to resource constraint. All those resources which the Hindus poured into running the caste show could have been better spent on making labour-saving devices if labour was the bottleneck. Our ancestors have revealed their competence in many a field. Why they misused this route remains a mystery to me.

We have argued that caste cannot be an efficient mechanism for intersectoral allocation of labour. Nor can it be an effective valve for modulating aggregate labour supply. Since there was very little activity outside of agriculture, and no city to flee to, the question of 'tying labour to land' does not arise. And the caste tag is not a high boundary-wall around affluent aryan villages, nor is it a fence posted on the ground, nor even a hammer to pound with; so it could not be wielded as a means to nail a person down to a particular village or to a specific landowner. Caste was conceived in the womb of racial prejudice, not of economic calculus. Once born it has had its own life. It has served as a tool of exploitation. Lal reached wrong conclusions because he asked wrong questions. He focused on wrong periods of history. He should have positioned himself at the dawn of the creation, not at the high noon of caste configuration captured as it is in the Akerlof model. This completes our proof of the following.

Theorem: Lal's doctine of so-called Hindu equilibrium is false. Division of labour by caste cannot sustain long-run economic equilibrium. It condemns the economy to stagnation and decay. QED.

A reviewer has the liberty to question an author's construction without offering a replacement. Regardless of that privilege I shall venture to speculate on how the caste system, despite its weaknesses came into force in the first place, and then

what makes it stubborn.[10] I shall do it by analogy.

For over a century the first six keys on the top row of letters on a typewriter are Q, W, E, R, T, and Y. But this keyboard is not the optimum arrangement of letters for promoting speed and accuracy of typing. Most of the world's records for speed typing have been set on typewriters that use the Dvorak Simplified Keyboard (DSK), patented in 1932 by August Dvorak and W L Dealey. Yet the QWERTY standard has not been overturned; on the contrary now it has even invaded by the personal computer. This phenomenon is explained in terms of 'network externalities' on which there is a vast and growing literature.[11] At a more formal level using the mathematics of non-linear Polya process it can be shown that "the technology that comes to dominate – the structure that emerges – does not necessarily have to be the 'best' or most efficient; events early on can lock the system into an inferior technological path."[12] Furthermore, "once a single-technology structure emerges and becomes self-reinforcing it is difficult to change it. If it were desirable to re-establish an excluded technology... an ever-widening technical changeover gap would have to be closed."[13]

At the dawn of the aryan era in India there were five conceivable agrarian and social 'technologies', namely, (a) slavery, (b) serfdom, (c) labour-saving innovation, (d) extraction of absolute rent, and (f) caste division. No one has yet demonstrated the superiority of the fifth over the others. Yet by some quirk of history it got introduced in some remote past, and have stayed there till today – in free democratic India. This is an instance of a path-dependent process, "where the past is present in the future".[14] Voters and their leaders in parliamentary democracy may appear perfectly 'free to choose'. Their behaviour, nevertheless, is moulded invariably by events long forgotten and shaped by circumstances in which neither they nor their interests figured. Like the great men of whom Tolstoy writes in *War and Peace*, "[e]very action of theirs, that seems to them act of their own free will, is in an historical sense not free at all, but in bondage to the whole course of previous history..." (Book ix, ch 1).

The initial line of racial demarcation between aryans and non-aryans had long been washed away by the flow of time; the original ground for discrimination had vanished over the millennia. Only its phantom haunts us even today. To break away from this tyranny of history we must listen to Mohandas Karamchand Gandhi: "Down with the monster of caste that masquerades in the guise of Varna".[15]

Despite my disagreement on several points I must say this book is an epic; it is a mirror at which we can reinvent ourselves.

Notes

1 Philosophers, to be sure, draw their concepts from the surrounding conditions [Russell 1945] Over the centuries several systems of thoughts have enriched human consciousness. Western philosophy focuses on the physical universe, while Indian philosophy meditates on the individual's communion with metaphysical, and the Chinese thoughts contemplate on social order [Radhakrishnan 1952.6] I am not sure if this regional variation can be fully explained with reference to hills, rivers, and deserts.

2 Adam Smith (1759, 1776) invokes two sets of human faculties or propensities that make society viable One is man's "original desire to please, and an original aversion to offend his brethren"; it is a centripetal force that holds the society together. This we call fraternalism The other is man's pursuit of his own self-interest, encoded in the famous sentence: "It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest " This is individualism, potentially a centrifugal force On the former Smith (1759 140-41) writes· "Man .ought to regard himself, not as something separated and detached, but as a citizen of the world, a member of the vast commonwealth of nature.. Whatever concerns himself, ought to affect him no more than whatever concerns any other equally important part of this immense system." Smith continues "We ought to view ourselves, not in the light in which our own selfish passions are apt to place us, but in the light in which any other citizen of the world would view us What befalls ourselves we should regard as what befalls our neighbour, or what comes to the same thing, as our neighbour regards what befalls us."

3 Aristole defines 'man' as 'rational animal' Rationality can be given a narrow meaning - formal consistency, or non contradiction in the sense of classical logic. Aristole has three laws of thought: the law of identity (A is A); the law of non-contradiction (nothing can be both A and not-A); and the law of excluded middle (something is either A or non-A), where A stands for anything whatsoever. In formal logic these laws are rendered as truths about propositions respectively. if p, then p; not both p and not-p, and either p or not-p, where p is any proposition. Economists usually reckon rationality as mere conformity with these laws

Rationality has another, far deeper, connotation in which it is identified with 'reason' — reason as a faculty of thinking and exploring the reality. Man is a rational animal in both the senses of rationality, narrow and deeper

4 This is done in the earlier book, Lal (1988:41-45), the argument is carried over to Lal (1998)

5 Let q be the output of the firm, x vaishya labour, x' shudra labour, and a and a' their respective marginal productivities. The production function in Akerlof (1976) is: $q = ax + a'x'$, as shown in Lal (1988:41). The two inputs are perfect substitutes; the isoquant is a straightline. Output can be produced with either x or x' alone. So, the shudras can run away and setup their own colony.

6 Let w and w' be the wages of vaishya and shudra labour respectively By the marginal productivity theory of wages, $a = w$ and $a' = w'$. So, $q = ax + a'x' = wx + w'x'$ This is the standard condition of zero profit in perfect competition After meeting the wage bill the landowner will have nothing to eat

7 See Bikhchandani et al (1992, 1998) and De Vany and Walls (1996).

8 Let t denote tax to meet setup and operating expenses of caste administration. The equation of note 6 above now takes the form. $ax+a'x = wx + w'x' + t$. Rearrangement of terms yields· $x/x' = [(w'-a')+t/x']/(a-w)$, or equivalently, $x'/x = [(a-w)-t/x]/(w'-a')$ The model no longer allows: $a=w$ and $a'=w'$. The point is that as a result the vaishya-shudra labour ratio gets precisely specified by the model Who or what guarantees the maintenance of that proportion in the economy?

9 True, "of the three elements of an agricultural structure... - free land, free peasants, and non working landowners – any two elements but *never all three can exist simultaneously*" [Domar 1970·21, emphasis in the original] Here Domar is talking of Russia in 16th and 17th centuries and of western Europe in the closing days of Roman empire.

Lal invokes Domar to rationalise the Hindu ensnaring of the poor in caste trap. But we must remember that for the aryan gazing over the marshy tropical forests on river Ganga the scene was vastly different. By no means was land free The Domar model does not fit here

10 Caste system is still going strong in India "One recent survey in eastern Uttar Pradesh for instance, finds that as many as two-third of the headmen in 82 surveyed villages belonged to the thakur caste – the traditional landowning upper caste in that region notorious for oppressive subjugation of the lower castes" [Dreze and Sen 1995:105n 106n] "In Uttar Pradesh, for instance, it is still possible to find villages where a powerful landlord has actively opposed the creation of a village school" [Dreze and Sen 1995:107] This phenomenon of landlord resistance to the spread of elementary education has been noted elsewhere in north India.

11 David (1985).

12 Arthur (1994:46)

13 Arthur (1994:46),see also Dreze and Sen (1995.105-107)

14 Dasgupta (1993:142).

15 *Young India*, November 24, 1927.

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A Much Studied State

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Industrialisation in Kerala: Status of Current Research and Future Issues by P M Pillai and N Shantha; Centre for Development Studies, Thiruvananthapuram, 1997; pp 74, Rs 110.

KERALA has always fascinated researchers because of its being an outlier on a chart of commensurate development in economic and social spheres. The relatively low level of economic growth as indicated by low per capita state domestic product has also been accompanied by incidence of considerable levels of poverty and unemployment. The Kerala model of economic development is hence increasingly coming into question in recent years. Further, even when the Kerala model was in vogue, doubts used to be expressed about the adequacy of the development of manufacturing industry in the state of Kerala. The status report on current research on industrialisation in Kerala by Pillai and Shantha hence addresses an issue of great contemporary relevance.

Faithful implementation of pro-poor policies by relatively more enlightened governments in Kerala is often stated to be the main hurdle in the way of Kerala's industrial development. It is argued that sincere implementation of land reforms and minimum wage legislation has resulted in low capital formation and militant trade unionism. All this, it is said, has led to low productivity of labour, low level of capital formation and flight of capital and enterprise away from Kerala particularly in the field of industry. Pillai and Shantha have quoted the results of a number of detailed studies to clearly show that such views have to be taken with not a pinch, but a spoonful of salt.

It is heartening to know from this status report that the rate of savings in Kerala is higher than that for India as a whole. It is also interesting to note that it is more factors relating to the structure of industry and not region-specific factors which are responsible for Kerala's low rate of industrial growth. It is also revealing that the feeling that industrial relations are relatively worse in Kerala compared to the neighbouring states is a mere perception and is not based on facts.

The status report is in fact very well presented. It is split into seven chapters and begins with an introduction giving the *raison d'etre* of the study. After a brief review of historical studies in chapter 2, the survey goes on to discuss studies relating to the traditional, modern and small-scale sectors in chapters 3 to 5. Chapter 6 examines the different organisational structures being tried mainly in the public sector, critically evaluating their relative performance. The concluding chapter is a welcome one and identifies a number of issues for further research in the field. Besides, the usual bibliography, the status report also contains a very useful Appendix giving source material for different types of studies on industrialisation in Kerala. The brief status report has been very painstakingly brought out and contains very few printer's devils.

Research by correspondence has many pitfalls and there are distinct advantages if the researcher is in the area that is being researched. From this point of view, the starting of research centres including the Centre for Development Studies (CDS) away from the capital in the 1970s and 1980s was expected to promote regional balancing of research both in terms of origins of research and also of the region researched. Hence, the fact that the bibliography to this monograph lists a large number of MPhil and PhD dissertations dealing with this issue is very gratifying. The authors deserve congratulations for putting these, many unpublished, together for future reference by researchers.

In the view of many, however, no survey on regional development in India is complete without reference to the seminal work in this regard by Galina Sdasyuk and P Sengupta and published by the Registrar General and Census Commissioner of India (1967), not mentioned in the report here. Works like the one by Seth (1987), dealing exclusively with regional development of industry, which can definitely help one gain sharp insights to Kerala's industrial development also find no place in the report. It is true that the authors have admitted that theirs is not an exhaustive survey of work in the field. But readers cannot be blamed for missing these relevant pieces of research in a status report dealing with the topic.

One also looks in vain for a certain critical assessment of the works cited. The study lists the NCAER Techno-economic Survey of Kerala without any reference to industrial sectors identified for development in Kerala. One would have liked to know the extent to which the predictions of crystal gazing three decades back have turned into reality. The exact point of time till which studies done are taken into account in the status report is not mentioned by the authors. In fact one of the interesting pieces of work in the field is by Sunil Mani (1996). One wondered why this work does not find a place in the status report brought out in 1997, till one finds out that this status report was prepared in early 1996 and actually finds a mention in Sunil Mani's work.

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The Black Economy

Missing Dimension of Macro Policy-Making in India

Arun Kumar

The major macro-economic problems of the 1970s and the 1980s were integrally linked to the growing phenomenon of black income generation. The black economy should, therefore, have been a significant factor in analyses of the economy. Its non-inclusion in analyses resulted in a partial understanding of the Indian economy and often incorrect policy pronouncements. This paper describes the institutional practices of the black economy and incorporates it into the short run macro analysis of the Indian economy.

The need to incorporate the black economy is not simply an empirical matter, but a theoretical necessity. The circular flow of incomes changes with the black economy. Black incomes are first defined. Transfers are not included, but their implications for national incomes, savings and velocity of circulation are presented. The theoretical analysis yields counter intuitive results with regard to tax evasion, investment and savings, subsidies, balance of payments, etc. The empirical trends since the 1970s, say, with regard to unemployment, inflation, the fiscal gap, current account deficit or investments and savings can be better explained using this framework.

I
Introduction

ECONOMIC policy making is based on an analysis of the economy as it is perceived to exist (called 'theory') and the goals that are considered desirable. The analysis unravels interrelationships amongst what are considered to be the key variables and the policy-maker uses this understanding to try and achieve the desired goals Often, in India, policy has not achieved the intended

This failure could be for several reasons of which two important ones are (a) the theory itself may be erroneous or inapplicable to the particular case and (b) implementation may be faulty. Some deal with the latter as an aspect of the former rather than as independent factors. This is an example of differences in perceptions amongst analysts and a pointer to disagreements amongst economists or policy-makers over what is theory. One strand of thinking is that theory must correspond to facts and independent of that it has no existence except as a curiosum.

The relationship between theory and facts is a tortuous one. It involves a process of abstraction which is not unique and on which there is seldom agreement amongst economists from different schools of thought. Often there are difficulties with the data (facts) itself. Many theories are supported by the same limited set of facts This is familiar to Indian economists. One aspect of a weak data base in India is the existence of a substantial black economy. This makes variables unobservable or only partly observable. Consequently, while a theory should be tested with the complete data set, often that has not been possible.

For instance investment and savings in India have a link with the black economy so that they are partly unobservable Hence, the observed data will not show the expected equality between the two In fact, data may be farther distorted by imposing an equality through the category of errors and omissions Further, if the BOP data are strongly influenced by smuggling, under- and over-invoicing and flight of capital and these are not taken into account then the usual three-gap model used for analysis may lead to erroneous policy prescriptions.

If the size of the black economy was insignificant, error due to its existence would be small and analysis could be treated as a first approximation This is legitimate since precision in economics is seldom feasible However, most estimates (including guesses) suggest that since the 1980s, the size of the black economy may be upwards of 20 per cent of the GDP. In other words, it is comparable (not that it is a sector in the National Accounts) to the contribution of agriculture or industry to GDP.

Consider, input-output ratios cannot be measured accurately for industries where the black economy is substantial [see section on the sugar industry in Acharya and associates 1985]. If underestimation of output is widespread even for the organised sector in industry (not to mention the unorganised) and excise duty evasion seems to suggest that, the contribution to GDP may be seriously underestimated and capacity utilisation or factor productivity underestimated.

Economists both from the Left and the Right have largely ignored the existence of the substantial black economy in India.[1] This poses two classes of problems. The first relates to the measurement of key variables and the second to analysis. Secondly, even if the true magnitudes of the black and the white part of the variables could be obtained, there would be problems with analysis. The interrelationships amongst the black and the white variables taken independent of each other may turn out to be different from that assumed for the whole economy. Moreover, there may be cross-relationships between the white and the black components In effect analysis based only on the white part of the data is likely to be erroneous when the black economy is substantial.

The New Economic Policies (NEP) introduced in 1991 mark a major shift in policy paradigm. According to the proponents of these policies, this was necessitated by the failure of policies prevailing till then. However, neither the analysis of the failure of earlier policies nor the NEP take into account the existence of the substantial black economy in India. In other words the shift in policies is based on inadequate analysis. A prerequisite to policy change is an understanding of the nature of the crisis in the Indian economy, why it developed and whether the NEP are the required corrective?[2] As a backdrop to this analysis it is useful to ask, what is the government's case for NEP?

The article presents in Section II the macro-economic case for NEP and its critique on the ground that it ignores the black economy. Section III argues that the black economy is significant in the Indian economy. Section IV presents the modified National Income Identity incorporating the

black economy. Section V uses the modified identity in a short period setting to draw inferences relevant for macro policy-making. These results are used in Section VI to point to certain macro features of the Indian economy which have been otherwise ignored. In Section VII, these results are used to reinterpret the observed macro-economic trends in the Indian economy since the 1970s. Section VIII is used to critically analyse NEP in the expanded framework to assess its likely impact. Finally, in Section IX, certain policy conclusions are drawn.

II
NEP's Macro-Economic Case

The proponents of NEP listed the following economic problems which need correctives. The growing international debt and the BOP crisis. The rising fiscal deficit, the high rate of inflation and slow economic growth. Technological backwardness was identified as a critical factor in the slow down in the rate of growth of the economy and the continuing inability to export enough to meet the rising import bill. The public sector because of its net negative savings was identified as the cause of the growing fiscal deficit. NEP are supposed to deal with these and other related problems [see GOI 1993].

The opening up of the economy is supposed to make it more efficient. Inflow of foreign capital is expected to upgrade technology and boost exports. Privatisation of the public sector is taken to make it efficient and reduce the drain on the exchequer. Cuts in expenditures like subsidies and transfers to the states were suggested to reduce the fiscal deficit which in turn is supposed to lower the rate of inflation and eliminate the BOP crisis. The following National Income Identity (model) consisting of the three gaps in the accounts of the private sector, the public sector and the external sector forms the basis of these arguments.[3]

$I - S = M - X$ where I stands for Investments, S for Savings and X and M for Exports and Imports, respectively, of goods and services.

$M - X$ = Inflow of foreign capital, or the supply of foreign savings. The above identity with two gaps can be rewritten in the following form:

$$O = (I - S)_{private} + (I - S)_{public} + (X - M) \qquad ...(1)$$

It has been argued that for the Indian economy, the gaps in the private and the external accounts have been negative while that in the public account (the fiscal deficit) positive. In other words, the fiscal deficit is financed by the private sector and the external sector. The inflow of external resources, year after year, resulted in the rising external debt and finally to difficulties on BOP account. The inability of the national private sector to finance the public sector is supposed to result in excess demand and inflation. Following this argument, a reduction in the fiscal deficit would reduce demand and help cure both inflation and the BOP crisis. Devaluation was recommended to reduce the leakage of demand from the national economy and to generate an export surplus to overcome the problem of rising debt.

In the longer run, the NEP hope to stimulate private savings, investment and exports through concessions to profit earners. The opening up of the economy is supposed to enable inflow of foreign capital and associated technology. Removal of rigidities in the system (freeing of prices, exit policy, etc) are supposed to enable free movements of capital and its more efficient use. While overall demand is sought to be curbed, it is assumed that growth will follow supply side responses.

Critique of NEP's Marco-economic Formulation

Such an analysis suffers from five problems. Firstly, it relies on use of official data which are based predominantly on the white economy. Secondly, by itself eq 1 does not tell why the causation will run from the fiscal gap to the other two. Thirdly, even if the causation is accepted, in a given situation, what will be the split between the other two gaps, i e, the impact on inflation or the BOP? Fourthly, the time period involved in the (ex-ante) analysis is never clearly specified. Lastly, there are important analytical linkages between the three gaps that are missed out when only the white economy is taken into account.

Take the first point. The use of data from the white economy alone in eq 1 is erroneous since the equation refers to the actual values of each of the variables consisting of the white plus the black magnitudes. Hence the equation cannot be expected to be fulfilled with data from some undefined portion of each of the variables. Since the white portion of each of the variables is a different proportion of the total value, it is not even that the former can act as a proxy for the total.[4] As shown in Appendix 3, when the actual magnitudes are used, the sign of the external gap turns out to be different from the one assumed above. This is due to a leakage of savings from the Indian economy in the form of flight of capital and smuggling in of gold, sliver and other items.

Secondly, eq 1 is inadequate from the point of view of causation [see Bacha 1990]. It is unclear (a) why output and price changes do not close the $I - S$ gap internally and (b) whether $M - X$ leads to this gap or its result? Answers to these questions are essential for policy formulation. Further, any concessions to capital for investments and exports (as suggested by NEP) raise the share of profits in national income (if they are to act as incentives). The implication of this for output and price adjustment cannot be studied without explicitly introducing distribution in the national income identity (eq 1).

Thirdly, it is clear from eq 1 that the impact of the fiscal deficit on the external gap is dependent on the degree of openness of the economy. In a closed economy, no matter what the fiscal deficit is, the external gap would be zero. As the economy opens out, the fiscal deficit would have a larger impact on this gap but its extent is unclear.

Fourthly, often, the variables in eq 1 are rewritten as functions of some other variables [Bacha 1990] – like consumption and imports as functions of income. This implies an implicit use of more than one time period but then investment becomes a more complex variable dependent on expectations and time lags. This needs to be clearly spelt out to make the ex-ante analysis needed for policy purposes feasible.

Lastly, each of the three gaps are affected by the others because of the generation of black incomes (see Appendix 2). For instance, the true investment in public sector is less than the budgetary magnitude due to the siphoning off of funds. This shows itself as the savings of the private sector both inside India and outside. Savings of the public sector are also affected since profits of the public sector are skimmed off during sales and purchases of inputs. These once again accrue as the savings of the private sector (households or firms). In effect, the public sector gap based on the white data turns out to be larger than it actually is because of the transfer of savings to the private sector. In reality, public sector's investments are smaller while its savings are higher by the amount of leakages. Transfer of savings from the public to the private sector both within and outside India has been going on.[5]

If the above analysis is correct then it is clear that the national income identity, eq 1, has to be rewritten (a) incorporating the black economy explicitly to bring out the interrelationships amongst the various variables, (b) using only the short period for analysis, (c) incorporating causation, (d) explicitly bringing in income

distribution, and (e) using the true magnitudes in the modified national income identity.

III
Does Black Economy Matter?

The Magnitudes

The size of the black economy, usually reported as percentage of the reported GDP at market prices, is substantial, whichever method of measurement is used. Acharya and associates (1985) estimated the size of the black economy (not counting smuggling and illegal activities) to be 20 per cent of the white economy for 1980-81. Gupta (1992) pointing to errors in this estimate corrected it to 42 per cent of GDP for 1980-81 and 51 per cent for 1987-88. The monetarist estimates yielded a figure of 47 per cent for 1978-79.

Kumar (1994) suggested that estimates from different methods are not comparable because of the various definitional and methodological inconsistencies and problems in these estimates. Most importantly, due to lack of definitional clarity, there is double counting and transfers and capital gains are clubbed together with factor incomes. Correcting for these infirmities, Kumar and Sen (1993) assumed in their calculations a figure of 30 per cent for 1990-91.[6]

This implies that the black economy which is concentrated in the tertiary sector [Kumar 1988b] was by 1990-91 larger than the primary or the secondary sectors. If so, can it be ignored in any macro analysis of the Indian economy? For instance, in the analysis of output of goods and services or demand (specially consumption) patterns.

Can one treat the white economy as a proxy for the total economy, consisting of the black and the white components? This would be possible only if the various ratios remain unchanged. But on available indications (Appendix 3) this would be an incorrect assumption so that the black economy needs to be explicitly introduced in the analysis. All this has major implications for analysis and policy.[7]

With regard to the external sector also, the magnitudes of the black economy in relation to the official data are very significant. For instance, while official exports in 1990-91 were $18 bn, 170 tonnes of gold valued at Rs 6,000 crore ($2.2 bn) at the then current domestic prices was smuggled in. In 1990-91, there was an estimated annual flight of capital of $5 billion and smuggling of other items (silver, electronics goods and synthetics) of at least another $1.5 bn. This is financed through two sources. Firstly, the havala markets which short circuit the accrual of foreign exchange to government reserves. Some of these items are remittances by Non-Resident Indians and under- and over-invoicing of exports and imports. Secondly, the profits from drug trafficking.

Further, savings held abroad (in foreign exchange) by Indians were said to be at least $100 bn. Interest earned on this would have been at least $6 bn (annually). Adding up all this, the country lost in 1990-91 foreign exchange of at least $15 bn, not counting drug traffic earnings. This amount would be equal to 80 per cent of the official exports. If this loss had not occurred, in 1990-91, the country would have had a current account surplus and not a deficit of $9.7 bn.

This is not all, the black economy raises the import intensity of the economy and causes legal imports to rise. As such, the country's BOP cannot be discussed without taking into account the black economy and the leakages from it. Finally, the flight of capital, smuggling in of gold and other items are an aspect of the black savings in the national economy so that no meaningful discussion of the savings-investment behaviour and the associated multiplier, etc, is possible without taking into account the black economy in India.

National Income Accounts and Black Economy

Analysts ignore the impact of the black economy on the macro-economy either because they have not developed the required analytical framework and/or because they argue that the data are not available (or are unreliable). Apart from the fact that if the black economy is as large as estimated by some, and, therefore, analysis not taking the black economy into account is erroneous, analysts are happy to use the data on the white economy

Appendix 1. Estimates of Elements of Black Investments and Savings
(As per cent of white GDP at market prices)

Given the definition of black incomes used in this paper, only factor incomes are considered. As such, investments in real estate, transactions in the secondary share markets, capital gains, bribes, etc, are not considered here. As far as possible, estimates are given for 1990-91

(1) Siphoning out of public sector savings through cuts on sales and purchases and over-invoicing of investments 6 per cent of value Small projects may have 15 per cent leakage and the large ones 6 per cent Additional activities, like, bank frauds, financial irregularities, electricity leakages need to be estimated. This is like a minimum estimate.	5.3 per cent
(2) Under-invoiced inventories at 20 per cent of increase in inventories	0.3 per cent
(3) Over-invoiced plant and equipment in the private sector Assume that it equals the capital required to be put in by the private owners of the companies, i e, 16.5 per cent of the capital declared to have been invested	0.8 per cent
(4) Smuggling in of gold, silver and gems and jewellery	1.9 per cent
(5) Flight of capital through over- and under-invoicing of exports and imports	1.6 per cent
(6) Transfer of funds through the havala route.	1.0 per cent
(7) Profits on drug traffic accruing to Indians	3.7 per cent

Appendix 2: Actual Investment, Savings, Export and Import Definition

Actual $I = (I_{priv} + I_{pub})_{white} + (I_{priv} + I_{pub})_{black}$
Actual $S = (S_{priv} + S_{pub})_{white} + (S_{priv} + S_{pub})_{black}$
Actual $X = X_{white} + X_{black}$
Actual $M = M_{white} + M_{black}$

The black components above may be written in terms of their components as.

$I_{private, black}$ = incremental holding of gold, silver, gems and jewellery and balances in foreign accounts – over-invoicing of investment + under-invoiced inventories (including holding of commodities for speculation) + undeclared investments in the formal and informal sectors (including, for speculation) + increase in cash holding + investment in illegal activities.

$I_{public, black}$ = over-invoicing of investments

$S_{private, black}$ = Black savings propensity ∞ [over invoicing of private investments + over-invoicing of public investments + over-invoicing of purchase of material (including, wages) + under-invoicing of sale price + value of undeclared production (legal and illegal) + cuts on contracts of public sector] + black savings of informal sector – benami investments in banks and post offices

$S_{public, black}$ = Cuts on contracts for sales and purchase of goods and services

X_{black} = Under-invoiced exports + export of drugs + under-invoicing of tourist expenditures + savings of Indian labour working abroad retained there through the havala route + returns on assets held abroad.

M_{black} = Under-invoiced imports – Over-invoiced imports + smuggling + Indians undeclared expenditure abroad on education, health and tourism

Gold, silver and gems and jewellery are included in I since they imply equal investments abroad through leakage.

whose statistical basis is often no more firm than that relating to the black economy.

Data from the unorganised sectors of the economy have a weak basis [GOI 1989]. This is true both for the manufacturing sector and the tertiary sector. Often these are only crude ratios of the organised sector activity or based on inadequate benchmark estimates which are then blown up by equally inadequate indicators. The finance minister has indicated that excise duty evasion maybe of the order of 40 per cent [Budget Speech 1993]. This implies that even for the organised manufacturing sector, the official production data have a large margin of error. After all, data reported to the excise department are the data provided to the income tax department and the Annual Survey of Industries (ASI) and these are the data used in the National Income Accounts.[8]

If the degree of uncertainty is as high as 40 per cent of the output for the sector whose data are supposed to be the most reliable than in the case of the unorganised sectors (with substantial self-employment) and specially in the tertiary sector the degree of uncertainty is likely to be much more than 40 per cent.

Similarly, the implications of the previous section for the estimates of savings and investments are serious. They are leaking out of the country. Some of these are reflected in gold holdings in India, flight of capital and accounts held abroad by Indian nationals. None of these enter the national income accounts.

This opens the possibility that capital inflows from abroad are smaller that the outflow of savings from the black economy (Appendix 3).[9] Investments by foreigners in India are small but investments abroad by Indians based on the flight of capital and accruals from smuggling activities have been substantial. Thus while M – X based on official data may be positive, reflecting a net inflow of foreign capital, there is another term $(I - S)_{\text{foreign black}}$ from the Indian private sector which reflects a drain of capital. In effect, the white accounts have been misleading with respect to the savings behaviour of the economy.

Given that the margins of error in the various components of GDP may be large, how much faith should the analyst have on the GDP data from the national accounts? It is surprising that though the degree of uncertainty is large in each of the components of the GDP, yet, the sum of these components is used as if it is precise. Further, even though it is the existence of the substantial black economy which creates the errors in the data on the white economy, few analysts make the attempt to rectify this defect by incorporating the black economy into their analysis.

In brief, two points emerge regarding the use of data from the black economy. First, the degree of uncertainty in the data for the black economy is certainly higher but that is a quantitative matter and cannot be the reason for excluding the black economy from theoretical analysis. For instance, the issue is not only of the missed savings from the black incomes but of their direction of flow. Secondly, the uncertainty in the data for the white economy relates in a large measure to the existence of the black economy.

IV
Black Economy and National Income Identity

The arguments presented till now suggest that the black economy needs to be incorporated into the analysis. To do so, each of the terms in eq 1 need to be split up into two parts – a black and a white one. For instance, $(I - S)_{\text{private}}$ should be two terms; one pertaining to the white economy and the other to the black economy. The black economy part would consist of three savings terms; one from black savings from private activity, second from the public sector and third the leakage of savings from the national economy.[10] The I term also has three components – white, black and foreign investments (Appendix 2).

However, the modification of eq 1 to incorporate the black economy by splitting up the I and the S terms is not only complicated but inadequate from the point of view of policy and income distributional consequences. The form of national income identity used by Kalecki (1971) and as developed further in Kumar (1988a) is more suitable from both these points of view. The reason is that black incomes are property incomes, that is, factor incomes profits (gross) from which other property incomes derive. Kalecki uses national income identity to focus on the role of gross profits. He also highlights causation and the role of government deficits and the external sector in market creation. The identity given in Kumar (1988a) specifically enables analysis of policy. It is used here as the starting point to introduce the black economy in the framework and is written thus:

$$(P_p - T_p) + I = I_p + C_c + [\text{Budget Deficit} + B] + [\text{Current Account Surplus } (X - M)] \qquad \text{...(2)}$$

where p_p are private profits, T_p tax on these profits, I the interest payments from the budget to the propertied, I_p the private investments, C_c the capitalist consumption, B the *net* borrowing by the government, X the exports and M the imports. Clearly, eq 2 refers to the true economy consisting of the white and the black economies. The identity would not hold for just the white or the black parts separately. While T_p, B and I have only one component, each of the other variables of eq 2 has two parts. These need to be introduced explicitly in the identity to facilitate the analysis of an economy with a black component.

Undeclared Profits

Gross profits consist of the white and the black profits. White profits are the ones declared for tax purposes and T_p are the taxes paid out of them. No taxes are paid out of black gross profits since they

Appendix 3. Table of Corrected Values of Key Macro Variables (1990-91)
(Figures in Rs crore unless stated otherwise)

	White Comp	Black Comp	Actual Value
(1) GDP at market prices	5,35,000	1,60,000	6,95,000
(2) Primary	31 per cent	5 per cent	25 per cent
(3) Secondary	25 per cent	25 per cent	25 per cent
(4) Tertiary	44 per cent	70 per cent	50 per cent
(5) Gross domestic savings	24 per cent	50 per cent	30 per cent
(6) Aggregate investments	27.5 per cent	17 per cent	25 per cent
(7) Incremental K/O ratio	5.0	1.9	4.4
(8) Exports (goods and services)	41,000	55,000	96,000
(9) Imports (")	49,000	10,000	59,000
(10) Tax revenue foregone		1,00,000	

Notes. (1) Figures presented under black component are indicative based on scattered evidence and a broad understanding of the black economy.
(2) The per cent figures under actual value are the weighted average of the black and the white components.
Item 10: refers to both direct and indirect taxes assuming that incomes had been correctly declared.
Item 7. The rate of growth of black economy is taken to be 9 per cent and of the white economy 5.5 per cent. The increase in output of the black economy is not only due to investments in the black economy but also due to the misdeclared white output. This simultaneously raises the growth of the black economy and lowers that of the white economy.

are undeclared These are generated in several ways

First, by inflating costs in the books of accounts through showing higher expenditures For instance, personal expenditures are shown as business expenses Over-invoicing of purchases and falsification of employment data (muster rolls) are also used Second, gross revenue is understated in the accounts through under invoicing sales by misdeclaring the price or output or both The output may either not be shown or declared as damaged or shown as waste The actual cost of production of this undeclared output is loaded on to the declared output or turnover Third, there are illegal activities where the entire output is black For instance, in the case of smuggling prostitution, drugs, gambling, etc From these black activities a part of the profits accrue outside India

Out of the black gross profits undeclared interests and rent are also paid In partnership firms, undeclared dividend is also paid out of these profits Since profit interest rent and dividend are referred to as property incomes one can argue that black incomes *are property incomes* [Kaldor 1956 and Kumar 1988b] In completely illegal activities there is no question of declaring wages so that these also constitute black incomes However in the rest of the economy wages are inflated so that there would be a tendency for the under reporting of wages to cancel out Finally most wages even the illegal ones would tend to fall below the taxable limit so would not have been required to be reported hence are not black Anyhow as a first approximation it may be assumed that in the economy as a whole wages are not under reported

Black incomes may be defined as *factor incomes property incomes which should be reported to the tax authorities but are not* Capital gains and bribes are mere transfer activities and not factor incomes so are not counted as black incomes They do cause redistribution of incomes and effect consumption etc

With these considerations in mind in eq 2 above P_p needs to be separated into two parts white private gross profits P_{wp} and black gross profits P_{bp} Since the share of the black economy has been rising and the black incomes constitute gross profits, the share of gross black profits in GDP must be rising A part of these gross black profits accrue outside the economy and represent a leakage of savings from the national economy Data indicate that in the 1970s and the 1980s the share of white property incomes itself was rising [Kumar 1988b] It can then be concluded that the share of total gross profits in the national income must have risen during this period

Capitalist Consumption and Black Incomes

Capitalist consumption, C_c is paid for by both black and white incomes It is generally believed that consumption propensity out of the former is larger than out of the latter and also more import-intensive However the consumption propensity out of black would be much smaller than that of say the wage earners [11]

The savings propensity out of black incomes is also smaller than that of the property earners as a class because, as pointed out above there are transfer activities associated with them The transfers result in some incomes being redistributed to those with smaller incomes However most of the transfers are also highly concentrated so would have large savings propensity In other words an increase in the share of black incomes would cause the savings propensity to rise in spite of an increase in capitalist consumption [Kumar 1995]

Expenditures from black incomes are on items like consumer durables housing entertainment children's education abroad and visits abroad What is spent abroad is clearly import intensive but there is also an increased demand for imported goods in the national economy Earlier it led to increased smuggling activity to fulfill demand for foreign goods Post 1991 since import restrictions have been fewer smuggling may have declined but legal imports have expanded faster than the nominal GDP Indirectly also imports rise say to meet an increased demand for energy as luxury consumption rises

The goods consumed using black incomes do not necessarily originate in the black economy White incomes may be used to purchase goods or services produced in the black economy Hence no useful purpose is served in writing the black and the white components separately It is enough to recognise that in eq 2 above C_c would have a value larger than that implied by the white economy alone Expenditure out of black incomes may have a shorter time lag than out of white incomes but since in eq 2 there is only one period the short period, this has to be ignored in the first approximation

Black Investments

Private investments, I_p need to be split up between a black and a white component I_{pb} and I_{pw} It is not that the black component comes necessarily out of black incomes and the white one from the white incomes only For instance, savings from black incomes go into bank and post office accounts which channel them into white investments While I_{pw} is reasonably well known and presented in the NAS, the other term needs to be modelled I_{pb} may be classified into seven broad categories

(1) Under invoiced inventories (including cash holdings)

(2) Over-invoiced and under invoiced plant and equipment

(3) Informal sector activities including trade, films, production etc

(4) Illegal holding of precious metals gems and jewellery

(5) Flight of capital for investments abroad

(6) Transfer activities (like secondary share market and real estate) and buying of influence (bribes for illegal work)

(7) Illegal activities (like smuggling drugs, prostitution and crime)

Flows into real estate (not construction) secondary share market etc where assets simply change hands constitute transfers and do not result in production They result in large transactions but little value addition (brokerage) and cause the transactions velocity of money to rise but the income velocity hardly changes The multiplier associated with these activities is indeed small

To the extent that some of these transfers may be to those who have small incomes say widows and small farmers they lead to an increase in consumption lowering the savings propensity in the economy However the bulk of these transfers are to other propertied who then make a decision to invest the proceeds This holds for both the black and the white components of these transfers As long as these investments circulate in transfer activities like say from one property to another, the savings remain immobilised lowering the income velocity of money At some stage they may link up with productive investments but until then they lower the profile of investments and increase liquidity

Given the overall macro black balances and practices in the black economy black savings (including the ones transferred) will flow into each of the remaining six black investment channels Some of these channels result in leakage of savings from the economy and require conversion into foreign exchange either through exports or through cornering private capital inflows (through havala) In the case of the havala transaction rupee proceeds are paid within the economy and the transfer continues or consumption rises while savings leak out abroad

Investment in precious metals, gems and jewellery is also like a transfer activity. A leakage of savings takes place when precious metals and gems are brought into the country or when there is flight of capital. The country also loses foreign exchange in both the cases and affects the BOP. However, there is a minor difference between the two cases. When precious metals or gems which are smuggled in are held, assets are purchased in the economy but savings are lost to the economy. In the case of flight of capital, the national economy loses savings but Indians still own the savings abroad. In the two cases, even though the same havala market is used, in the former case, the chain of transactions is longer due to the transfer of goods (which are simultaneously assets) involved.

In effect, the transfer activities of the black economy either lead to larger consumption or savings leak out of the economy or they are invested in some white or other black activity. Investment in other black activities gets counted under those heads. The tendency of investing black savings in the white economy cannot be large (otherwise they need not have been generated as black). As already argued, consumption out of these incomes would also not be large so that the major avenue left would be leakage from the national economy. To conclude, black savings when invested in activities which are not counted in the national income account lead to transfers from one black investment to another till they largely leak out of the national economy. The leakage of savings corresponding to these transfers requires surplus on the current account so that foreign exchange is earned to enable the leakages to occur. However, these leakages involve illegal activities.

Increase in under-invoiced inventories is undeclared investment, that is, investment through the black channel. Increase in cash holdings is likely to be a small part of the total. On the contrary over-invoiced plant and equipment implies a lower real investment; in fact, negative black investments. Under-invoiced investments, like, undeclared investment in construction, imply that the actual investments are larger by this amount. An important component of this investment is the flow of incomes from illegal activities (like drugs). Finally, undeclared investments and investment of black savings in the informal sector implies that I_{pw} rises as unfulfilled projects get funded and working capital made available. Investments in illegal activities also raise the level of investment in the economy.

In brief, only a part of what are understood as black investments constitutes real investments in the national economy. It is this component which raises the level of output through the associated multiplier.[12] The total investment in the true economy is then larger both because the size of the economy is larger and also because of the higher savings propensity out of black incomes. However, it is smaller than what it could be because of the transfer activities, illegal activities and the leakage of savings from the national economy.

The picture is akin to the distinction between productive and unproductive investment referred to in Bhaduri (1983) in the context of agriculture. Here the distinction is that the white investments have a larger multiplier associated with them as compared to the black investments. A part of output from white investments is not declared and generated black incomes while black investments mostly generate black incomes but due to leakages, have a small multiplier.

Budget Deficit and Public Sector

The impact of the black economy on the budget deficit is both because expenditures are inflated and revenues are less. For instance, when contracts are awarded, margins must cover pay-off to politicians and bureaucrats and super profits. Fictitious expenditures are claimed. Revenues are less because tax collections are less than what they could have been. Even non-tax revenues are affected. For instance, the profits of the public sector are lower since they are siphoned out. As a result, their contribution to Internal and Extra Budgetary Resources to finance the public investments programme get reduced and their dividend to the government reduced.

Large amounts of subsidies are also siphoned off by propertied through misappropriation. Like traders diverting grain from public distribution or FCI paying more for poor quality grain. Subsidised public services cornered by those in power are also transfers to the propertied. Expenditures on subsidies get inflated or misappropriated.

The rapid rise in the interest burden on the budget is a result of the black economy. White liquidity is preferred over black liquidity due to its greater flexibility of use and lower risk. Consequently, the return on black investments have to be higher than on white investments. Further, the rate of return available on black activities is higher by the tax saved so that the post-tax rates of return on black activities turn out to be much higher than on white activities. Amongst the white activities, the interest rates offered by the government provide the floor rate of return for the economy as a whole.

With an increasing share of the black economy, a disequilibrium arises. The white rates of return tend to rise as demand for funds from the state grows and this leads to a sympathetic rise in the black rates of return. To pre-empt funds from flowing into the black economy so that the state can fulfill its requirements, the state has had to offer higher returns on funds

Appendix 4 Increase in Costs of Production in Organised Industry

The black economy enhances three major items of costs for industry, namely, transactions costs, indirect taxes and interest costs

(1) Transactions costs
   (a) Purchased input (material and labour) costs increase due to bribes and over-invoicing.
   (b) Capital costs rise due to delays, bribes and over-invoicing.
   (c) Due to inferior quality of inputs and extra processing cost.
   (d) Higher working capital requirements due to holding of larger inventories due to uncertainty and delays

(2) Indirect taxes.
   (a) Higher rates to counter inadequate direct tax collections
   (b) Effective rates due to cascading effects.

(3) Interest costs.
   (a) Due to borrowings by industry from informal markets.
   (b) Due to government's (and public sector's) growing need for borrowed funds and increases in interest rates offered by it, raising the floor of interest rates.

(1) The increase in the transactions costs would be of the order of 40 per cent, roughly the size of the black economy

(2) Assuming revenue neutrality, that is, if direct taxes were paid, how much would indirect taxes be less by (an exercise carried out in Kumar and Sen (1993)). On this basis, indirect taxes add 25 per cent to costs

(3) Assuming that, if direct tax collection was adequate, government's borrowing requirements would have been at the level in the 1970s and interest rates would have been close to the LIBOR (say 10 per cent) and assuming informal market rates to be at least 24 per cent and the formal market rates to be 18 per cent, the interest cost would be higher by 10 per cent.

In effect, the cost of production of organised industry in India in 1990-91 was higher by around 75 per cent due to the existence of the black economy. These extra costs are a result of the waste involved in production and the extra profits accruing to the propertied classes.

it borrows.[13] This raises the floor of rates of return available in the economy. The effect is a rising share of profits in the national income and a profit inflation. It also implies that over time, the cost of borrowing to the state and the interest burden(I) rise.

The state is forced to pre-empt banking resources through a rising SLR and imposing social sector obligations on the banks. To maintain a semblance of profitability of the banking sector, the government had to allow banks to charge a higher rate of interest from non-priority clients and this further raised the floor rates.

The actual budgetary magnitudes incorporate the effect of the black economy, hence no separate term need to be introduced in eq 2. The interest burden I rises with a time lag. The effect of the black economy on the budget is that instead of showing a primary fiscal surplus there is a deficit. Profits of the private sector rise by the amount of transfers from the public sector and swell undeclared profits. As shown below no rise in demand is associated with such transfers even though the fiscal deficit rises. (However, prices may rise due to increase in costs.)

Black Economy and the External Sector

As pointed out above, due to smuggling in of gold, silver, gems, electronic goods, etc, and due to flight of capital abroad, the national economy loses foreign exchange. The foreign exchange for these activities is raised through (a) the havala market which in turn taps Indians abroad wanting to send remittances back to India and (b) exporters and importers indulging in under- and over-invoicing, respectively. Drug smugglers whose profits accrue abroad (estimated to be Rs 20,000 crore in 1990-91) also use this channel to send some of their money back to the country.

Out of the proceeds accruing to Indian nationals outside, a part is invested there. This is an unavoidable loss of savings and should not be counted as part of the black economy savings. Another part, which Indian nationals want to send to their families or business in India comes through the havala channel. Those needing funds outside the country take them there while paying from their rupee funds in India those for whom the transfers were meant. This involves leakage of savings of those sending their funds outside. Those receiving funds in India may save a part of it and consume the rest. This is no different from what such individuals would have done, had they received the funds through the official channels, hence leaving the savings-investment pattern of the black economy unchanged and as captured in the remaining six channels.

The third part of these accruals outside may be used to smuggle in goods. Precious metals and gems are largely smuggled in to be held as assets, they represent a transfer of savings out of the economy and are like a capital account transaction. Smuggling of other goods increases consumption in the economy at the expense of savings.

Indian nationals holding assets abroad, purchased from savings siphoned out of India, earn a return on them This should have accrued to the Indian economy through invisibles These proceeds are lost to the national economy and result in lower official remittances and a larger official current account deficit.

In brief, there are four kinds of effects on the national economy due to the black transactions in the external sector. First, the implication for reserves and money supply. Remittances which do not flow into the country through official channels imply that foreign exchange does not accrue to the RBI and corresponding funds are not released in the economy. Secondly, for national savings. Not only is the flow of savings of Indians abroad reduced but savings in the national economy either leak out through this route or are lowered through increased consumption.

Thirdly, for the current account. Exports are larger by the extent of under-invoicing while imports are larger by the extent of smuggling and under-invoicing but smaller by the extent of over-invoicing. In the net, the true deficit in the trade account (not counting drug traffic) is lower than indicated by official data and current account of the true economy is in surplus (Appendix 3). Finally, private holdings of assets abroad or gold held in the country does not help the official reserves or the BOP situation.

Given the above, in eq 2, the true X – M term needs to be split up into its black and white components with the latter reflecting the official data and the former the remaining part. The economy's BOP situation continues to be reflected by the official data with its growing dependence on inflow of capital (FDI, FII) through official channels

V
National Income Identity with a Black Economy Component

In the light of the above discussion, the national income identity, as given in eq 2 above, needs to be modified as follows:

$$(P_{pw} - T_p) + P_{pb} + I = I_{pw} + I_{pb} + C_e + [\text{Budget Deficit} + B] + (X - M)_w + (X - M)_b \quad ...3$$

Fiscal Deficit = [Budget Deficit + B] is given by the budget.

BOP implications are given by the white component of (X – M) but the capital flows are given by the true (X – M).

This identity can now be used to analyse the implications of policy for output, prices, BOP, fiscal deficit and other variables. Incomes and expenditures are a part of a circular flow and the presence of the black economy alters the pattern of flows as compared to what would prevail if there was only a white economy, thus, changing the determination of prices and output in the economy.

Direction of Causation

In eq 2 and the identity given in Kumar (1988a) the causation runs as in Keynesian models from the right to the left. The elements on the RHS can be taken to be given at the start of the short period.[14] The budget deficit is the resultant of various expenditure and revenue decisions and not independently given – it is fixed by the budget, ex-ante. Distribution in the model is also assumed given for the short period so that once the level of gross profits is obtained, the level of output is determined. If there is no capacity constraint in the economy, any change in output would be in real terms otherwise in nominal terms.

The above model with the black sector (eq 3) is also assumed to work in the same way. The assumption is that the share of black economy in the total economy (which is rising) is fixed at the start of the period. Thus, distribution remains unchanged during the period. The budget deficit gets fixed at the start of the period by the government's budget and the black economy. Black investments and consumption are taken to be determined in the same way as are their white counterparts [Kalecki 1971] only the parameters differ In effect, *the causation can still be assumed to run from the right to the left* with the elements on the RHS given at the start of the short period. Using comparative statistics, the following results can be obtained if the share of the black economy is allowed to rise and/or fiscal policies changed.

Tax Evasion and Budget

(1) Evasion of direct taxes means an increase in P_{pb} at the expense of P_{pw} and a decline in T_p so the left hand side (LHS) becomes larger. The right hand side (RHS) also increases by the same amount due to a rise in the budget deficit. Hence even though the disposable income of the

capitalists rises due to an increase in undeclared profits and reduced tax payments, there is no effect on output since gross profits remain unchanged. However, if the government keeps the deficit unchanged by reducing expenditures, the RHS will be unchanged. In this situation, the LHS also has to remain unchanged so that the gross profits will have to decrease by the amount of tax evasion. Decline in gross proifts will be through a reduction in production. Hence, *ceteris paribus, increase in direct tax evasion will cause production to fall.*

When indirect taxes are evaded, direct taxes are also evaded on the additional income. Black profits rise by the amount of value of output on which indirect taxes are evaded so that the LHS of eq 3 rises. On the RHS, the budget deficit rises by the amount of direct and indirect tax evaded, i e, by an amount smaller than the LHS. Hence gross profits have to fall through a decrease in production. Firms paying less of indirect taxes could be expected to lower prices but this is unlikely since the object of evasion is increased profits and not lower prices. If the budget deficit is held unchanged, through reduction in expenditures, the drop in output would be even sharper. In brief, *ceteris paribus, an increase in indirect tax evasion causes a drop in output.*

If, in the face of tax evasion (direct or indirect), indirect taxes are raised to keep the budget deficit unchanged, RHS remains unchanged and so will gross profits and output. However, since indirect taxes are prime costs in production, prices would tend to rise. Clearly, the economy faces stagflation. *Hence, an increase in tax evasion is stagflationary even if accompanied by a rising fiscal deficit or a rising share of indirect taxes to prevent the budget deficit from rising.*

(2) The fiscal deficit is the sum of the budget deficit and net borrowings (B). *B is only a means of financing the fiscal deficit (and does not change its size) so that there is no impact on gross profits or the output* in the economy. However, if government expenditures increase in spite of the loss of revenue due to tax evasion, the fiscal deficit rises and creates additional markets. On the LHS the gross profits P_{pw} rise due to expansion of output.

However, if in the effort to raise B, interest rates rise, total interest payments I rise in subsequent periods. *Ceteris paribus,* the budget deficit will tend to rise by the same amount on the LHS, raising the fiscal deficit. Thus, in eq 3 both sides remain balanced and there would be no impact on gross profits or output.

If government expenditure increases while tax revenue is held in check by the black economy, the fiscal deficit rises and has to be financed by a rising B and with a time lag an increase in I which further raises the fiscal deficit. This raises the spectre of debt trap which eventually forces a cut back in the rate of growth of expenditures to keep the fiscal deficit in check.

(3) The black incomes generated through the public sector lead to an increase in the fiscal deficit on the RHS and also an equal increase on the LHS in the P_{pb}. This is a pure transfer of profits from the public sector to the private. No expansion of the market occurs. However, if the government cuts other expenditures (like, investments) to check the rising deficit, then P_p would fall by a like amount and output falls.

Subsidies from the budget raise the budget deficit (RHS) and lower prices. If they accrue to the propertied classes then the level of profits (LHS) rise and output is unaffected. For instance, this is the case with export subsidies, fertiliser subsidy, subsidised services for the well off and the subsidies meant for the poor but skimmed off by the propertied. If subsidies go to labour, the fiscal deficit (RHS) rises without a change in P_p (LHS). Since the workers consume all of this income, the level of output increases and so do P_p (LHS) (bringing eq 3 into balance).

As public sector profits are skimmed off, its balance sheet profitability falls while the fiscal deficit and black profits rise (while output remains unchanged, as argued above). To keep the fiscal deficit in check, government has cut back budgetary support to the public sector and forced it to borrow outside the budget. This device while lowering the government's fiscal deficit does not reduce the entire public sector's deficit. The costs to the public sector rise due to higher interest charges. Consequently, either administered prices have to be raised to cover higher costs or the public sector surpluses decline and the fiscal deficit rises.

The above discussion leads to the following propositions.[15] These are in a ceteris paribus sense holding other variables unchanged.

(1) An increase in the level of budget deficit (holding evasion unchanged) leads to an increase in the level of fiscal deficit and causes an increase in P_p and the level of nominal output.
(2) As evasion of taxex (direct or indirect) rises, P_{pb} increase. Evasion of indirect taxes also results in dodging of direct taxes. With tax evasion, the level of output falls while prices remain unchanged. Government's capacity to increase demand in the economy, through an increase in the fiscal deficit, is truncated.
(3) In response to tax evasion, if direct tax rates are reduced while indirect tax rates are raised (to keep the budget deficit unchanged), resulting in a fall both in the amount and the share of direct taxes in total tax collections, the P_p and the level of output fall while prices rise. In other words, the situation becomes stagflationary.
(4) Increased net borrowings to finance the fiscal deficit do not cause a change in the level of P_p or output. They enable expenditures to rise and the fiscal deficit to increase. However, subsequently, the revenue deficit and the interest burden on the budget rise. An increase in the fiscal deficit due to an increase in interest payment does not lead to any rise in the level of output. Thus, it is the primary fiscal deficit (fiscal deficit – interest payment) which generates demand. Rising borrowings pose the threat of a debt trap and, therefore, serve a limited role in raising demand in the economy and beyond a point become counterproductive.
(5) Subsidies raise the fiscal deficit but lower specific prices. If they accrue to the propertied, the level of output does not change. If they accrue to the wage earners, output rises.
(6) Transfers from the public sector to the private sector on account of corruption increase the fiscal deficit and the gross black profits without leading to output increases. This may result in increased borrowing by the public sector and an increase in the interest burden and a subsequent rise in the fiscal deficit. While output does not increase in this process, administered prices may rise, leading to a higher level of inflation.
(7) The fiscal deficit rises in response to the growing share of black economy because of (a) the lower buoyancy of taxes, (b) illegal transfers from the public sector, (c) increased burden of interest payments and (d) increased expenditures on subsidies, law and order, etc. Since most of them have no impact on output, the role of fiscal deficit in raising the level of output declines with the growing share of the black economy.

Impact of Black Investments

An increase in I_{pb} in eq 3, raises RHS so that the level of P_p (LHS) has to increase through an increase in output.

(1) Under invoiced inventories lead to the rise in the actual investment in the economy but through the black channel. This leads to a rise in P_{pb} and the level of output. However, if inventories rise at a rate faster than that of output, profitability declines and the purpose of generating black incomes is defeated so that it cannot be a significant activity (Appendix 1). Increase in cash balances though small will force interest rates to rise and lower the level of output.

(2) Over invoiced plant and equipment implies that I_w is over stated. In effect, I_b is negative while P_{pb} rises by this amount. P_{pw} should be higher by the amount of over invoicing due to the higher declared I_w. Hence, while the RHS is unchanged, the LHS appears to rise by twice the over invoicing. This requires P_{pw} to fall from its apparent level by twice the amount of such over invoicing. The level of output is correspondingly affected and the multiplier has a negative value. This aspect is countered by under invoiced investments which increases I_b.

(3) Flows into the informal sector and white savings lead to an increase in investments since unfulfilled projects can be funded. Thus, P_p and output rise. A part of these funds flow into speculative channels but this does not lead to a rise in the level of investment

(4) Holdings of precious metals, etc, and flight of capital imply a leakage of savings from the economy. Investments are made outside so that output or gross profit do not rise within the national economy. However, there is an effect through the current account surplus which is dealt with in the next sub-section.

(5) Investments in transfer activities. The black profits do not rise unless they lead to larger consumption or investment. But that is dependent on other aspects of the economy and taken care of by other variables in eq 3. It results in an increase in the transactions velocity of money and a decrease in its income velocity. It could result in higher investments in other black channels but does not due to the relative rates of returns being lower in those activities.

(6) Investments in illegal activities raise the level of output in the economy. P_{pb} increase but a major portion of it accrues outside the economy and promotes criminalisation of society.

In a nutshell, while the savings rate out of black incomes is likely to be much higher than that of the white economy, the investment rate is likely to be lower since many components of black investments are either transfers or leakages from the national economy. Hence *black investments tend to (a) lower the rate of growth of the economy as compared to what it could have been and (b) cause a worsening in the BOP*. The reason why the rate of growth of black incomes remains higher than of white incomes is that the former is not generated out of black investments alone. A part of the output from white investments is not declared and generate a major chunk of the black incomes.

Black Economy and BOP

As already argued, the functioning of the black economy results in a lower true trade deficit, a current account surplus rather than a deficit and outflow of private capital rather than an inflow. However, what is relevant to the BOP situation is the official current account deficit. The current account surplus (instead of deficit) implies a *higher level of output and of gross black profits*

Increase in black investments (in real estate, gold, gems, capital held abroad) and black consumption (consumer durables, foreign vacations, etc) lead to *increased demand for foreign exchange, worsen the BOP situation and lead to pressures for the devaluation of* the currency.

Investments outside the national economy are matched by a rise in the current account surplus and since these are linked to illegal activities, they raise P_{pb} outside the economy with no impact on output in the economy. Hence, in comparison to the situation where these investments had occurred in the economy, *the rate of growth of the economy and its employment potential decline*. The adverse BOP situation this creates lowers the economy's capacity to import essentials and its rate of growth. It slows down the rise in productivity in the economy.

An increase in the *capitalist consumption* causes P_p and output to rise. However, since its import intensity is higher, it adversely affects the trade account and reduces the rise in P_p.

In brief, the impact of the black economy on the external sector through C_c, I_b and the current account causes P_p and output to rise while the BOP situation worsens. This last poses difficulties for the white sector and since a large part of the P_{pb} associated with these activities accrue outside, the benefit to the national economy is reduced. Finally, since a major part of this activity is also illegal, like, drugs, smuggling, etc, it poses additional problems for the national economy through criminalisation and increases in expenditures on law and order.

VI
Black Economy: Larger Macro Aspects

The repeated failure of economists to come up with plausible explanations of the Indian macro-economy based solely on the analysis of the white economy should have made them look for other explanations. But, given the complexity of most economic phenomenon, partial explanations go a long way and specially if there is a ruling ideology pushing ahead regardless.[16] The Left economists have ignored the black economy, in spite of mounting evidence that it had become significant in the 1970s itself. Even though for them policy was critical and its failure evident they could not see the link between policy failure and the growing share of the black economy since it was not a part of their framework.

Analysts from the Right used the fact of a growing black economy to discredit state intervention in the economy and used policy failure to attack the pro-poor orientation (at least on paper) of policies as populism.[17] They turned the logic of the black economy around. Rather than see the rising share of black economy and the consequent rise in the share of property incomes as the cause of policy failure, they depict state intervention as the cause of the black economy and economic failure. The international trends since the 1970s – namely, the rise of Reganism and Thatcherism, the decline of the Soviet system and the growing dominance of the IMF and the World Bank over the third world were pushing this line of thinking

The economists from the Right do not analyse the black economy in a macro context but formulate issues pertaining to it in micro terms, usually resorting to optimisation under given constraints and focusing on individual behaviour.[18] Income is taken to be given and its dependence on expenditures and output as is clear from equation 3 above, is ignored

Tax evasion is by a class of people affecting expenditures both by them and the government. Thus, there are implications for the incomes of the class itself It is then erroneous to isolate an individual to study his/her tax behaviour. Further, tax evasion raises the share of profits in output so that there are distributional consequences which affect demand and incomes as shown by equation 3 and analysed above Thus, there are consequences of tax evasion not only for an individual belonging to the tax evading class but also for the social welfare of that group, an issue which the micro literature does not address.

For instance, this literature fails to realise that the black economy hurts the interest of capital the most – as shown above, markets stagnate and slow down growth. Since budgetary expenditures are predominantly in the interests of the propertied, as the state loses its capability, they lose the most. Inadequacy of law and order, education, health, rural infrastructure, power, transportation and telecommunications hurt the interest of capital more than that of labour (or the poor).

Due to the rising share of the black economy, the policy-maker has lost control over the flows of capital within the economy and its leakage outside. Not only does the share of capital in national income rise, it has become a channel for its further expansion through obtaining more concessions. This limits resource mobilisation by the government and forces it to borrow from the propertied classes themselves. Since they can choose between the black and the white economies, they extract further concessions from the government to lend to it [Kumar 1988a]. To make interest rates competitive with the returns available in the black economy, tax concessions have had to be granted to attract capital into socially desirable areas thereby raising the share of capital in income.

The black economy forces the government to borrow more at rising interest rates and to raise indirect tax collections thereby raising cost of production in the economy (Appendix 4). This could have been avoided if resources could have been raised through direct taxes since they are not a prime cost and do not enter the pricing formula of firms. In effect, *dependence on direct taxes for revenue would have insulated the production structures from the inefficiency of the system* caused by the growing black economy.

Finally, the leakage of black profits from the economy and their investment abroad is like having capital account convertibility. *Indian capital has become internationalised through this route.* Mobility has thwarted policy and become another mechanism for extracting concessions. Internationally also, greater mobility of capital has strengthened it against labour. This is apart from the fact that trade union strength has fallen in most countries of the world. Capital mobility has forced nations to make competitive concessions and raise the share of capital in output worldwide.

In a nutshell, tax evasion is a macro issue and not a micro one. For instance, by itself, it does not lead to an increase in P_p though individual capitalists may feel so. The growth of the black economy leads to a rise in the share of capital in national income *through primitive accumulation of capital.* This occurs directly through an increase in gross black profits and indirectly through obtaining concessions. However, for national capital this route to raise its share is inefficient since it reduces the growth impulses in the economy, raises costs of production, creates a BOP difficulty and leads to policy failure and reduced effectiveness of the state. The failure of policy has not remained confined to the economic sphere. The authority of the state has weakened, illegality has grown and their effects visible in the social and cultural spheres. These aspects of the consequences of a growing black economy can be used to understand more fully the developments in the Indian economy since the 1970s.

VII
Analysis of Growing Crisis since 1970s

Stylised Facts of 1970s and 1980s

The crisis in the Indian economy in 1991 did not materialise suddenly and had its roots going back to at least the early 1970s. So to analyse this crisis, it is important to take into account the behaviour of the key macro variables of the Indian economy in the 1970s and the 1980s. But as pointed out earlier, the black part of the variables also have to be taken into account.

Data from the white economy indicate that the rate of growth of output fluctuated through this period. It was higher on the average after the mid-1970s than up to then. The wholesale price index fluctuated sharply during the period and the average climbed through the 1980s and into the 1990s. Thus, nominal GDP grew at a consistently high rate through the period. Employment generation decelerated through the 1980s, specially in the organised sector. The unorganised sector data are unreliable but indications of a decline are available. These variables discussed so far are linked to the LHS of equation 3 and depend on the independent macro variables on the RHS.

The following variables increased faster than the GDP. Indirect taxes, borrowings of the public sector, deficit financing, fiscal deficit, subsidies, interest burden on the budget, exports and imports. The ratio of trade deficit to GDP increased up to the early 1980s and then declined. The ratio of direct taxes to GDP rose up to the mid-1970s and then declined. Gross domestic savings and capital formation rose through the 1970s, declined up to the mid-1980s and again rose. The gap between the two however rose, indicating capital inflow from abroad. The availability of consumer durables rose through the period and specially after the early 1980s when many new goods hitherto unavailable were introduced into Indian markets.

Data from the black economy indicate a growing ratio of black economy to the white economy. Flight of capital, smuggling (of gold, silver, gems, synthetics and electronics) and under-invoicing and over-invoicing of exports and imports all grew in magnitude. While gross black profits rose, due to leakage from the national economy, the investment ratio in the black economy was much less than for the white economy.

Implications of Stylised Facts

Many of the above mentioned trends in the white part of the independent macro variables are a consequence of the growing share of black incomes in the economy. The growing share of the black economy implies a rise in the share of P_{pb} to P_p and of P_p in national income. *Ceteris paribus*, this implies an increase in the degree of monopoly in the economy. Proposition 3 of equation 3 is applicable in this case and suggests a tendency towards stagflation in the economy.

The private sector which cannot on its own check the growth of the black economy found itself hamstrung in raising the rate of growth of output in the economy. A rise in C_c and in the current account surplus helps in boosting demand but the former is small and the latter linked to illegal activities hence with little linkage with the white economy. Higher P_p did not lead to a *corresponding* rise in investments since they leaked out of the economy or were diverted to transfer activities.

Growth impulses from the private sector remained weak in spite of the rising degree of monopoly in the economy. The investment process weakened in the private sector with funds diverted into unproductive channels where the rates of return were high due to tax evasion, like, in the secondary share market, real estate, hoarding, etc. Rural surpluses instead of being reinvested flowed into real estate speculation, holding of gold, etc. As already discussed, these are transfers with little impact on production.[19] The black economy by diverting investments away from productive into unproductive channels has slowed down the growth impetus of the private sector.

The ratio of white private investments to GDP stagnated. While data show that the share of property income and savings in national income rose, leakages from the national economy prevented the share of

white savings in the economy from rising in the 1980s. As already argued, the black investments have not enabled the share of investments in the economy to rise. Consequently, since the last 1970s growth became critically dependent on the growing fiscal deficit.

The government did try to raise the rate of growth by increasing the primary fiscal deficit. In the 1980s, the rising fiscal deficit helped increase demand and the rate of growth of the economy. But as the black economy grew, the logic of propositions 4, 5 and 6 came into play and limited the role of fiscal deficit. To recapitulate, the growing share of the black economy reduced the buoyancy of direct taxes and forced increases in indirect taxes and borrowings. The interest burden on the budget rose and the primary fiscal deficit stagnated even though the fiscal deficit continued to grow and the growth impulse petered out.

The employment coefficient of black expenditures is low except in illegal activities. Even black consumption tends to be of the hi-tech variety and is capital-intensive like, in luxury tourism, hotels and restaurants, other professions, etc. Consequently, the multiplier associated with the black economy has been small.

Moderate real rates of growth, coupled with declining employment coefficients in the white and the black investments led to a growing problem of un- and under-employment right through the 1980s. The burden of employment generation fell on the residual unorganised sector with low paid jobs. This could not fulfil the expectations of the rising number of degree holders and manifested itself in the rising tide of social discontent and their turning towards illegal activities which the black economy was in any case promoting. The black economy worked from both the supply and demand side to catch unemployed youth in its grip.

The rise in the rates of return in the economy and the rising share of the indirect taxes in the economy reflected themselves in the high cost economy and a general inflationary pressure. They led to a rise in the subsidies in the economy and where producers were not able to pass on cost increases as in the case of the public sector, industries with stagnant demand and the small-scale sector, there was growing sickness. Subsidies are of two kinds (proposition 5) and are associated with political elements.

First, subsidies which were genuinely required by those (the non-propertied) whose real income generation had stagnated and their capacity to pay full cost of food, infrastructure, etc, had declined. Subsidies were also required in urban areas if cities were not to totally breakdown because the bulk of the population was unable to pay full cost of services.[20] Secondly, subsidies were enjoyed by the well-off sections of society who provided themselves implicit subsidies (Rs 6,000 per person in Delhi in the late 1980s). In many cases, subsidies for the non-propertied were also appropriated by the propertied.[21] This cannot be an argument for ending subsidies for the poor.

The public sector is full of inefficiencies and corruption. The public sector has been used by those in power to build personal fiefdoms and is at the root of political and bureaucratic interference. It is also responsible for the demoralisation of the workforce of the public sector and its lack of commitment to the idea of the public sector. The budgetary subsidies to the public sector have benefited the propertied through availability of cheap infrastructure. However, this is unsustainable since it led to the budgetary crisis and sickness in the public sector.

Certain subsidies to the propertied appear to be legitimate. They are the result of rising costs as in the case of exports and fertilisers. To keep inflation in check, food price increase had to be moderated which required subsidies for inputs into agriculture. In brief, the increasing ratio of subsidies to GDP raised the ratio of fiscal deficit to GDP and kept prices in check. However, since a growing proportion of subsidies were cornered by the propertied, it did not cause a commensurate increase in the growth of output (proposition 6).

In brief, the rising share of the black economy has in one way or the other affected the trends in all the independent macro variables and hence the dependent variables. It explains the relatively slow rate of growth of the economy in the 1970s and the 1980s in spite of the rising ratio of fiscal deficit to GDP. The growing budgetary crisis and the eventual petering out of the growth impulses in the economy in the late 1980s, the worsening BOP situation, the rising costs of production and growing inflationary potential are its consequence. These trends aggravated unemployment and along with growth in illegal activities led to growing criminalisation and breakdown of cities. The private sector finding an easy route to higher profits did not need to take risks in development of technology. With public sector sickness and limitations in imports of essential technology due to BOP problems, technological dynamism of the economy further slackened in the 1970s and the 1980s.[22] The period is characterised by widespread policy failure.

VIII
NEP and Black Economy

As argued in Sections I and II, NEP attempt to generate supply side responses in the economy. They hope to play that role in the white economy which capitalists had been achieving through the black economy – namely, raise the share of P_p in national income. A wide variety of concessions have been granted to capital. State is supposed to retreat through privatisation of the public sector, cuts in subsidies to 'get the prices right', downgrading of planning and the unshackling of the market forces. A reduction in the budgetary transfers to the non-propertied has been implemented by cutting subsidies meant for them. Concessions, like, lowering of tariffs and taxes, devaluation, dilution of FERA have been granted to foreign capital to attract technology.

A reduction in the fiscal deficit while cutting direct taxes and customs duties is the surest way to force reduction in expenditures to limit the role of state in the economy. The *black economy is sought to be curbed by legalising certain activities* but new opportunities seem to have opened up to generate black incomes. Quantitative restrictions on imports have been almost eliminated so that what was smuggling earlier has become importation. Tax concessions are being granted to retain national capital within the national economy and NRIs are being encouraged to bring in capital. A part of this is capital formerly taken out of the country.

These changes have converted a part of P_{pn} into P_{pw}. These would accrue within the national economy. Corresponding black investments abroad may decline. However, loss of foreign exchange has continued since the quantum of these legalised activities has grown.[23] Thus, the true trade account is adversely affected and lowers P_p. With the cheapening of foreign goods, capitalist consumption has risen, again adversely affecting the trade deficit. In brief, the growth impulses emanating from the external sector and the public sector have weakened under NEP.

Since tax rates have come down sharply and controls are less, some have argued that the size of the black economy would have declined. This is not borne out by a listing of the major scandals exposed in the national press between 1956 and 1996. The amounts involved have grown exponentially when the 1990s are compared to the 1980s. The biggest scam of the 1980s was Bofors involving a sum of

Rs 65 crore but there were at least a dozen scams involving larger sums in the 1990s. The largest being the securities scam involving Rs 3,000 crore. The number of scams reported in the 1980s was 13 while the number for the 1990s till 1996 was 26. This is not just a matter of more vigilant media.

What the above suggests is that the black economy measured as a share of the white economy has not diminished and most likely grown even if some activities have gone out of its ambit.[24] The large-scale expansion of the tertiary sector in spite of a reduction in the scale of operations of the government has been based on increase in speculative activities [Kumar 1996b] which lend themselves to black income generation. Part of the growth of the economy is a result of government propaganda to show the success of NEP but a part is based on the declaration of formerly undeclared output [Kumar 1996a].

In brief, the decline of governmental regulation, increases in the scale and size of corruption, the newer opportunities to businesses, increase in speculative activities and growth in the tertiary sector where the black economy is concentrated suggest that the black economy has continued to grow. Even the evidence that buoyancy of direct tax has gone up is not an evidence of better compliance but reflects more skewed income distribution [Kumar 1994a and 1995]. The problems originating from the black economy prior to 1991 have, therefore, continued. These are compounded by the trends from the public sector and the external sector.

The burden of growth then falls on increasing white investments. But, this is unlikely to happen with excess capacity in many sectors. The decrease in black investments abroad do not lead to white investments. On the whole then demand would tend to decline and lower P_p. Black profits would not entirely reappear as white profits as the economy slows down. *The paradox is that an attempt to raise the share of profits in national income leads to a fall in the level of gross profits.*

As already pointed out, it is not that the share of P_p in the economy was not rising in the 1970s and the 1980s. Its further rise due to NEP is only accentuating the problems already being faced during the earlier period – the markets can only narrow further. With slow demand growth, private investments, Indian or foreign, cannot be buoyant.

Supply side responses expected by NEP can only occur with a time lag [Kumar 1994a] provided investments rise and technology improves. If this is based on import of capital goods, current account deficit will widen by an equal amount and the market size would not change. Demand would further decline if projects that could be internally set up are based on imports. Foreign investment has affected Indian investment [Kumar 1994a] by posing a threat and is hardly the solution unless it comes on an unprecedented scale in spite of slow down. But then, it would have to be export-oriented. There are few signs of this at present.

Internationalisation of Indian capital has gone a step further through the opening up of the Indian markets and the liberalisation of terms and conditions for MNCs bringing in capital and the consequent shake out taking place in the Indian capital markets. MNCs have teamed up with Indian big business (junior partners). Without bringing in much capital they can control Indian capital through their financial clout, technology, marketing, brand names, etc.

Indian national capital by supporting NEP has displayed short-sightedness. The increased share of profits in national income post-1991 has mostly accrued to MNC capital and the narrowing of the home markets has meant that indigenous capital has weakened with respect to the MNCs. Indian capital can expand at the expense of the smaller units of capital – the small and the medium sectors but this would be inadequate to counter the challenge of MNCs. The situation is just ripe for the MNCs to absorb their junior partners – the Indian collaborators.

With slow down in industry and rupee proceeds accruing to former smugglers, there has been a rise in speculative activity – in the foreign exchange market, secondary share market, real estate and goods in short supply. These are transfer activities and do not count but they can fuel flight of capital if a rising current account deficit on the white account leads to devaluation increasing the rates of return on holdings of foreign exchange and gold.

NEP has introduced cost push elements in the Indian economy. Getting prices right meant profit inflation, increases in administered prices and cuts in subsidies. Devaluation has led to imported inflation. Prices have risen in spite of reductions in the rates of customs duties and cuts in excise duties on luxuries.

Prices of certain white goods, like, autos, computers and CTVs have declined but this does not affect the general price level. Even if there is an expansion in demand for white goods, given the high import intensity, the impact on industrial growth would be low but imports would rise. Cheapening of capital goods will not affect the price level for several years. It may, however, upgrade technology and help exports through quality improvements. Clearly, even if this occurs, imports will rise before exports and the current account deficit will worsen. Finally, exports may still not rise if the international economy slows down.

In brief, under NEP, the size of the black economy has continued to grow in spite of the legalisation of certain formerly illegal activities. This is due to the easing of the business environment and the availability of opportunities for not declaring profits. The pre-1991 trend for an increase in the share of profits and internationalisation of the economy has continued. Inflationary pressures have continued, the true current account surplus has declined resulting in a creeping devaluation which has encouraged flight of capital and holding of gold and foreign exchange. To counter this, the government may have to impose curbs on imports or to allow further devaluation. To counter inflation, internal demand has had to be curtailed and fiscal deficit cut through a reduction in expenditures. A tight credit policy and high interest rates has become necessary. All this would slow down growth in demand and output. With opening up, the Indian policy-makers have lost their capacity to solve certain key internal economic problems. *Policy failure is substituted by absence of policy in these areas.*

IX
Conclusion

The major macro-economic problems of the 1970s and the 1980s were integrally linked to the growing phenomenon of black income generation. It should have been a significant factor of analysis of the Indian economy. Its non-inclusion in analysis resulted in a partial understanding of the Indian economy and often to incorrect policy pronouncements.

This paper describes the institutional practices of the black economy and incorporates it into the short run macro-analysis of the Indian economy. The need to incorporate the black economy is not simply an empirical matter but a theoretical necessity. The circular flow of incomes changes with the black economy. Black incomes are first defined. Transfers are not included but their implications for national incomes, savings and velocity of circulation are presented. The theoretical analysis yields counter intuitive results with regard to tax evasion, investment and savings, subsidies, BOP, etc. The empirical

trends since the 1970s, say, with regard to unemployment, inflation, fiscal gap, current account deficit or investments and savings can be better explained using this framework.

Evasion of taxes and generation of black incomes leads to stagflationary conditions in the economy. Undeclared profits rise leading to a growing share of profits. The fiscal deficit grows but does not promote growth. The growing inefficiency of the system passes on to production so that costs rise fuelling inflation and reducing India's export competitiveness. The black economy leads to the fiscal crisis and erosion of the public sector's profitability due to the diversion of profits to private hands.

Capital used the black economy to raise its share in national income and created a contradiction for itself. It reduced its own capacity to grow rapidly (by narrowing its markets). While this made it more dependent on the state to generate demand in the economy, it also reduced the effectiveness of the state do to so – policy failure. It blunted its instruments for its own rapid growth for the sake of short-term gains.

NEP ignore the implications of the black economy. Many activities which were earlier illegal were legalised. However, this does not solve the problem since neither the growth impulses improve nor the leakages from the national economy decline. There may be some decrease in the transactions costs and the size of bureaucracy but by themselves they cannot be sufficient to speed up growth. Social waste has only grown.

Under NEP in spite of the decrease in tax rates and reductions in controls, the size of the black economy has continued to grow as indicated by rising corruption, growth in the tertiary sector and increase in speculative activity. The nature of the activities associated with the black economy (now or earlier) have to be changed and the income distribution implications of the black economy have to be tackled before a dent can be made on the basic problems of the economy. The NEP then do not constitute the solution to the country's basic problems. For the non-propertied who are told to wait patiently for their lot to improve, matters can only get worse.

The policy-maker is not willing to consider that in the last 50 years trickle down has been inadequate. In the 1980s, in spite of massive investments, the backlog of employment has grown. Government's difficulties in maintaining in real terms the expenditures on social sectors implies a worsening of the conditions of the non-propertied – those who are marginal to the market and need help from the state. But the state is in retreat.

NEP are changing the politics of the country. The coalition of the ruling groups in India has undergone a change with the inclusion of international capital and the marginalisation of the rural elite, the small businesses and the middle classes. Capitalist development under the tutelage of foreign capital is being attempted. This is 'globalisation' of the Indian economy, its internationalisation through legitimate means.

In a nutshell, that which is the corrective to the policies pursued before 1991 is also the corrective to the ills of the New Economic Policies. The black economy needs to be tackled head on and its more pernicious elements eliminated from the economy. Concessions to the propertied under NEP will not achieve this goal. They will have to change the basic nature of their economic activities. In this, the fiscal-monetary policy which governs the functioning of the major parts of the marketised economy can and will have to play a major role. The policy regime itself has to change from that which has existed in India. That is the real alternative before the nation -- an indigenous one based on the nation's own resources.

Notes

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1 The Right economists have used the existence of the black economy to argue for reduced state intervention while the left economists have not linked it to the observed policy failure in the 1970s and the 1980s or to its implications for the nature of state intervention in the Indan context. For instance, Bhagwati and Srinivasan (1993) do not analyse the black economy and its consequences to understand the Indian economic crisis. Bardhan (1984) ignores this dimension in his analysis. How little understanding of the black economy goes into the recommendations of the influential Report of the Tax Reforms Committee is illustrated by the interchangeable use of the terms black money and black income [GOI 1991:33]. Chakravarty (1987) or articles in Byres (1997) analysing the Indian economy hardly refer to the black economy. There are rare analyses, like D'Souza (1992), which incorporate the black economy into the analysis of the Indian economy.

2 For the first time in post-independence India, the inadequacy of the trickle down associated with the current development process is being ignored. It is not being considered that the consequences of the market processes which are penetrating deeper into the economy and coercively involve the poor into the markets, require correctives through state intervention. This, in spite of the knowledge that the so called 'efficient' markets cannot on their own correct maldistribution.

Critics of NEP were also the critics of the policies pursued till 1991. Their case is not that we return to the pre-1991 policies [Kumar and Sen 1993]. They had argued that the country was heading towards a debt trap (internal and external), inequities were worsening, etc. The argument now is that NEP are even more viciously anti-poor. Critics are status quoists in the sense that they continue to demand an end to the anti poor bias in policies.

3 This is the way some of the critics of NEP have set out the macro-analysis of NEP. See for instance Rakshit (1991). Bacha (1990) is an example of use of a theoretical three gap model.

4 It is for this reason that Rakshit (1991) does not find any relationship between the three gaps when he uses the white data only even though it should have been identically so.

5 Chakravarty (1987) noted that there is a link between the low savings of the public sector and the rising savings of the household sector. He felt if the former is raised it may not lead to an increase in the overall savings propensity in the economy.

6 Data on the black economy are hard to come by and specially with regard to the external sector. However, data used here are based on talks with officials from customs intelligence and RBI. Partner country data analysis and figures for gold smuggling are fairly firm. Data on drug traffic profits are also supposed to be firm. Capital held abroad (say, in accounts) and diversion to havala markets are less firm but indications are available.

7 If the black economy is 40 per cent of the GDP at market prices then its current size would be about Rs 6,40,000 crore. If this could be brought into the tax net, it would result in additional income tax collection, at today's rates, of Rs 1,92,000 crore. This is more than double the current fiscal deficit and could result in lower indirect taxes and internal debt and more funds for the states and the plan. This is the real fiscal adjustment needed by the economy [Kumar and Sen 1993].

In contrast those who ignore the black economy in thier analysis can only suggest a reduction of the fiscal deficit by cuts in expenditures on the plan and the social sectors. They argue for reduced subsidies on food and fertilisers and the privatisation of the public sector without correcting the underlying causes of the rise in subsidies or the losses of the public sector. The debate enters blind alleys of prejudices.

8 Even in measuring the size of those components of the secondary sector where methods independent of the black economy are used like, input-output approach for the construction sector, if inputs are underestimates due to the existence of the black economy then the output would also be an underestimate.

9 Net capital inflow on the white account for the mid-1990s was around 2 per cent of GDP. It is conceivable that the private black hoards of capital held abroad may start to return under certain conditions and reverse the current actual outflow of capital.

10 There is a difficulty in how to treat the NRI remittances? Much of this may be flowing in through the havala markets as black. In this article these are being treated as household savings which should have come into the Indian economy but get transferred to those wanting to hold savings in foreign exchange outside the economy. NRI remittances have not kept pace with the number of Indians working outside or their rising incomes and it is likely that this has to do with the havala

markets. Further, increase in NRI deposits in spite of lucrative returns offered have been less than expected, reflecting diversion to other channels

11 Propensity to consume out of black incomes is supposed to be high. Yet, because these are high incomes, their consumption propensity is likely to be less than out of all white incomes. It is assumed here that one of the ways of consuming more out of black incomes would be to spend on status symbols like housing, cars, scooters and CTVs. In 1990-91, only 6 million individuals owned scooters or CTVs and only 1.5 million owned cars. If those with black incomes own at least a CTV then the number of families with substantial black incomes would be less than 6 million in 1990-91 out of 160 million families. In Kumar and Sen (1993) it was estimated that these families would have black income of at least Rs 3.5 lakh which is 50 times the national per capita income.

12 To the extent the black investments and the corresponding savings emanate from the real economy (black and white) with the associated factor incomes there are associated goods and services. If they are not utilised, during the period, they will accumulate as unsold inventories and would tend to dampen output.

The multiplier associated with black activity may also be smaller not only because of the higher black savings propensity but because of the institutional practices and the tendency of the black investments to leak out of the national economy.

13 If the cost of borrowing to the government is taken as the interest paid and the taxes foregone as concessions for such borrowing, then according to Sachdeva (1990), the cost of borrowing has risen from 7 per cent in 1971 to 22 per cent in 1987

14 This is the usual idea that expenditures govern output in the short run. All the terms on the RHS of eq 3 constitute expenditures or net injection of demand in the economy and the left hand constitutes income. The variables on the LHS are determined by longer-term factors but they cannot be written as functions of these variables for short term analysis since they are to be taken in the ex ante sense, and, therefore, not allowed to vary in the period. Hence imports and consumption cannot be written as functions of national income as it is done at times

15 Many other results can be derived [Kumar 1988a] but the ones given here are useful for the analysis in subsequent sections

16 Many economists make a false distinction between theory and empirical work. While this distinction makes some sense in natural sciences, it is hardly relevant to social sciences. Theorising has to refer to society as it is but, in economics, theorising is often based on mathematical models of one kind or the other, requiring abstraction which is not justified by anything more than what can be handled by the tool used. Much theorising is also concerned with the tool itself, independent of the subject matter to be analysed. Finally, even questions posed are often based on what can be answered by the available tools and not necessarily what needs answering. All these general propositions apply in the case of most of the available analysis of black economy.

17 See for instance, Bhagwati and Srinivasan (1975) or Ahluwalia (1985) or several official government reports written during the 1970s and the 1980s and espousing such analysis.

18 For instance, see the classic paper of Allingham and Sandmo (1972) or the paper on rent seeking by Kreuger (1974). Peacock and Shaw (1982) is an exception, since it deals with tax evasion as a macro issue but it ignores the fact that expenditures determine incomes and one should not mix up the two sides of the eq 3.

19 In fact, it was noticed in the 1992 stock market boom that capital raised by the private and the public sector in the primary markets was diverted into speculative activity in the secondary markets. The balance sheets of the private sector companies show this. Their profits in 1992-93 fell due to recession but their other income shot up.

20 Over 50 per cent of the populations of Calcutta, Bombay and Delhi live in slums in pitiful conditions in spite of the subsidies.

21 In the case of fertilisers, subsidies meant for farmers are paid to manufacturers. To gain more, costs are inflated by over invoicing capital. The government guaranteed 12 per cent rate of return on capital then results in higher subsidy and profits.

22 Additional problems arose out of failure to achieve fiscal decentralisation, growing concentrated urbanisation and the rising capital and energy intensity of the economy. Decline of the unorganised sectors and the small-scale in the economy, poor infrastructure in rural areas and lack of off-farm employment opportunities.

23 Inflow of gold in India was around 170 tonnes in 1990-91 but has risen to about 800 tonnes in 1998-99. Earlier only black savings were kept as gold but now even white savings flow into gold, encouraging an unproductive activity and leakage of foreign exchange.

24 Ades and Tella (1997) suggest that state intervention in industrial investment leads to corruption and a decline in investments. This is obviously not borne out in the Indian context in the post 1991 period where state's intervention in industry has sharply declined but corruption has not gone down. What is true is that where there is more corruption, more laws are broken. The issue is why is there greater illegality? This question is seldom addressed in the literature. Stiglitz (1989) addressing a different question suggests that there is much greater market failure in less developed countries (LDCs). What is being pointed out here is that the black economy is a major cause for such failure

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Culturalism and Contemporary Right
Indian Bourgeoisie and Political Hindutva

Radhika Desai

The formation of a Hindu nationalist government in May 1998 at the crest of hindutva's recent electoral surge clearly testifies to the increasingly authoritarian urges of India's ruling class. Hindutva's chances of holding state power more securely lie in a more complete hegemonisation of this now overwhelmingly capitalist class. Hindutva pursues this political aim in part by adapting its hitherto excessively shrill and narrowly petty bourgeois ideology to the more settled nature, proclivities and imperatives of the ruling class. To this end it commands the resources of contemporary culturalism and neo-Gandhian discourse, must be seen as part of this broader effort to change and update hindutva.

OVER the last two decades, especially since the fall of communism, there has been a proliferation of discourses which claim to be progressive but whose political implications are actually questionable, if not outright conservative or reactionary. Culturalist discourses like postmodernism and post-structuralism have been particularly criticised by liberals as well as leftists and, more recently, linkages between certain strands of these and the emerging cultural politics of the right in the west have been drawn.[1]

The historical development of the right is governed less by the internal logic of its central theses (though some recurring themes can also be discerned[2]) and more by the exigencies of the times, by the tasks it is called upon to perform at given historical moments.[3] One should not be surprised, therefore, if similar conjunctures give rise to similar right-wing formations in many national contexts. This paper focuses on a writer, Ashis Nandy, in the main culturalist intellectual formation in India today, neo-Gandhianism. While the conservative possibilities embedded in the ideas of neo-Gandhian writers have also been noted,[4] this paper argues that, in the case of Ashis Nandy at least, there are far more serious and systematic complicities with the contemporary Indian right's cultural politics of hindutva ('Hindu-ness') or Hindu majoritarian nationalism.

Although, despite Nandy's claims to oppose hindutva, these complicities have not escaped critical attention,[5] their full extent cannot be registered as long as hindutva is viewed as a historically static ideological and political formation which is, moreover, unique to India. The formation of a Hindu nationalist government in May 1998 at the crest of hindutva's recent electoral surge clearly testified to the increasingly authoritarian urges of India's ruling class. However, this government was reliant on a ramshackle coalition with opportunist regional leaders and hindutva's chances of holding state power more securely lie in a more complete hegemonisation of this now overwhelmingly capitalist class. While its success will also depend on factors outside its control, hindutva pursues this political aim in part by adapting its hitherto excessively shrill and narrowly petty bourgeois ideology to the more ambitious and more settled nature, proclivities and imperatives of the ruling class. To this end it commands the resources of contemporary culturalism and Nandy's discourse must be seen as part of this broader effort to change and update hindutva. In this 'political hindutva' which Nandy is helping to build, Nandy's 'opposition' to hindutva are signals to reject elements of the received hindutva in favour of ideas which may be more acceptable and effective components of it in the present context. These may involve shifts in policy – witness, for example, the tensions within hindutva over swadeshi (national self-reliance) versus globalisation policies, or broader shifts in outlook. For example, much as the claim of contemporary European and American extreme right to 'oppose' racism actually signals its shift from biology to culture as the basis of the conception of difference and otherness. Although theoretically and methodologically sophisticated intellectuals would draw us into rarefied issues of theory and evidence and reveal, at best, only rather mediated political complicities and social moorings, with writers of less intellectual weight and more immediate political relevance like Nandy, they are clearly visible when set off against the dynamics of hindutva in the contemporary conjuncture.

While focused on India, a nation particularly disfavoured with national exceptionalism in scholarship both within and outside it, this discussion should arouse more general interest. The similarities in the dynamics of contemporary scholarly culturalism and its relation to the right across capitalist liberal democracies are sufficiently prominent and the particular insights the Indian case has to offer, sufficiently interesting. More importantly, perhaps, the general trends to which India is also subject, despite its formidable historical uniqueness, shed additional light on the character of political discourses emerging in it today. And it requires framing the discussion of Nandy in the Indian context in some general reflections.

Culturalism and Emerging Right

Periods of historical flux are inevitably accompanied by intellectual and political disorientation. The critical work of scrutinising the babble of emergent discourses in the context of the times, on the basis of reassessments of historical realities and possibilities, then becomes necessary for a new cartography of the political terrain to orient progressive politics. Insofar as the decline of left and progressive movements and thinking has been part of the present turbulence, they no longer mark much of the political terrain. But, it is hardly, for all that, featureless. In reorienting and regrouping under new imperatives of order, and with a significantly redefined constituency, the right has been staking out the political landscape. In retrospect it is clear that the late 1960s' worldwide economic slow-down – the first internationally synchronised recession in the history of capitalism – marked a convergence of political, economic, cultural and social trends across the capitalist liberal democracies although it was not immediately noted. By the 1980s, various national right formations were jointly and severally pursuing the agenda of economic liberalisation and then (primarily financial) globalisation as the favoured solution to economic slow-down. Proceeding slowly at first, picking up pace as self-confident New Right regimes held office in the 1980s, the processes set off by them unravelled

progressive regimes – enfeebled social democracies and developmentalisms and, finally by the 1990s, embattled communisms – which, thanks to preceding popular mobilisations, had been attempts to make the face of world capitalism more benign and humane for their respective populations.

With the decline in the power of non-capitalist elites on the one hand, and the left on the other, these common developments were rooted in the unalloyed reflexes, imperatives and interests of a broad swathe of business and professional upper and middle classes – the now more or less fully bourgeois ruling classes of each of these nations and their allies. Despite nearly three decades of accelerating integration and homogenisation, these bourgeoisies have not become a completely homogenous global capitalist class and it may be doubted that they ever will. They are, to begin with, differentially located in relation to each other in the single global hierarchy of economic power which came so plainly into view in the 1990s. Furthermore, they must continually negotiate their relationships with increasingly pressing global economic structures and other national capitals through the nation-state. They also differ in the weight and nature of the globalised and 'national' segments of capital (not to speak of other ways in which capital still fractures in each country) whose interests must also be mutually brokered. Finally, not only do the requirements of legitimation remain nationally specific, the intellectual and cultural resources available to these formations, and therefore the discourses they produce for all these purposes, are those which specific national histories have made available.

Yet, the political similarities are striking. Chief among them is the extent to which the staking and manipulation of cultural boundaries emerged , as so often in the past, as the right's favoured anti-materialist strategy. By the 1980s, after facing down waves of working class and peasant movements, they had been marching under the banners of economistic neo-liberalisms frequently aided, especially where the social bases for neo-liberalism were inadequate (as they so often were), by the international neo-liberalism of the World Bank, the IMF and International Financial Institutions. The early 1990s, however, the very moment of the triumph of the right over its ultimate enemy, communism, was also the moment when globalisation *per se* began attracting not only the beginnings of opposition of working people, but, perhaps to greater political effect, the ambiguity of significant sections of (especially the petty) propertied.[6] The neo-liberalism of the early New Right was never, in its economistic simplicities, an adequate hegemonic ideology. It could not speak to the non-economic lived experiences of people, nor deal with the experience of (global) market failure. In it s wake, the intellectual reconstitution of the right in widely different parts of the world began to feature certain forms of cultural discourses. They supplement and even obscure economic liberalism (without, however, opposing or rejecting it) to form more complete and hegemonic right ideologies based on particularistic cultural identity. As intriguing instance of this is the emergence, in the crisis-ridden post-Thatcherite British Conservative Party, of an intellectual strand which seeks to redeem and go beyond the primarily neo-liberal Thatcherite legacy by collapsing it into a specifically English nationalism.[7] (In a political conjuncture dominated by the right, parties formerly of the left, now in their new incarnations as the US Democratic Party style parties of capital also articulate such discourses only thinly veiled by different labels.) The deployment of the language of particularity, of cultural nationalism, in counterfeit answer to the accelerating universalisation of capitalism which it supports and promotes is the ingenuous reality of the right today.

While the reactionary character of these discourses of cultural identity in their starkest versions is not in doubt, apparently 'moderate' versions of the same ideas are widely accepted and indeed, regarded as progressive. The success of the right – never truly popular – has historically found such political disorientation useful. Today it can be traced in significant part to the spread of certain strands of scholarly culturalist discourses of various sorts – such as postmodernism, post-structuralist and cultural studies . Neither sufficiently responsive and accountable to scholarly/disciplinary standards nor moored in any movement for social change, by default they are oriented to the increasingly authoritarian cultural dynamics of the (largely middle and upper) classes to which they belong (not to mention the cultural apparatuses of increasingly repressive states into which they are progressively integrated).

Postmodernism and post-structuralism have faced plentiful, if largely academic, left criticism (because in the west, where they are most current, the academic world still boasts a left, however residual, in contrast to the political). Such criticism has varied in the degree of harshness with which it has inveighed against individual themes and writers but its chief targets were their general theoretical reliance on erroneous and politically reactionary philosophical tendencies, despite claims to intellectual rigour, and the political conservatism they consequently yield, despite avowals of radicalism.[8] The key lies, of course, in the rejection of reason and its potentials for critical political practice and universalism. The mystification of the dynamics of progressive social change is not confined to reducing the content of progressive concerns to the 'cultural'. They also reify (the now exclusively cultural) structures of domination as unchanging and unchangeable by collective human agency, thus making them the positivist parameters of a new 'realist' social theory. At the same time, political agency is itself debased by celebrating as 'resistance' – a bewildering range of ir- or a-rational acts and non-acts which neither identify nor change structures of domination. And they substitute a right for a left critique of universalism. The leftist critique of 'actually existing' universalisms charges them with being actually based on dominant cultural specificities, and therefore neither genuinely inclusive nor universal. It attempts, however, to move towards a more authentic universality which is the left's true vocation. This attempt is abandoned in favour of a convergence with the right's suspension of any striving towards universality which forms the deeply flawed basis of postmodernism's culturalist turn and the valorisation of cultural difference *per se*.

A small amount of more grounded criticism, with clear political implications, has pointed out, most obviously, that the displacement of the category of inequality by that of cultural difference is untenable, no proper substitute, "a silent abandonment of the analysis of capitalism as a global economic system".[9] But this argument implies that merely directing attention away from the material dynamics and unequal results of capitalism and towards 'frivolous' cultural matters successfully obscures the ills of capitalism. This overestimates the natural self-legitimising capacities of capitalism as a pure private-property-market economic system and underestimates the extent to which the manufacture and management of cultural difference and identity, so often the active ingredient in the right's politics of order, has historically served to stabilise capitalism.

Seemingly liberal multiculturalism, which progressives so often feel they can

ill-afford to criticise in the present political climate, feeds into this right-wing cultural politics. It is neither meant to nor actually succeeds in resolving the problems either inequality or difference.[10] Being set up to fail, as it were, it leaves the door open to an elite majoritarian backlash – right-wing populism. And it is not only the Le Pens and Pat Buchanans of this world who lead their silent majorities, opposed to 'vocal' minorities who get 'special treatment', through it. Such ideas, for example, the widespread anti-multiculturalist opposition to 'political correctness', are no longer the preserve of the extreme right and serve to create a pervasively authoritarian political climate. Now significant sections of the formerly 'progressive' intelligentsia rail against global 'cultural homogenisation' and champion the cause of particularistic cultures.[11] Others, often still avowedly 'progressive', lend scholarly support to these now frighteningly 'mainstream' arguments by reiterating the need for a certain basic level of cultural homogeneity in society for legitimate order even in democratic states, unmindful of the way in which this kind of discourse is primarily wielded against progressive movements as alien and destructive of essential cultural homogeneity.[12] Multiculturalism reveals itself increasingly as a form of enforced conformity to a superior, more 'liberal', culture, differing from assimilationism only in its focus on (small) 'difference' as opposed to the latter's insistence on (broad) homogeneity. In the absence of a left, politics in these countries oscillate narrowly between the 'soft' option of multiculturalism and a harder assimilationist cultural nationalism both of which regard cultural difference as irreducеable and deploy it as the chief, irrationalised weapon against 'homogenising' universal reason. Such convergence of the 'multiculturalist' and assimilationist positions is the true meaning of majoritarian hindutva's otherwise famously bewildering claim that India is secular and tolerant because it is Hindu and makes the Indian case especially revealing....

In general the defence of 'culture' is usually a defence of an existing distribution of material privilege – like the US justification for the Gulf war as a defence of the (gas-guzzling) 'American way of life'. The reverse is also true. As the supersession of neo-liberalism attests again, parties of property are rarely liberal parties and more commonly conservative parties using the resources of 'tradition' to defend privilege and the resources of 'culture' to secure the right to rule. Not only is the use of this discourse to the elites of most capitalist societies in managing internal dissent by 'othering' it as alien – 'enemies within' – tried and tested, culturalism refines it further by basing difference on culture, abandoning the problematic biological arena where science could be marshalled against it.[13] In the present context other advantages of culturalism would include its utility to various bourgeoisies negotiating their position in an international pecking order, not least through product differentiation for their 'culture' industries (appropriating, as in all other industries, the cultural labour of their 'ethnic' working populations). The pronounced anti-statism and opposition to collective political projects in the postmodern opposition to 'meta-narratives' facilitate the assimilation of these discourses to ideological formations which include some version of neo-liberalism with corresponding Popperian aversions to "social engineering".

Embourgeoisment of Gandhi

Kindred intellectual currents in India – mainly neo-Gandhian populisms have been gaining ground over the last couple of decades. Becoming academically as well as culturally fashionable, they have not, for all their supposed nativism, emerged in isolation from the international sway of postmodern currents though they are even more tied to the imperatives of the bourgeois right as it has been emerging in India recently. Engaged in a far more purposeful anti-socialism given the presence of an organised Left,[14] they have been repaid with correspondingly more terrestrial, political and intellectual engagement also due, surely, to the lesser intellectual sophistication of these currents. They harness modern India's founding conservative tradition, Gandhianism, while also modifying it to suit the significantly altered contemporary political purposes of the right Neo-Gandhianism opposes the allegedly oppressive and homogenising values and institutions of enlightenment and 'modernity' which, in the Indian context, can also draw upon the legitimacy of certain strands of past anti-colonialism (as a substitute to any current anti-imperialism, of course) in the name of an authentic traditional Indianness which has (give or take a qualification or two) escaped the ravages of this modernity. These increasingly mainstream discourses come disturbingly close to hindutva and, in some cases, like Nandy's, are articulating a contemporary bourgeois form of it, political hindutva.

There is much in Gandhianism which lends itself to these uses. Chiefly, it is a culturalist, indigenist, and flexible ideology with a record to service to property. It proved able to serve a coalition of diverse classes of the propertied in the anti-colonial enterprise and in independent India. They were, on the one hand, the big industrial bourgeoisie whose devotion to Gandhi was as notable as were, despite his stated opposition to modern industrialism, his services to them through his unique brand of ideology and politics – trusteeship and non-violence particularly – as also through his willing deployment of his moral power in their service. Their bourgeoisification had reduced the need to rely on brahminical hierarchies to secure their position, though it had not eliminated it. In any case, the preservation of property and privilege in India was then reliant on a rather different group, as Gandhi acutely recognised, to whom a suitable version of brahminism would be crucially important: rural landlords as well as substantial peasant and tenant landholders of the dominant proprietary castes. They adhered to Gandhi for the legitimacy he attributed to property and to their status as the locally-based arbiters of affairs in rural India. Although Gandhi's discourse had a wide mass appeal because it tapped the popular (though, by the 20th century, no longer radical) impulses of bhakti, both Gandhi's idiom and his message catered to the rural classes, not the masses who were mobilised largely under the tutelage of their dominant caste patrons. Gandhi's celebrated reinterpretation of Hinduism was premised on the insight that brahminism could only continue to be legitimated at the price of extending its boundaries to include the better-off 'improved' shudras. After all, the reality was that the vast majority of holders of property in the country whose political power would become effective in the coming liberal democratic context were the non-brahmin, non-savarna (twice-born), 'forward caste', touchable shudras. Enterprisingly grasping commercial opportunities and anxious for cultural/ritual upward mobility to match the economic, they would, he wagered, respond to a brahminical Hinduism expanded to include them.[15]

These propertied groups as yet feared little challenge to their respective positions and, for an ideology of property, Gandhianism could appear astonishingly benign, even reformist (as with his campaign against ritual untouchability, though not its socio-economic dimensions). And the propertied were largely immune to the temptations of the more militant Hindu nationalism which had also arisen as an organised political force by the 1920s. Its repressive quotient was to

remain, as it were, surplus to requirements until the 1980s. Until then it remained confined to a small urban petty bourgeois and (largely for reasons of the specificity of the caste structure) northern and western base. Even so, many of the adherents of Hindu nationalism were accommodated in Gandhi's Congress usually in alliance with the powerful Congress right.[16] Nehru's project of industrial development upon which the Indian state ambitiously embarked upon independence obscured (and remained hostage to) Gandhianism which remained the active ideology of the propertied class. Its most numerous members still organised their dominance locally aided, ironically, by the substantial welfarist elements financed by the developmentalist state in an expansionary economic climate. Funded by the state, Gandhianism also spawned a vast network of 'social service' organisations, supported by the local propertied elites, whose interventions in the affairs of the poor were, with a handful of exceptions, pacific if not outright repressive.[17]

Neo-Gandhianism emerged in the 1970s. It was a conjuncture marked not only by the transformation of the rural landed into a capitalist class, but also by associated political and economic crisis. These developments marked the beginnings of a polarisation of Indian society and politics whose contours are still not fully mapped. It may be safe to say, nevertheless, that Indira Gandhi's apparently 'left-populist' response to that crisis attempted, improbably, to secure the interests of big industrial capital through state actions legitimised on the strength of (largely illusory) crumbs thrown the way of the poor, rural and urban. The turbulent dynamic of their disillusion combined, momentarily, with the opposition of the rest of the rural and urban bourgeoisie, now, in north India at least, outside Congress, in the movement led by Gandhian socialist Jayaprakash (JP) Narayan. As it emerged from the crucible of the Emergency, this formation, now represented by the clutch of parties – various right-wing splinters of the old Congress party and the Hindu nationalists – which became the chief beneficiaries of the electorate's verdict in 1977, forming the 'Janata' government, clearly revealed itself as the class of property, distinguishable from the social basis of Gandhianism by its now being uniformly and consciously capitalist and professing a neo-Gandhianism as its ideology. Because hitherto big bourgeois power tended to be exercised on the executive, away from the parliamentary political fray, and because the power of landed property has been confined to state politics, this event actually marked the political arrival of the bourgeoisie on the national parliamentary political scene.

While faithful to the culturalist, anti-materialist bent of the original, neo-Gandhianism registered shifts which must now seem familiar, representing a hardening of positions against liberalism and the Left as the 1980s advanced. The revival and exegesis of Gandhi's thought upon which neo-Gandhians tacked their new concerns attempted to make Gandhi into a systematic political thinker. However marvellously effective his political practice in mobilising rural elites and keeping control of the national movement for long periods, as much as in outwitting the Raj, this claim can be doubted. Even less tenably, given the deep, if eclectic, western, indeed Orientalist influences on the London-trained barrister, he was constructed as a 'non-western', that is to say a 'non-enlightenment' thinker, as ineffably Indian, 'outside' the discourse of the 'west', of modern universalist, rational enlightenment thinking.[18] This move, though unconvincing, is not bewildering: it's motives are clear. The neo-Gandhians can now drape this fig-leaf of the irrelevance of the enlightenment and of 'western' discourse in general to their intellectual efforts over the vast fleshy bulk of their derivations from anti-enlightenment postmodernism and post-structuralism as well as their eclectic and convenient departures from them.[19] Posing as 'authentically Indian', inaccessible to, and therefore unaccountable to 'outsiders' – it uses ineffability as product differentiating (secret) patent. It allows the neo-Gandhians to assert themselves internationally without having to prove themselves in genuine intellectual engagement. The neo-Gandhians' posture of progressiveness, greatly aided by the breathtakingly uncritical international prestige the figure of Gandhi enjoys, is based on a repression of his less than emancipatory role in Indian history. The burden of that is displaced onto Nehruvian 'westernised elites' – i e, 'modernist' (inauthentic), rationalist/statist/bureaucratic (oppressive), developmentalist (historicist) and universalist (alien) liberalism and, more importantly, the Left. The emancipation of Indians (which is, of course, now redefined as a more or less cultural matter) was thwarted because the freedom struggle eventuated in a modernist, statist developmentalist bureaucratic regime, a creature of the hysterically rationalist, westernised Indian elites, liberal and left-wing, form which they should be rescued.[20]

Fittingly for an ideology of the bourgeoisie in a capitalist country, Ashis Nandy's discourse issues from one of the most influential research centres in India, reflecting the country's academic mainstream. Nandy has been at the Centre for the Study of Developing Societies (CSDS), New Delhi[21] since it was set up in the mid-1960s by the noted political scientist and now widely respected public figure, Rajni Kothari. Trained at the LSE, Kothari had then begun to gain recognition for his work on the 'Congress system' and the thrust of the work of the CSDS was to study Indian politics through extensive empirical studies in an "analytic perspective different from that provided by the dominant schools of thought – liberal, conservative or Marxist [sic]".[22] There was some concern that Indian politics be understood in terms which made sense in the Indian context, – a sort of 'indigenisation' of the discourse of social science appears to have been aimed at. This actually signalled a desire to supplant the pre-eminence and political influence enjoyed by Marxist scholarship and by intellectuals who were in sympathy with the Left in India. However, a glance at the list of the early publications of the centre reveals that in reality its perspective was captive of the terms and categories of the dominant western social sciences of the time as they applied to developing countries – the sociology of modernisation and American political science. And the work of the centre since then has continued to follow the scholarly fashion of the times – from modernisation to suitably de-Marxified versions of dependency[23] in the 1970s to the present 'Gandhian' focus on poverty and social movements (with a pre-occupation with the cultural) reflecting the culturalisation of the concerns of development theory and the corresponding minimalism of its material ambitions today.[24] It seems that the indigenising aim merely justified a theoretical looseness and, until the late 1970s at least, was pursued through the sheer volume of work in a non-descript mainstream mould, which the centre generated, and to which mainstream and anti-Left elements in the cultural institutions – the universities and the media in particular – could look. By the early 1980s, as Indian politics began to register rightward shifts, their increasing interest was rewarded with neo-Gandhianism.

The CSDS's present neo-Gandhian ideological perspective focuses on social movements particularly among the 'culturally marginalised' of India through

a discourse of 'democracy' and 'human rights' inflected towards the cultural. It emerged, as might be expected of intellectuals usually bringing up the rear of political events, only after the end of the J P movement and the Emergency which followed – regarded by its members as being a critical watershed in the centre's life. A new journal and institute, *Lokayan*, was launched as "a forum of interaction between intellectuals and activists in these [social] movements".[25] The fairly conventional sociological, electoral and other empirical studies which have been so characteristic of the centre's work throughout have continued with only a tenuous link with its increasingly prominent neo-Gandhian project, partly because it is associated with only some of its members and partly, no doubt, attesting to its status as an ideology rather than a genuine theory which can be operationalised for the study of Indian politics. Indeed, while some of the empirical work done by the CSDS – its election studies particularly come to mind – have been found widely useful, it has not been known for the quality of the understandings of Indian politics it has produced. Kothari himself, whose work on the 'Congress system' had the misfortune of suffering the practical criticism of the electorate in elections immediately following, respected not so much for the penetration and rigour of his scholarly work as for his progressive positions on public issues (in keeping with a generous and humane intent rather than the more problematic logic of his thinking, it must be assumed).

The CSDS was also committed to understanding and examining India's relationship with the rest of the world and the latter's impact on it as well as the prospects for peace generally. Soon after its formation the CSDS found its feet in a particular sector of third worldist academic discourse. It was not the third worldism of dependency theory – the "unhappy consciousness of progressive intellectuals... on or just over the dividing line between reluctant acceptance and impatient rejection of the structure but not starting out from or conditioned by involvement in the entirely different practice of a radical working class or peasant party".[26] Even that, though largely academic, would have been too tainted by 'alien' Marxism. Nor was it a substitute for a radical political commitment which it became for so many metropolitan intellectuals. Being in the third-world presumably greatly lessened the psychological urgency of any such commitment. Instead it was the sanguine and dreamy third worldism of the World Order Models Project (WOMP), an international group of academics set up as "a systematic multinational inquiry into the nature of preferred world political systems",[27] interested in thinking up different visions of world order, emerging from different 'cultures' on the basis of which alternatives to the present world order could be conceived, a sort of academic Nativist International. Ashis Nandy views the broader problematic within which the WOMPers, as members liked to be known, worked as a 'futurism'[28] which was social scientif . in contrast to the technicist mainstream versions. It is thereby, one suspects, capable of exercising more eclecticism and freedom from the dictates of either reason or evidence than normally acceptable even in mediocre social science.

The CSDS associated itself with this international network beginning in February 1968 when its first meeting took place in New Delhi. The journal, *Alternatives*, although also publishing work originating more widely, is essentially the house journal of this trend. Jointly edited from India and one or more of its two other bases in Japan and North America, its present position in the firmament of English language social science may be gleaned from its claim to "consider emerging new forms of world politics, challenging the ethnocentrism of much modern social and political analysis and emphasise the possibilities of a humane global polity" as "a much needed forum for feminist, post-colonial and postmodern scholarship in International Relations".[29] However well-meaning, the WOMPers had neither any clearly stated political or intellectual commitments, nor was their work to register the anguish and urgency so characteristic of most third worldism. No major scholarly departures have emerged from it, and WOMP appears to operate primarily as an international network of mutually supporting and citing academics who meet periodically at exotic locations. Nandy, along with the centre, is also associated with the network and the journal, beginning regular publication in the latter in 1978 and joining the editorial team in 1983.

Nandy's Irrationalised Elite Culturalism: An Outline

Nandy's version of neo-Gandhianism claims to be more genuinely emancipatory than the west's rationalist and materialist enlightenment discourse, but it is actually an all too fashionable, and by now familiar, opposition to the Left, liberalism and reason itself. He claims to replace western enlightenment rationalism with something he favours with the term 'critical traditionalism' as the discourse of emancipation. However, his conception of 'tradition' or 'culture' or 'civilisation' (terms he uses interchangeably) is an elite and conservative, and in the case of India, a brahminical, one. Moreover, he never indicates the distinctive rationality 'critical traditionalism' is supposed to embody. This core of irrationalism which has shrugged off the yoke of any (indigenous, authentic, traditional or any other) rationality which may call it to account, precluding any rational discursive engagement on the grounds of reasons' definitional inauthenticity and alienness, imparts to Nandy's discourse a profound potential for authoritarianism. These broad, generically cultural nationalist arguments, have drawn rather little critical attention although their political complicity in the Indian setting could not entirely escape attention.

Nandy recalls that it was his exposure to future studies and "personal encounters with the likes of Ivan Ilich, Gustavo Esteva, Mihailo Marcovic, Odera Oruka, Majid Rahnema and [Eleonora] Masini... who had bypassed the standard academic concerns of the standard universities of the First World... [that]... convinced me that categories and systems of knowledge underwrote dominance more successfully than naked political and economic power".[30] Whatever Nandy's reasons for implicating this singularly undistinguished line-up of his futurist friends, beginning with his first notably successful work *The Intimate Enemy* (1983), Nandy's writings have revolved around the trite opposition between the modern, western, homogenising, enlightenment-derived universal '(non-)culture' of "people who have been uprooted – from their pasts, from their cultures, and from less impersonal communities which often ensure the continuity of traditions"[31] and 'non-modern', 'traditional' particularisms or 'cultures'. Threatened by 'modern' 'western' science, state, reason, history, progress/development, secularism and a host of other enlightenment-based values and institutions, the 'non-modern' resists only by being: 'traditional' culture "is not only the language of resistence, it is itself resistance especially to oppression which comes packaged as historical necessity, often under the names of such worthy causes as a scientific history, technological growth, national security and/or development".[32]

Through the instrumentality of colonialism modern 'global mass culture' has

established beach-heads in the 'non-west', the third world or the south (used interchangeably) in the form of their westernised, modern urban middle classes. While political economy and profits may have been part of colonialism, it is primarily a 'state of mind', which is why it has not been defeated yet, why it is still expanding the reach of that culture which "needs to be defeated ultimately in the minds of men".[33] But at least one of Nandy's targets is both nearer and more palpable: even more than the western or global manifestation of these forces, the modern state in India, as elsewhere in the 'non-west', represents a particularly malign and culpable concentration of all these forces. It has become overwhelmingly dominant and it is against the threat it represents to 'non-modern innocence' that the battle to save what remains of it must take place. But 'traditional culture' the humane and tolerant alternative to the full horror of rationalising, impersonal self-hating modernity, is powerless against the organised might at the disposal of western culture and its colonised agents in the 'non-west'. Thus it is the duty of the true dissenters to speak out for the "humble citizens of these societies who... formally have democratic rights but not the right to bring their identities, culture and idiom into politics or the right to define their preferred futures".[34] Most Indian believe, Nandy argues, equally mistakenly, either that the state is actually pitifully small and powerless, an attitude which is a left-over from colonialism, or trust in small reforms and correctives as the remedy. But yet others,

> a small number of Indians – mostly representing some vestigial forms of Gandhism and post-Maoist Marxism, and the rest being activists and scholars with no clear ideological position – who are trying to interpret the burgeoning peasant movements and the self-affirmation of a variety of minorities, from the tribals to the landless labourers to the untouchables... has begun to think that the problem with the Indian nation-state is not its failure but its success and that they are now dealing with a state which represents an exaggerated and partly pathological extension of the normal anxieties of a post-colonial society [sic].[35]

It is not only the anti-statism of the diagnosis which this culturalism shares with neo-liberalism and postmodernism. The prescription is also familiar: the awareness that "genocides, ecodisasters and ethnocides are but the underside of secular hierarchies, which have reduced major civilisations to the status of a set of empty rituals" makes it possible to "look askance at the old universalism within which the earlier critiques of colonialism were offered".[36] The old rational universalism of left and liberal currents must give way to efforts "to justify and defend the innocence [of the 'non-modern' or 'traditional' colonised cultures] which confronted modern western colonialism".[37] This requires a new type of dissent, more clever and more genuine than the old style dissent which is actually a form of complicity in which "the ruled fight their rulers within the psychological limits set by the latter".[38] Collapsing limited and dominating forms of instrumental reason into reason itself, as is so typical of contemporary culturalism, Nandy argues that dissent which truly aims to escape these all encompassing structures must be respecting of the "plurality of dissent ...partly by articulating it in a language that will not be fully comprehensible on the other side of the global fence of academic respectability."[39]

The achievement of 'justice, compassion and freedom' for the "illiterate savage pitting his naked body against the might of high technology of his oppression"[40] requires, therefore, not 'critical modernity' which, Nandy claims, joining the international anti-socialist chorus, has failed, but what he would term 'critical traditionalism'. One searches in vain in his writings for the opposing concept of 'dominant' tradition. Indeed, as we have already seen, all domination is 'modern' and 'tradition' is, in Nandy's view, progressive by definition, so the adjective in the phrase is a verbal superfluity, a redundancy. But more than that, Nandy's references from the corpus of Indian tradition remain primarily brahminical (which is also, needless to say, Hindu) with Gandhianism as the outer limit and badge of his 'radicalism' (as Nandy's repeated tracing of the boundaries between it and the even more elite 'savarna' brahminism demonstrates). On the one hand Nandy fails to comment on the 'alien', even Orientalist origins of much contemporary discourse on 'Indian' tradition he deploys – whether of a Gandhi or a Coomaraswamy. The former is explicitly (and the others by association) placed 'outside' universalist enlightenment discourse. On the other hand, any of the actually existing critiques of this 'tradition' articulated by Indians would, by Nandy's lights, be infected with the incubus of 'alien' universalism and colonising rationalism – whether it be the liberalism of a Rammohun Roy or a Sayyid Ahmad Khan, communism, the caste-critique of a Phule or an Ambedkar or the feminism of a Tarabai Shinde. None of these find a place in Nandy's conception of the 'Indian tradition'.

Nandy enjoys mutually reinforcing reputations – in India because of his claims to western success and in the west because of his claims to Indian authenticity. While it would be all too easy to exaggerate each of these claims, Nandy's success in the west has one notable quality. Due to a mixture of fashionability, profound ignorance about India even among scholars, and to the efforts of a small band of Nandy's followers and promoters from his futurist academic network, located in the unfortunate 'standard' universities of the English-speaking world, Nandy's claims to progressiveness are most successful there.[41] The extent to which Ashis Nandy's public profile there is built on his own claims, a process greatly aided by that peculiar form of scholarly(sic) publication, the interview, is surprising only until one realises that in contrast to the significant promotion, there is practically no serious interrogation of his work.[42] Nandy's followers and promoters would elevate him to the status of an iconoclastic prophet of liberation from the south, empowering 'the southern intellectual',[43] and of an intellectual (rather than an academic: a reader, frustrated with his relentless inconsistencies, can be forgiven for suspecting that this is chiefly a means of exempting Nandy from compliance with even the most basic rigours of scholarly discourse) who attempts to theorise the work of social activists working among the 'non-modern' who 'constitute and majority of the world'[44] and is 'rooted' in Indian society by birth, training and professional base.[45] And not without a great deal of heaving from the self-promoting Nandy himself.[46] Claiming freedom from any recognisable intellectual current (surely a routine claim of the more unoriginal among thinkers), Nandy works to establish his own brand of culturalism in the academic arena dominated by postmodernism and post-structuralism:

> ...I am...aware that [the new type of dissent] could be a severe threat to those who want to be the voice of the voiceless and the intellectual spokespersons for the oppressed of the world. For we live in a world where the obvious has to be justified in ornate, almost baroque language of scientised social analysis or packaged in the esoteric textual analyses to be legitimate to the intellectual community. I suspect that the main reason for this is the subtle but exceedingly well-organised efforts that go on in the metropolitan centres of knowledge to locate not merely the capitals

of the global political economy in the west but also the capitals of dissent in the fashionable universities, think tanks and, other intellectual centres of the first world. No hegemony is complete unless the predictability of dissent is ensured and that cannot be done unless powerful criteria are set up to decide what is authentic, sane, rational dissent and, then, these criteria are systematically institutionalised through the university system. This is the process that we are witnessing in the burgeoning intellectual fashion industry, inundated these days with such powerful brand names as postmodernism, post-coloniality and post-structuralism.[47]

His devotees, manfully persist nevertheless in attempting to place Nandy in the wider framework of contemporary western academic culturalist discourse. According to one particularly hyperbolic writer, Nandy is "poised to exercise an incalculable influence...when much of the allegedly radical critiques [sic] associated with post-structuralism, post-modernism and post-Marxism are shown to be largely ephemeral". Even while soliciting invitations for him into the 'postmodern palace of language games', they admit to the fear that "he may have to content himself with a room in the subsidised minoritarian wing" (unsure, one suspects, of whether this is due entirely to the structures of cultural imperialism).[48]

Nandy's Indian audience includes a Left and it has had the opportunity to witness the practical implications of Nandy's discourse from closer quarters. Here his radical credentials are harder to take seriously. Of the two major public issues on which Nandy has taken a stand, Nandy's views on the 1987 incident of sati, discussed below, was seen as dangerously vacillating and obfuscating if not outright reactionary, while his stand on the debate about the theory and practice of secularism set off by the rise of the forces of hindutva, discussed later, has been seen as 'appropriable' by those forces.

The notorious sati in Deorala, Rajasthan in 1987 was actually the public and ritualised murder of a young widow, Roop Kanwar, by members of her upwardly mobile family seeking social validation of their wealth by 'reviving' an allegedly 'traditional' high caste practice. It attracted nationwide condemnation also because it was staged as a high-profile event with members of the Rajasthan government on the list of invited guests. Nandy, however, issued a tirade against the widespread condemnation of the perpetrators rather than against the perpetrators:[49] the condemnations, he alleged, were vulgar and simple-minded acts of those who failed to understand the complexities of the situation. Never known to be tender-hearted towards feminism – an 'old', 'complicit', 'modern' and of course, 'western' form of dissent of which he is dismissive – he complained, in particular, that these condemnations had been elicited by the clamour of urban, westernised feminists pitted against 'tradition'. He then proceeded to instruct his benighted 'westernised' urban-middle class 'elite' audience on the complexities of 'tradition'. He distinguished between two types of sati – the 'Ghatna' – episodic, exceptional, and authentically an act of 'self-sacrifice', and what he called 'epidemics' – more worrying and pathological. The purpose of this distinction remained, however, rather mystifying as he could not seem to decide where the death of Roop Kanwar fitted. The incident in Deorala, he claimed, looked like the beginning of an 'epidemic'. Nandy blamed it on 'market morality': it was a "pathology [which] came out only when the traditional way of life began to collapse due to the onslaught of outside forces". However, he also claimed in the same breath that Roop Kanwar's sati had been an act of 'self-sacrifice' even though there was ample possibility of coercion.

His critics, Zoya Hasan and Imrana Qadeer,[50] identified the chief problems with this position. By identifying 'market morality' as the culprit, he exonerated "the role of tradition, Hindu or otherwise, in reviving and glorifying Sati". But he also did not analyse how 'market morality' had been at work in the Deorala incident. Nandy justified his opposition to the condemnation of the sati by pleading, in the face of the known facts about the socio-economic status of Roop Kanwar's marital family, and the rather glaring fact that the rationale behind the whole incident had been its desire to be seen to adopt a high caste practice, that "it is the practice of the poor, the powerless and the unsophisticated, which invite censure". Finally, even while considering the rather obvious possibility that Roop Kanwar had been coerced, and in the face of his other suggestion that the Deorala incident seemed to fit the 'pathological' type of sati, he legitimised the event by seeing the incident as a case of 'self-destruction' as, indeed, the perpetrators wished it to be seen, and likening it to public and political fasts of Gandhian leaders, a heroic and authentically 'traditional' act.

Although Qadeer and Hasan drew a line between the religious revivalists and Nandy, seeing him, at most, as intellectually irresponsible, Nandy's conservative authoritarian slip was already showing under his progressive drag. Whatever he may hope we would understand by his use of the terms 'non-modern' and 'traditional', we would be naive and uninformed to understand by it swathes of social life untouched by capitalism and commodification, preferably blamelessly poor, anywhere in the world. On the contrary, in backward capitalist social formations in which the bulk of the third world, and certainly Indian, population lives (and arguably in stagnant capitalisms everywhere), the authoritative assertion of tradition is the discourse of a now more or less capitalist elite harnessing the non-economic resources of 'tradition' in the hyper-exploitation of lower castes, classes and women, perpetuating a distinctive fraud against even the capitalist ideal of the exchange of equivalents, not to mention wielding it against 'modern' and 'alien' ideas such as social justice. It is an elite not unlike Roop Kanwar's family to whom Nandy's endorsement of 'tradition' and related condemnation of 'market morality' is handy precisely because it is the crass capitalist basis of their wealth they would cloak with 'tradition'. And by seeing her murder as 'self-destruction', if of a deeply grieved impetuous young woman, Nandy gives the family's claim to 'traditionalism' precisely the legitimacy it sought. His targets are the 'modern' progressives – liberal, feminist and leftist – who are accused of being uprooted from their 'traditional' roots, inauthentic and not really concerned with freedom and emancipation but aiming only to aggrandise the power of the modern state to which they have exclusive access. This obviously laughable idea of the identity of India's ruling elite is mainly meant to impart to the increasing political assertion of the Indian bourgeoisie, which now includes this elite of prosperous capitalist farmers, the oppositional stance it needs to take – the 'genuine' dissent/resistance of 'tradition' – against critical currents at home and as a counterfeit 'resistance' to 'homogenising' globalisation internationally.

The significance of Ashis Nandy is not intellectual – after all how many scholars could take one who claims to be 'making myths' as a seriously as a peer? Politically however, his claim to be making myths is oxymoronic only if his voice were a solitary one. And it is not. Along with legion petty and weighty 'opinion leaders' in India, from provincial scribblers and lecturers to editors of national newspapers and politicians, Nandy is engaged in the manufacture of a distinct and new national identity. While Nandy's scholarly credentials may not stand up to scrutiny,

among these minions he must emerge as one of the more esoteric, not to mention more conscious about his ideological claim and antecedents. We are told by Nandy that "while Rabindranath Tagore wanted to turn all Indians into brahmins, Gandhi sought to turn them all into shudras".[51] In his turn Nandy wants all Indians to be the new Indian bourgeoisie – his 'average Indian'[52] – vastly expanded in numbers (as also in consumption capacity so beloved of the liberalisation lobby) and radically changed in composition by the critical infusion of the vast rural but rapidly urbanising capitalists, and of the less numerous but qualitatively significant new breed of maverick businessmen and NRIs (non-resident Indians: people of Indian origin and/or nationality residing abroad). Such segmentation hides their underlying unification as a capitalist class and indeed, it is today more pan-Indian than any time since independence, not to mention global. Like any partial identity substituting for a 'national' one, this project is ultimately about the putting that identity above judgment, making it the standard by which everyone else will be judged, in short hegemonic. With receding possibilities of effective challenges from below, it is already distinctly less genteel or urbane, indeed, often brazenly aggressive, in its self-images. This Indian bourgeoisie is also the principal arbiter of the fate of hindutva, its natural constituency, and the political inflection of its identity, already prone in an authoritarian direction, is an important factor in India's near political future.

Hindutva and Indian Bourgeoisie

In recent decades India's political economy and politics have undergone interlocking changes: the new economic strategies pursued by the state-liberalisation and globalisation and the rise of authoritarian tendencies ranging from the aggression of local elites and police forces to the rise of hindutva as an organised authoritarian option. Rather than being major discontinuities in India's evolution, as they are still commonly held to be, since the 1970s at least, it has been clear that, in the absence of nationally organised politics of the bottom half of Indian society, these changes have been commonly determined by the bourgeoisification of India's propertied classes, in effect an expansion of the bourgeoisie, and its political assertion.[53]

The most numerically weighty addition to the bourgeoisie has come from the commercialisation of agriculture and the spread of capitalist relations of production in it. At independence in 1947, the Indian social formation was indeed distinctive in the third world for having a well-developed big industrial bourgeoisie which was able to use the state to accelerate and diversify industrial growth.[54] The post-independence Congress government under Nehru is widely regarded as having embarked upon an intemperately hasty industrialisation programme, compromising the interest of the more populous agriculture.[55] The large public sector component of the Nehruvian industrial strategy was not 'socialist', but reflected this ability. In the bureaucratic and planning effort required they were aided by a largely upper caste professional or intellectual class.[56] It is not without significance that, except for parties based on disgruntled former landlords and petty princes, no conservative party, certainly no party of capital, was formed in this period[57] and the party of Hindu nationalism, then known as the Bharatiya Jan Sangh (BJS) remained a small presence in parliament – confined to its urban petty bourgeois base.

For all that, however, the political power of the big bourgeoisie was circumscribed. Its proportionally small size, contrasted with the corresponding vastness of the countryside, meant that its power was predicated upon an alliance with the effective holders of the land – the regional dominant caste peasant elite. This alliance had been cemented by Mahatma Gandhi in the 1920s in a political move which was the beginning of the end of British rule. The organisational history of the Congress party since it became a mass organisation in this period registered, given the regional bases of the power of these groups, particularly in its federal structure, the evolution of this alliance. The power of the landed elites had grown with the commercialisation, commodification and spread of capitalist relations of production in the countryside which had been well under way in the 19th century. It had recently accelerated with the establishment of a federal structure in the colonial government in anticipation of eventual independence in the mid-1930s which gave the landholders access to provincial (later called) state power. In areas of landlordism these regional elites tended to be tenants and, Gandhi having successfully prevented the struggle against landlords from diverting from the nationalist purpose until independence, Congress's 'land reform' of the 1950s was, not surprisingly, nothing much more than the consummation of this alliance, entailing but the vesting of land in the hands of these dominant caste tenants (even while leaving former landlords in possession of shrunken but consolidated and efficient pieces of land). This land reform, which led to the 'landlord' and 'peasant' capitalisms of the 1960s onwards, shaped the future of the Indian polity and social formation as much as the more spectacular industrialisation programme. It brought in its train not only an acceleration of commercialisation and the development of capitalist relations in the countryside on its own, but also, as the class of middle, and rich peasants and capitalist farmers grew more politically vocal, further speed-ups of the process with state-sponsorship of the green and white revolutions which, furthermore, weighted agricultural growth towards more distinctively capitalist, investment-driven strategies.

The strategy of industrialisation, for its part, though initially successful in registering strong growth rates and in setting the basis for the diversified industrial structure which India now boasts, soon fell foul of political constraints upon the Nehruvian state. The reality of the political power of the rural landed groups was that they controlled not only state power in the states but could also limit the options of the central government through the structures of the Congress Party. The political representatives of these groups not only diverted substantial budgetary and plan resources towards agriculture, they also made it impossible for the state to extend its tax base to include rural income and wealth.[58] Industrial growth, which had always been parasitical upon public investment as its motor, slowed as the state ran into a fiscal crisis in the late 1960s. When it picked up, after the late 1970s, it now manifested a very different more 'liberalised' pattern: no longer biased towards basic industries and fuelled by state investments, its progressively decontrolled private sector focused on the consumer spending of India's vast rural as well as urban middle classes, though still financed (now at the consumer end) by state deficits and higher rates of borrowing abroad to provide for the import intensity of the pattern.

Until the late 1960s the mode of the exercise of the power of property in the Indian political system tended to dissimulate it: the big bourgeoisie working behind the scenes with the government to secure its interests and power of the rural landed groups, though very real, hidden in the complex structuration of power in Congress Party. After that point, however, the power of the latter – numerically significant and now increasingly bourgeois – had grown to an extent that, and met

impediments in its struggle for state resources to an extent that, it would no longer be contained within Congress. The arrival of this class in Indian party politics in the late 1960s is actually its emergence from Congress. Patchy and regionally specific though it was, it eroded the Congress-centred stability of the party system for the next several decades. Those who had been too blinded by the shiny veneer of Nehruvian developmentalism at the national level to see the workings of the power of the landed elites at the state level, or had accepted the cold war ideology regarding the identity of the Indian elites, and thought of the tone of Indian politics after independence as being set by an urban westernised Nehruvian elite saw in this shift 'a massive alteration in style, language and modes of behaviour, reflecting far more the actual cultural understandings of rural Indian society rather than the westernised cultivation of the elite which inherited power in the Nehru years'.[59] Actually, these fairly acute understandings of Indian political and cultural dynamics had been the basis not only of Gandhi's acute political strategies mentioned above, but also embedded in the practices of regionally based Congress politicians managing complex alliances and reward structures, the basis of Congress dominance.[60]

Initially this newly independent political interest took shape successively in the form of agrarian parties and non-party farmers' movements in different regions of India demanding state subsidies for inputs into capitalist farming such as fertiliser and electricity and higher state procurement prices for grain, in short, better terms of trade with the industrial sector. In this, now largely intra-middle class conflict, the deployment of 'urban bias' arguments in a new populism or 'new agrarianism', accompanied by a romantic celebration of the authentic rusticity of a harmonious pristine 'Bharat' pitted against the menacing might of urban and industrial 'India'[61] is meant, of course, to obscure the fact that the brunt of the adverse terms of trade have been borne by the agricultural labourers, whereas prosperous and capitalist farmers have reaped huge cost-plus surpluses on procurement prices geared to the lower productivity of medium and small farmers.[62] It can be argued, however, that the rise of regional parties from the late 1970s onwards reflected the complex reality of this 'rural' bourgeoisie more accurately: By the 1980s, if not earlier, it was clear that the character and aspirations of this class were no longer exclusively rural. While the original wealth of this segment was certainly in the land, any visitor to one of the scores of bustling mid-sized towns and cities of India can tell, their investments are not confined to agriculture:

> A typical family of this ....class has a landholding in its native village, cultivated by hired labour, bataidars, tenants or farm servants and supervised by the father or one son; business of various descriptions in towns – trade, finance, hotels, cinemas and contracts managed by other sons: and perhaps a young bright child who is a doctor or engineer or maybe even a professor at one of the small town universities that have sprouted all over the country over the past two decades.[63]

It was, therefore, not so much an agrarian bourgeoisie as what Balagopal rightly called a 'provincial propertied class'.[64] The regionalisation of Indian politics, reflecting the states-focused power base of this new segment of the bourgeoisie, which has become so settled a pattern by the 1990s, revolved as much around demands for more industrial development in the regions, as greater support for agriculture.

Recently Prabhat Patnaik et al[65] identified further instalments into the Indian bourgeoisie which while not adding to their numbers in the way the provincial/agrarian bourgeoisie did, significantly added to its heterogeneity and changed its character: a small number of entrepreneurs – medium industrialists – associated with the expansion of the energy and petroleum sectors in the mid-1970s to the mid-1980s which was distinctive in using "political connections ruthlessly and pursu[ing] an extra-ordinarily high risk strategy in contrast to the established older business houses"; and, with the gulf boom, the rise of the "non-resident Indian" (NRI) businessmen who were specifically "not production based...but...intermediaries: working out deals, fixing contracts, engaging in trade, above all in the burgeoning arms trade, and acting as a front for large MNCs, in particular arms manufacturers".[66] They also mention the resurgence of a financial sector from the remains of the banking community hit by the nationalisation of banks in 1969 through the new life breathed by deregulation into the stock market in the 1970s. Clearly the size, sectoral composition and orientation to the national state of the propertied classes of India has changed radically in the decades since independence. The class coalition between the big bourgeoisie and a landlord-peasant landed elite had been replaced by a single uniformly bourgeois class, albeit one of 'segmented' composition and even conflictual texture, a reality Patnaik and his colleagues marked by designating the process through which the class expanded as 'the proliferation of the bourgeoisie'.

At independence the (big industrial) bourgeoisie was identified with the 'Bombay Plan' as the blueprint for India's industrialisation. The unravelling of that strategy by the late 1960s brought slow but progressive deregulation of the Indian economy and a spurt of growth aimed at the absolutely enlarged but relatively narrow bourgeois market. While it is the import intensity of this pattern of industrialisation which led to the need for IMF loans in 1991 which, in turn, brought a drastic acceleration of deregulation, the shift towards external liberalisation and tight fiscal and monetary policies,[67] this change in economic policy is not without domestic bases of support which Patnaik and his colleagues were seeking to map. They argued that all sections have, by and large, favoured the contraction of the public sector which expanded the space available for their operations. However, for the rest "different sections of the bourgeoisie support different parts of the [liberalisation] programme, with some of them having reservations of varying degrees about the other parts".[68] Choosing the expand abroad, and hoping to secure the firm's interests domestically through behind-the scenes manoeuvring, big business has not opposed import liberalisation. The agricultural bourgeoisie though regretting cuts in subsidies, looks forward to the prospects for agricultural exports. Only NRIs support the programme in all its aspects. Thus, Patnaik et al argue, the proliferation of the bourgeoisie robs it of a common interest which would be the basis of any alternative to the IMF/World bank programme. Despite serious problems which are sure to plague the economy due to this type of programme, in particular deflation, there is no bourgeois alternative today.[69] They see hindutva's vacillation on the issue of globalisation as precisely reflecting this ambiguous configuration of interests and possibilities. The Indian bourgeoisie is developed to a relatively high degree and, while the BJP's rhetoric of national self reliance, of swadeshi, captures the ambiguity which such a bourgeoisie is bound to have about the recessionary consequences of these policies and the gaps in infrastructure development it leaves. However, Patnaik et al may yet overestimate the extent to which the Indian bourgeoisie, and hindutva acting as its political representative, may be able to

assert any distinctively Indian capitalist interest against metropolitan capitalist interests. The historic reliance of Indian capital on foreign technology, and therefore also on foreign finance, likely as not to become more acute upon the full convertibility of the rupee, has only become the sharper as the industrialisation path has become dependent on serving a set of internationally savvy consumers. Certainly the recent record of all three bourgeois political forces – the Congress, the United Front and the BJP – does not inspire confidence. In fact, it may be questioned whether an Indian, and more generally a national, capitalist interest even exists. Even those who have tried to argue that such an interest in retaining distinctive national (productive) configurations exists among the much more advanced industrial capitalist bourgeoisies such as the Japanese and the German are less than convincing because they fail to take into account the extent of the subordination of these hitherto distinctive productive formations to (now global) finance and the consequent worldwide bias towards deinstitutionalisation and marketisation on the model of the US and the UK under financial imperatives dictated by liquidity rather than productive ones dictated by efficiency.[70]

But if a bourgeois front against imperialism is lacking, the one against political assertion of workers and poorer sections from below is certainly not. And hindutva is the bourgeoisie's most resolute domestic face. Jayant Lele situates the rise of hindutva squarely in the erosion of the Congress hegemony. The dispersed and localised hegemonies of the rural landed dominant caste elites reliant on the residues of their pre-capitalist 'patriarchal-patrimonial' power, in short their dominance, dissolved with the commercialisation of agrarian relations[71] and with the diminution of the opportunity structures of the minimally welfarist state. This crisis of authority in the countryside has brought forth an authoritarian response given, on the one hand, the lack of state resources to prevent the minimal upward mobility among the lowest castes and groups from appearing to eat into the privileges of the increasingly ambitious propertied, and on the other, the caste subordination and expectation of deference upon which the backward capitalism of the Indian countryside would still rely to achieve required levels of super-exploitation. It was the key to what Lele called 'the ruralisation of neo-Hinduism',[72] without which hindutva would have remained electorally insignificant, confined to its northern and western urban petty bourgeois base.

Hindutva replaces the localised structure of hegemony, vertically linked through the Congress which had thus presided over a still residually pre-capitalist social formation with a famed tendency toward vertical – ethnic, caste, etc, – mobilisation with one which reflects the class-mass structures of a capitalist society, without, moreover, a significant left challenge at the national level. It works, like all cultural nationalisms, by identifying the nation with the dominant identity within it – in this case the 'Hindu' bourgeoisie – and formulating all problems as threats to the nation so defined as originating in more or less demonised minorities. Given brahminical Hinduism's elite character, these can include 'Hindu' recalcitrant subalterns when necessary. It is both unnecessary as well as improbable that this formation should reach particularly deep into the subordinate social strata ideologically when they can be controlled through judicious combinations of the dull edges of police lathis and the 'dull compulsions of economic relations' on the one hand, and on the other, co-optation and opportunistic alliances with their political representatives if politically disorganised and tenuously accountable, and marginalisation, if organised and resolute. It is important, however, that hindutva seek to consolidate the national bourgeois class, compensating for its economic segmentation with a cultural integration and endow it with clear purposes and reflexes (particularly against challenges from below) – in short, an (authoritarian) identity.

Never entirely 'imagined', 'nightmared-up', cultural nationalisms also draw on established cultural dynamics. Lele correctly sees hindutva as 'neo-Hinduism': a further development of the historically refined hegemonic impulses of brahmanism (the elite hegemonic tradition whose ascendance in the group of religious traditions usually termed 'Hinduism' has always been predicated upon imposing a unity, however fictitious, upon them). Taking its present form under colonialism as the "postulation of a distinct Hindu community... hindutva as a quality or property of [the brahmin comprador stand-in for the national community...in competition for the meagre resources of a colonial state] was a nationalistic reconstruction of the dynamics of Indian tradition, as a linear evolutionary, inclusive homogenisation".[73] The historical memory of successive challenges to it over its long history, is repressed by transforming them, through none-too-consistent (but never mind!) absorption, into 'Hindu' traditions.

Socio-politically, the numerically important provincial bourgeoisie based in peasant lower castes, Shudras, showed some inclination to oppose hindutva as a brahminical, upper-caste movement. This alternative to hindutva would, however, require an alliance between these landed elites and the poor and lowest caste agricultural labourers which has foundered, in UP, for example, on the obvious class contradiction. Moreover, the potential of shudra anti-brahminism relies on caste identities and ties which are already corroded by commercialisation. Compared to the all-too-well-trodden path of ritual upward mobility which legitimises the brahminical order and which is, moreover, being stridently revived and modernised by hindutva, its attraction for upwardly mobile shudras can be questioned. Thus although the regionally-based parties of the provincial bourgeoisies seemed to constitute, for a while at least, the chief if still bourgeois opposition to the forces of hindutva as the United Front coalition of regional parties orchestrated by the CPI(M),[74] the support later provided by some of the same provincial parties to the BJP government as much as the BJP's own further advances in its traditional strongholds and new inroads into other regions, show clearly how this class remains open to the wooing of hindutva. Even farmers' movements in western Uttar Pradesh, whose constituencies include large proportions of Muslims, have been ambivalent in their relationship to hindutva.[75]

Violent religious mobilisation and frenzy directed by secret fascistic organisations are the most visible, indeed, spectacular, strategies with which hindutva has recently sought to expand its appeal and many critical analyses are right to focus on it for the possibilities it represents are frightening in the extreme.[76] However, as argued above, the fortunes of hindutva must also be seen as determined by the entirely secular and contemporary (late 20th century) requirements of reconstituting a hegemony of the propertied whose Gandhian/Congress structures have disintegrated, overtaken by events. Hindutva's task is now different on two main counts: first, in contrast to the agglomeration of localised identities which made up the Indian nation, it must now construct a more unified pan-Indian hegemonic identity of a much larger, uniformly bourgeois class whose commercial and (familial) proprietary links stretch from the villages to western metropolises, and second, that in the circumstances of the effective abandonment of redistributive and even marginally welfarist

development, it must now take on a distinctively authoritarian form. The bourgeoisie is already, therefore, favourably inclined to hindutva. At the same time, hindutva's political fate yet depends on its ability to accommodate itself to the bourgeoisie's contemporary contours and imperatives by constructing an updated political hindutva. This is an ongoing task in which, along with many others nominally outside hindutva, Nandy is lending a hand. It makes any portrayal of hindutva as a once and for all formed force, rigid and unchanging, inaccurate.

Mirroring the Bourgeois Mind

Like the neo-Gandhianism of which it is a part, Nandy's ideas on culture and politics began to take shape with the political arrival of the Indian bourgeoisie in the mid to late 1970s. He has dismissed everything he wrote before that as irrelevant.[77] Nandy speaks as a member of this class in conversation with other members. Indeed, the many claims and assertions in his work which are avowedly casual hearsay seem to suggest that one of his more important research activities consists in after-dinner conversation over drinks![78] In its style, his writing resembles the new stream of cultural and political commentary in the English language press – intellectually undemanding prose with indulgent rhetorical flourishes, in which assertion takes the place of argument, and the convenience of the moment, of accuracy. Its defining themes – fashionably neo-Gandhian and anti-Nehruvian – are also Nandy's.

Ranging freely over subjects and disciplines whose unknown swathes seem never to constitute embarrassments, citing authorities, mediocrities and friends with even-handed profuseness, Nandy offers to domesticate social, political and historical knowledge within the narrow compass of bourgeois concerns. While ostensibly speaking of culture, society and politics, psychologist by training, learning his social science on the hoof as it were, at the CSDS, these amount to little more than (pop) psychology. What he dares to call social or political psychology actually seems to involve a focus on individual figures as convenient stand-ins for historical phenomena and processes. This approach, routine even in his allegedly scholarly essays, communicates even the vaguest of notions to his audience fairly effectively while also pandering to its narcissism as one historical figure after another, both likely and unlikely – M N Roy and D D Kosambi as much as Tagore, Gandhi and Savarkar – are attractively and comfortably assimilated to the growing identity of the contemporary Indian bourgeois.

While slippages, self-contradictions and inaccuracies characterise dominant cultures generally, powerfully flouting rational constraints on their wishful self-images, in Nandy's discourse, these become instances of a fashionable 'transcendence' of social science, 'mythmaking' (whose content, nevertheless, seems derived from sectors of social science especially chosen for their vulgar positivism!). This is not the only way in which Nandy evades responsibility for the views he expresses: never having set out his views systematically,[79] he claims to have been interested in making limited points – 'Let others debate it; the thing must be opened up'.[80] In a fashionably lax intellectual climate this cavalier style hardly touches Nandy's scholarly affectations, even as his role as a spokesman of the bourgeoisie is enhanced by them.

With Enemies Like These...

Some of Nandy's claims to oppose hindutva are clearly specious: for example, he claims that his Christian identity is proof against pro-hindutva inclinations. Quite apart from the tokenist non-Hindu, including Muslim, presence in the BJP, this ignores his own argument that the congruence between faith and political allegiance is far from complete and certainly the Hinduism of the proponents of hindutva itself, particularly questionable. Hindutva is about the construction of a particular sort of authoritarian and majoritarian cultural nationalism. While, in India, it must derive its themes from Hinduism, it is a secular political enterprise and members of religious minorities, whether as individuals or even, in certain instances, as leaders of minority organisations, can and do play a role in it.

Another part of his 'opposition' to hindutva is feigned by constructing a caricature of conservatism so exotic that the pervasive garden-variety of this political persuasion becomes harder to recognise. Nandy sees conservatism as a form of thought which "openly legitimises violence, greed and dominance".[81] In fact, conservatism relies on an appropriation of the authentic popular longings (for community, equality, liberty, among other things) even while it must necessarily distort these to legitimise existing relations of domination. (For example, no patriarch or sexist, to my knowledge – barring sadomasochism – has ever justified the domination of women as anything but good for them!) nineteenth-century anti-liberalism was parasitic on liberal ideals. The 20th century has seen conservatism and authoritarian reaction appropriate ideas of democracy and socialism, travestying them in theory and practice. In fact, like contemporary postmodernism, Nandy distils out of the long history of modern conservatism its essential anti-enlightenment character: the enlightenment is the root of the evil of modern social intervention; 'modernity' an incredible arrogance against 'tradition'; Reason, fanatical neurosis; liberalism, a hypocrisy; science, a form of ideological domination; history, tyranny; secularism, anti-religious zealotry and, of course, socialism little more than a caricature of Stalinism. Finally, like postmodernism and post-structuralism, Nandy also appropriates dissent, like democracy, liberalism and socialism hitherto, to the right-wing purposes of majoritarian cultural assertion which needs to appear oppositional.

Similar caricatures of fascism and fundamentalism, and relatedly of hindutva itself, are refracted through the framework of his Manichean opposition between 'tradition' and 'modernity', the one uniformly humane and benign, the other irredeemably oppressive.[82] It is not these *per se* but their 'modernity' which Nandy opposed. Given Nandy's construct of the 'modern', this means, not surprisingly, that critique is (mis)directed at only their wildest, most extreme and exoticised forms. At the same time, this 'opposition' to 'modern' fascism, fundamentalism and hindutva also serves to render them all acceptable in their more contemporary (postmodern?) and everyday versions. For example, portraying Fascism as essentially a hysterically exterminist 'modern' pathology serves to occlude its essential and far more routine and unexotic, but hardly less pernicious, authoritarianism and anti-Communism.[83] Or fundamentalism is caricatured as "usually identified with one or more texts which, rather than the ways of life of the believers, then become the final identifiers of the 'pure' forms of the religions".[84] Such a definition of fundamentalism, ostensibly based on Islamic and Christian 'fundamentalist' movements, has already benefited hindutva through unwarranted favourable contrast. But such a definition fits no actually existing fundamentalism.[85] Hinduism may indeed not have a single 'Bible' or 'Koran', but precisely like any other 'fundamentalism', hindutva claims the authority to definitively interpret and define the meaning of certain (often only purportedly) widely-held beliefs. Whether or not they come from textual sources

(and, in any case, even a single text has many interpretations) such authoritative interpreters also prefer to operate under as few constraints of logical or textual consistency as possible to cover for unforeseen imperatives.

However ostentatious Nandy's rejection of ('modern') fascism, fundamentalism and hindutva, one would have to be captive of a rather extreme form of nominalism not to see that amidst such distantiation from unsavoury labels, their substance is being redeemed and reconstructed by shedding unacceptably 'modern' and dated elements – such as statism and the unfashionable emphasis on assimilation – under the sign of all that is acceptable – 'tradition'. As 'tradition' hindutva can appear intrinsically and wholly humane (since Nandy's 'tradition' can have no oppressive elements). Its elite authoritarian brahminical character is not only obscured, it is positively cast as humane and progressive. In this form it will have far greater chances of ideological success among its bourgeois constituency, without sacrificing the essentials of hindutva – a majoritarian cultural assertion of the Indian bourgeoisie, deeply rooted in the historical dynamics of the Indian brahminical elites. While unquestioning of Indian capitalism's subordination in the global hierarchy of economic power, it is armed against (definitionally alien) challenges from below. Moreover, the irrationalised conception of 'tradition' which is operationalised in the Indian context to great effect – with no little help from brahminical and Orientalist sources – adds another feature convenient for authoritarianism: allowing this class to make up its hindutva as it goes along. All this is accomplished while making this hindutva sound progressive as, after all, any self-respecting bourgeois ideology ought to sound even if, in a 'postmodern' age, it must do this by claiming to be 'traditional'!

A Hindutva by Any Other Name...

How Nandy helps build political Hindutva is most clearly evident in his interventions in the debate over secularism, the chief political and intellectual debate sparked off by the rise of hindutva. Hindutva challenges Indian secularism theoretically and practically, adversely affecting the ability of India's state structures to effectively uphold this constitutional commitment. Secularism in India entails keeping the state impartial not only in its dealings with citizens of diverse faiths but also in those with major religious institutions and practices which are fairly extensive for colonial as well as more broadly historical reasons. Indian constitutional theory also hoped that development, guided by the state, would secularise Indian public life, making these issues less contentious. In practice, of course, the state has not stood up well for these ideals. But it is not because it has leaned over backwards to 'appease' minorities as hindutva and neo-Gandhianism[86] have argued. Rather the mostly legislative instances of this which have been so often been marshalled in evidence, scanty enough as they are, are the high-profile tokenistic counter-examples to the all-too-routine, lamentably unremarkable majoritarianism embedded in the every-day practices of state structures on the ground. As a majoritarian force, pitted against 'special treatment' for minorities, hindutva, helped by neo-Gandhians, gives these counter-examples an unwarranted prominence. Moreover, instead of demanding a more consistent secularism, they argue for various degrees of rejection of it.

Nandy argues, using his 'tradition-modernity' distinction, that the 'modern' phenomenon of hindutva (and Communalism generally) and the modern values of secularism must be seen not "as sworn enemies but as disowned doubles of each other".[87] 'Modern' hindutva is a mercenary, professionalised riot-mongering, based on coldly calculating 'misuse of religion'.[88] This looks like 'opposition' to hindutva only so long as one ignores the fact that even the votaries of hindutva (like, barring perversity, everyone else, one supposes) claims to oppose the instrumental use of religion by religious fanatics as an ideology "protecting non-religious, usually political or socio-economic interests".[89] After all, the mob's destruction of the Babri masjid was, for the BJP, an act of a 'genuine faith' which 'overwhelmed' it, to take only an extreme example. Or to take another, Advani repeatedly disclaimed any responsibility for the riots which so murderously trailed behind his rath yatras . After all he had also been engaged in an act of 'genuine faith' which could not possibly have anything to do with these 'modern' pathologies.

At the same time, Nandy's 'anti-secularism' must also insist that secularism in India has 'gone too far'. Theoretically both Nandy and the BJP promote caricatures of 'western' secularism as the irreligion of 'westernised' elites which would attempt to root out religion from public life completely or would attempt (as Nandy occasionally argues in a more nuanced vein, presumably when he feels better disposed towards these elites) to vainly implant "religious tolerance on the good faith or conscience of a small group of de-ethnicised, middle class politicians, bureaucrats and intellectuals".[90] "[T]he old ideology of secularism" is "not working in India"[91] because secularism is a western concept, unsuited to the Indian genius, whose deep religiosity needs to be publicly and politically expressed: "democratisation itself has put limits on the secularisation of Indian politics. These new entrants ['average Indians' pitted against 'anglo-crats'], coming from what was until recently part of the ethnic 'backwaters' of India, have given Indian democracy its power and resilience".[92]

Between the 'opposition' to 'modern' hindutva and opposition to secularism the claims of actually existing political hindutva are conceded: religion/culture must be part of any acceptable humane and tolerant polity. The implication is clearly majoritarianism, in India, hindutva. And majoritarianism, as always, comes clothed in the rhetoric of democracy. Nandy's views encourage a religious majoritarianism exactly like the BJP's call for Hindu assertion. Both bear on the everyday practices of the Indian state. It is "absurd... [Nandy argues]... that in a democracy people had political rights to choose their rulers but not to bring their cultural selves into the political arena".[93] India's rural hinterland, untouched by modernity, beyond the "reach of modern communications"[94] is populated by those who (presumably like Roop Kanwar's murderers) "refuse to be placated by the fact that they have democratic rights; they want to exercise the right to protect or actualise their diverse visions of a free society... To the majority of Indians, freedom seems inseparable from participatory democracy."[95] And anti-secularism licenses the 'religious' sources of majoritarian hindutva's content, while also enabling an attack on the very idea of secularism in the name of "'true' religion and 'true' culture which...[are]... definitionally tolerant of the other religions and cultures"[96] and contrary to the 'western' concept of secularism, can be a force for good. Like hindutva, Nandy alleges that Indian secularism has failed to promote good inter-community relations precisely because of its excesses. Neither particularly distinguished for consistency, both would also claim to be 'secular' if secularism means the religious tolerance which is inherent in all 'true' religion.

Needless to say, Nandy's native sympathies with hindutva are not always

filtered through the 'traditional/modern' dichotomy. They often reveal themselves in grimmer, less processed forms as when he argues that even the wilder forms of hindutva, which he would otherwise condemn, are unfortunate but understandable reactions to the excesses of secularism. "Many distorted or perverted versions of religion circulating in modern or semi-modern India owe their origins to this perception of the triumph of secularisation, rather than to the persistence of traditions".[97] These justifications sound like nothing so much as swaggering threats of Hindu nationalist retaliation against secularism: "If the religious way of life cannot find a normal play in public life, it finds distorted expression in fundamentalism, revivalism and xenophobia".[98] Such broadly political majoritarian assertion now openly licenses the hitherto shame-faced discriminatory practices of the Indian state against minorities (including lower castes). They are arguably more effectively repressive than most laws which the Indian state, given its enforcement record, may choose to enact, even under a BJP dispensation. Ramshackle fascisms, like that of inter-war Italy, are also just as murderous, if more haphazardly so. The possibilities of legislative assimilationism look, in any case, rather dubious. Hindutva's charge that Indian secularism is a 'pseudo-secularism', primarily 'appeasing minorities', drew substance particularly from the infamous Shah Bano controversy. When fundamentalist Muslim opposition to a Supreme Court judgment giving divorced Muslim women (minimal) maintenance led a spineless Congress government under Rajiv Gandhi to enact legislation nullifying the effect of the judgment, it was held up as paradigmatic of the 'secularism' of the Indian state and 'secular' liberal and left currents. This anti-minorityism seemed, rather improbably, to associate hindutva with a 'genuine secularism'. Nandy's attack on this 'modern' pose of hindutva – "I accept the self-definition of the genuine secularists simply because their world is entirely secular. They use religion rationally, dispassionately, and instrumentally, untouched by any theory of transcendence. They genuinely cannot or do no grant any intrinsic sanctity to the faith of even their own followers"[99] - reminds hindutva that its cache of credibility, religion, cannot be abandoned but at its own peril. In practical terms this position came to refer to hindutva's long-standing majoritarian demand for a uniform civil code replacing the maze of 'personal codes' which presently govern family matters such as inheritance, marriage, divorce, adoption, etc, for each major 'religious community' (and as such form the legal mainstay of Indian patriarchy). It is feared that if enacted, this would essentially mean an imposition of the majority personal code upon the minorities. But this may be a position which political hindutva may in any case have to evacuate. Nandy clearly sees why: This sort of assimilationism might turn out to be no different from secularism. Under both, quite apart from the certainty that the minorities would be forced to give up at least important aspects of their 'religious' practices, "what is in store for the... minorities in the long run is no different from what is in store for the... majority in the long run. Both become objects of social engineering and both face cultural extinction."[100] Quite. The right's culturalist strategies would be impossible without particularity: indeed, for it, culture is particularity. Political hindutva is much better off claiming that "India is secular because it is Hindu". Much like western multi-culturalism, it is an assertion of "respect for the Other's specificity [as] the very form of asserting one's own superiority".[101] Moreover, leading feminists and women's groups have raised uncomfortable questions about gender justice to whose appeal, given the rather glaring gender discrimination embedded in Indian law, even the BJP's own female constituency may not be immune. They must be discussed if any legislation in this area is to be contemplated at all.[102] However, the class which hindutva seeks to represent needs only an anti-statist rhetoric to avoid having to account for its 'traditional' patriarchal practices, which are actively part of both accumulation and cultural entrepreneurship, not an overbearing state to 'reform' them – religiously or secularly!

Below the surface of the diverting shadowboxing between 'modern' hindutva and 'true' 'tradition' or 'religion' lie the other services Nandy performs for hindutva – constructing a Hindu, brahminical and irrationalist identity of India's bourgeois ruling class and defining the modes of its authority. The Indian bourgeoisie is, after all, the chief object of Nandy's discourse. He has "focused on middle-class consciousness in South Asia and tried to locate the basis of the global mass culture in societies that have rich cultural traditions of another kind".[103] In doing so he reconfigures this bourgeoisie's boundaries. Practically all of Nandy's psychologistic writing – whether it purports to be about science or terrorism – is actually about the kind of self his bourgeois audience should have (which is why he sounds so much like another Indian guru, selling his own brand of Karma-Cola). Nandy exhorts the bourgeoisie to move from one (old,' modern' and secular) self to another (new, 'traditional' and religious). The 'old' identity of the middle class, the skin which it must shed, so to speak, is the urban westernised English-speaking middle class, with statist, developmentalist, liberal and socialist proclivities in short, with 'colonised' minds. In contrast to them, he speaks on behalf of the 'average Indian' who is no less than the above average (high-caste, brahminical, bourgeois) Hindu!

For Nandy collapses the Indian into the Hindu. Exploiting the advantages which the dominant western orientalist and anti-Semitic (in the Indian context, anti-Islamic) discourse have long given to Hinduism (today enjoyed also by hindutva), Nandy sees Hinduism as containing and being open to the most diverse impulses. It is therefore tolerant, flexible while Islam, by contrast, is inherently intolerant. (And he asks, how can an intolerant proselytising faith co-exist with a 'tolerant' one?[104] Part of Nandy's objection to received 'modern' hindutva is that it aims to 'Semitise' and modernise Hinduism, making it "monolithic, well-organised and capable of being a sustaining ideology for an imperious state.")[105] When Nandy makes an exception of Indian Islam, it is only by considering it as an essentially 'Hindu' faith because the common frame of that composite of cultures – Indian civilisation – is Hindu. Sweet music to political hindutva's ears! The consequences are not hard to draw: while we may not be required to say 'with pride' that we are Hindus (as hindutva currently demands), we may be asked to say equally aggressively that we are Indian or Bharatiya with substantially the same disagreeable consequences.

The content of this new 'Indian' identity is not only Hindu, but brahminical. And in its modern form, as constructed by the comprador brahmin colonial elites, and as refashioned by Gandhi, brahminism, which also derives from Orientalist frameworks, is all the easier to infuse with the irrationalist content characteristic of authoritarian tendencies generally. Although the advocacy of caution is perhaps the 'rational' kernel of conservatism as the 'Philosophy of Imperfection',[106] for the most part, conservatism has always been allied with forms of irrationalism (purportedly "to reflect the irrational order of creation"[107]), reaching gruesome heights in European fascism with the

elevation of irrationalism to the status of a political absolute in 'decisionism'.[108] Nandy's irrationalism lies in the notion of 'critical traditionalism' in which not only is the adjective redundant, as we have seen, but in line with modern brahminism, 'Indian tradition' is simply opposed to rationality. For the "linear evolutionary inclusive homogenisation" of the actually conflictual 'Hindu' history, had featured the challenges to it throughout its history as (appropriated) moments internal to the tradition. The 'Hindu' tradition was now constructed as "a syncretic all-encompassing absorber of multiple impulses, a sponge that could absorb anything and yet retain its core....[constituting] an Indian mind that abounds in contradictions, ignores canons of logic and the rules of cause and effect and labels and categorises things without going on to search for analytical explanations".[109] The "vagueness, chaos, deliberate obfuscation and inability to close up conceptual boundaries" which characterise the 'traditional Indian' mind[110] as conceived along the same brahminical lines by Nandy provides the concrete content of the irrationalism of his political hindutva. This irrationalism dispenses with any need to impose impossible standards of piety or cultural conformity among hindutva's public figures, and invests them with a staggering amount of discretion, including on the question of what does and does not constitute 'Indianness'. Any updated and revised hindutva should also be free from the accusation of its being another persecuting 'ideology' or metanarrative and the 'traditional' intellectual style which Nandy attributes to this conception of 'Indian' tradition also serves this purpose well: 'non-modern' intellectuals accept eternal verities and seek only to interpret and enrich them, eschewing utopias as forms of social engineering or conceptions of 'error' as instruments of prosecution.[111] Although tradition is also 'totalist, Nandy minimises its dangers by claiming that this totalism was 'Sisyphean'...informed by a touch of futileness'.[112] Nandy's 'critical traditionalism' is nothing less than the dark secret of all reactionary authoritarian ideologies, unaccountable power with a 'totalist' scope.

Conceptions of identity govern group membership and Nandy makes sure to accommodate the bourgeoisie's new elements. The 'average Indian' – traditional, rural, vernacular and beyond statist, developmentalist or socialist sophistry, is now 'a strong minority...a very sizeable presence'[113] who is also, he has suggested, 'Bharat' versus 'India'.[114] This obviously caters to the numerically most important segment of the Indian bourgeoisie. Not so much an 'agrarian bourgeoisie', having a common interest against urban, modern, westernised India, as a provincial propertied class, its spokesmen and women are nevertheless "most vocal about injustice done to 'villages'.... in the staff rooms of our provincial universities".[115] But their conversion into a provincial propertied class objectively resolves much of the more extreme intra-bourgeois frictions – opposition of agrarian and industrial interests – and by assimilating them to itself political hindutva can now deploy their rustic rhetoric less as a demand against industrial and urban segments and more as a myth of agrarian 'traditional' origins. This populism views the 'traditional' village, much like Nandy, as a harmonious organic whole, without exploiters or exploited and can serve as the chief myth of the authoritarian nation, delegitimising cleavages within it while remaining, like all populisms and the economic interests they speak for, within the framework of the capitalism into which their constituencies are deeply imbricated. Finally, given the largely cultural definition of 'Indianness', membership of the nation, according to political hindutva is no longer a matter of citizenship and has an important global or diasporic dimension. While Non Resident Indians (NRIs) who retain their Indian identity because "they resent the idea of merging into the mainstream"[116] can now be considered more or less Indian, certain sections of the nation – liberal, socialist or feminist, that is to say 'unindian' and 'westernised' – can be othered as 'resident non-Indians'.

The psychology of the transition from the old to the new bourgeois identity according to Nandy is especially revealing: the modern self is adult, masculine, intolerant and rational, culpable in the destruction of cultures and environments. The 'traditional self' is childlike, feminine, tolerant, innocent and non-rational. The latter must be revalued, as Gandhi did, and owned up to. This is 'true' adulthood. But rather than a reversion to childhood, it is a graduation to "the 'authentic innocence' psychoanalyst Rollo May speaks about, the innocence which includes the vulnerability of a child but which has not lost the realism of its perception of evil or that of its own 'complicity' with that evil".[117] This makes nice work out of the uncomfortable questions all the harping on 'tradition' could raise for a bourgeoisie as zealously consumerist and jealously protective of its modern conveniences and comforts as they come. No strenuous renunciation of these modern 'evils' is necessary. Rather, the bourgeoisie can contemplate them, and its own complicity with them, as the steps it mounts towards more or less angst-ridden 'authentic innocence'! The psychodrama also accepts that, so long as the new 'traditional' self remains in control, even vehemently despised aspects of the old self need not be eliminated, only subordinated – they are bound, presumably, to be of some use: Nandy's opposition to the whole range of his 'modern' targets – science, rationality, history, development, the state and so on – is therefore frequently expressed in the way of a magnanimously knowing indulgence of juvenile folly.

Finally, aware that '[n]o hegemony is complete unless the predictability of dissent is ensured and that cannot be done unless powerful criteria are set up to decide what is authentic, sane, [now ir-]rational dissent'.[118] Nandy does not stint from offering political hindutva an eminently serviceable set of such criteria with which to both 'predict' and 'control' it.[119] The predictable and therefore acceptable forms of dissent, 'genuine' dissent, is autochthonous, unaided by inauthentic forces, ideologies and monies. It is childlike, individual, isolated, hopelessly incompetent and ultimately unable to act against the elites. Nandy's essay on the terrorism of the early 1980s elaborates on this: the 'genuine' terrorist is typically a raw youth with barely the beginnings of a beard, pathetically ignorant of modern weaponry, desperately committed to heroic action in the service of the cause. He may hijack a plane, shockingly underequipped though he may be, through the sheer force of devotion, will and a native ingenuity. But then he melts when confronted with his real victims: bringing milk and biscuits for the kids and refreshments for the ladies, pleading for understanding of his cause. In the end, everyone is released unharmed though the self-aggrandising state deals too roughly with the poor fellow. With such dissent, it would seem, a hijacking is an event in which great fun is had by (almost) all! It is possible, at one level, to recognise here the need of the Indian bourgeoisie to believe that despite the grinding poverty of millions in India, despite the disappearance of the structures of reciprocal obligation which once can be said to have bound oppressor and oppressor in a bond of some minimal legitimacy, that 'they' are actually post-colonial Gungadins who wouldn't harm us (and couldn't, even if they wanted to) unless provoked and armed by 'outside' elements and provocateurs. And this is the point, since this is 'genuine' dissent, everything which does not fit this picture is not genuine, is provoked by outside (non-

Indian) elements and must be dealt with firmly. What could these be?

One need not read too much of Nandy before one encounters his numerous attacks on the ideology of Nehruvian developmentalism, liberalism and socialism construed as the 'anti-people' ideologies of 'unindian', 'over-westernised', 'secularist', 'socialist', 'liberal', elites. These attacks can be shockingly venomous: Not satisfied with dismissing the Left as "a letdown – often even pathetic",[120] Nandy attacks it, as well as all liberals, secularists and socialists for being 'eager to fight [*sic*] the cause of Secularism to the last Muslim or Sikh' because they not only have an 'irrational commitment to rationality' but also harbour 'a certain glee at the persistence of religious belligerency'![121] His declared aim is to save India from the clutches of such elites which, like most other southern countries, it had the ill fortune to fall into upon independence, missing the opportunity to realise its authentic traditional culture. Politics cannot be governed by these elites any longer. It has 'become the real pace-setting system'.[122] They should no longer be allowed to claim that "working among the tribals and the rural poor ...[is] .. romantic Gandhian obscurantism....ethnic demands [are] identified with fundamentalism, and all peasant movements...the self-assertion of Kulaks".[123] Thus owning a certain type of dissent and disowning another, India can be made safe for participatory (cadre and lumpen mobilising), 'traditional' (brahminical and irrationalist) cultural (religious, anti-secular), democratic (majoritarian) politics suited to India's "chaotic political reality".[124]

Notes

[Parts of this paper were synoptically presented at the International Conference on South Asia, 'India and Pakistan 50 Years of Independence. Assessment and Prospects', Carleton University, Ottawa, August 1997 and appeared as "The Intimacies and the Enmities Shades of Saffron in Ashis Nandy" in Reeta Tremblay et al (eds), *Interfacing Nations*, B R Publications, New Delhi, 1998 Others, concerning the understanding of the Hindu Nationalism in modern Indian politics and history for a book on the subject, were presented at the European Association of South Asian Studies Conference in Prague in September 1998.

I would like to express my deep gratitude to Jayant Lele. It will be obvious that the argument below relies significantly on his path-breaking, and still ongoing interpretation of hindutva Having also benefited from his friendship, encouragement and conversation over the years, my responsibility for the flaws which undoubtedly remain will be even heavier. I would also like to thank Chris Schimmele for his help with a part of the research.]

1 Theories and ideas about culture which conceptualise it as disembodied rather than incarnated in society's material – productive and reproductive – processes are culturalist. They now far exceed any reaction to "vulgar materialism" and thrive in ever closer symbiosis with the long-standing idealist traditions of the dominant culture whose sophomoric "cultural determinism" they reinforce with pseudo-radical terminology.

2 Muller, Jerry, 'Introduction', *Conservatism: An Anthology of Social and Political Thought from David Hume to the Present*, Princeton University Press, Princeton, 1997.

3 Georg Lukacs, *The Destruction of Reason*, Merlin Press, London, 1980, Tr Peter Palmer.

4 Sarkar, Sumit (1997), 'The Decline of the Subaltern in Subaltern Studies', *Writing Social History*, Oxford University Press, New Delhi.

5 Vanaik, Achin (1997): *The Furies of Indian Communalism*, London, Verso, Ch 4, and Sarkar Sumit (1994), 'The Anti-Secularist Critique of Hindutva: Problem of a Shared Discursive Space', *Germinal*, Vol 1.

6 Modern parties of the right, parties of the propertied few, have not only had to resort to complex ideological and organisational ruses and devices in what Andrew Gamble called their "politics of support" (*The Conservative Nation*, Routledge and Kegan Paul, London, 1974), but are also complex coalitions of different kinds of property and capital The class of small property being the only genuinely popular element in this coalition, the maintenance of the coalition requires that its interests be harmonised with those of big capital. It is possible to argue that the current turbulent phase in the evolution of parties of the right, particularly in advanced capitalist countries, is precisely due to the lack of such harmonisation and the emergence of various populist revolts

7 It was already apparent in the mid-1980s heyday of Thatcherism as I show in 'Second Hand Dealers in Ideas: Think-Tanks and Thatcherite Hegemony', *New Left Review* 203, January-February 1997, pp 58-59. See also Andrew Gamble's pithy dissection of the pre- and post-Thatcherite discourses in the party in "The Entrails of Thatcherism", *New Left Review* 198, March-April 1993.

8 The literature here is too extensive to be cited fully and includes liberals as well as various sorts of socialists. Feminist critiques of both postmodern and post-structuralist currents and their feminist variants have also been notable. One can only provide a select and necessarily subjective list. Juergen Habermas, *The Philosophical Discourse of Modernity*, MIT Press, Cambridge, Mass, 1987; Peter Dews, *Logics of Disintegration*, Verso, London, 1987. Aijaz Ahmad, *In Theory: Nations Classes and Literatures*, Verso, London, 1992, Christopher Norris, *The Truth about Postmodernism*, Blackwell, Oxford, 1993 For feminist critiques,, see Sabina Lovibond, 'Feminism and Postmodernism' and 'Feminism and the 'Crisis of Rationality'' in *New Left Review* 178 and 207, November December 1989 and September-October 1994, Nancy Fraser, *Unruly Practices*, University of Minnesota Press, Minneapolis, 1989, Somer Brodribb, *Nothing Ma(t)ters*, Spinifex Press, North Melbourne, 1992, Theresa Ebert, *Ludic Feminism and After*, University of Michigan Press, Ann Arbor, 1995.

9 Zizek, Slavoj, 'Multiculturalism, or, the Cultural Logic of Multinational Capitalism', *New Left Review 225*, September-October 1997, p 47

10 Nancy Fraser, 'Recognition and Redistribution', *New Left Review*, *217*, July-August 1995.

11 Boris Frankel has recently examined the explicit endorsement by the anti-socialist culturalist 'radical' journal Telos, of the principal themes of the neo-fascist populism of the Extreme Right, such as the French National Front and Italy's Lega Nord ('Confronting Neo-liberal Regimes: The Post-Marxist Embrace of Populism and Realpolitik', *New Left Review*, 226, November-December 1997).

12 A common admiration for the Nazi jurist Carl Schmitt's theories of "the political" unites Telos and the democratic theorist Chantal Mouffe. I have examined the seriously anti-democratic consequences of Schmitt's assertion of axiomatically irreduceable cultural difference, a form of irrationalism, when imported into a theory of democracy, however well-intentioned. 'Fetishizing Phantoms: Carl Schmitt, Chantal Mouffe and 'the Political' in Abbie Bakan and Eleanor MacDonald (eds), *Critical Political Studies: Debates and Dialogues from the Left*, James Currey, Forthcoming.

13 See Martin Barker, *The New Racism*, Junction Books, London, 1981.

14 Whatever the future may hold, for the moment the 'Left' in India still denotes the Communist Party of India (Marxist), CPI(M), the leading party of the left in India, the Communist Party of India (CPI) and other left parties and groups which the CPI(M) leads, in contrast to the necessarily looser usage of the terms now necessary in countries without such a political left.

15 See, for example, David Hardiman's account of this ideological process in Kheda, District, one of the most successful regions of Gandhian mobilisation. ('The Crisis of the Lesser Patidars' in David Low, (ed) *Congress and the Raj*, Heinemann, London, 1977.)

16 There are differences, of course, between Gandhi and the neo-Gandhians which are politically and morally important. It is to Gandhi's eternal credit that he stood, literally physically, by his protestations for Hindu-Muslim unity. However, this should not obscure affinities between his thought and Hindu nationalism, something which could be exploited later by much less scrupulous neo-Gandhians while basking in the reflected glory of his sacrifices. See Richard Fox, 'Gandhian Socialism and Hindu Nationalism' in Sugata Bose (ed), *South Asia and World Capitalism*, Oxford University Press, Oxford, 1990 and P C Upadhyaya, 'The Politics of Indian Secularism', *Modern Asian Studies*, Vol 26, October 1992.

17 See, for example, Jan Bremen, 'Mobilisation of Landless Labourers' in A R Desai (ed), *Agrarian Struggles in India after Independence*, Oxford University Press, Bombay, 1986.

18 See Partha Chatterjee, 'Gandhi and the Critique of Civil Society' in R Guha (ed), *Subaltern Studies III*, Oxford University Press, New Delhi, 1984 and Ashis Nandy, "From Outside the Imperium: Gandhi's Cultural Critique of the West', *Alternatives*, Volume Seven, Number Two (Fall 1981).

19 The preoccupation of Partha Chatterjee's work on Indian nationalism is precisely with the question of whether modern Indian intellectual life, inevitably fitted under the rubric of "nationalism" as the current 'post-colonial' fashion demands, is 'derivative' of western enlightenment discourse. The exceedingly contrived argument placing Gandhi 'outside' the enlightenment is the core of the argument that this strand of nationalist thought, at least, was not. *Nationalist Thought and the Colonial World: A Derivative Discourse*, Zed Books, London, 1986.

20 While Sudipta Kaviraj in his famous essay, 'Critique of the Passive Revolution' (*Economic and Political Weekly*, Special Number, November, 1988) places the responsibility for it squarely in the bureaucratisation of the Indian state, a 'modern', Nehruvian phenomenon, it is at least debatable whether it actually did not lie in the profoundly conservative nature of Gandhi's thought and the elitist nature of his political practice where Gandhi routinely substituted his own agency for that of 'the people', and reinforced local patterns of dominance through his mobilisations. Seen this way, the passivity was originally Gandhian, though it may also have had its Nehruvian forms. *Subaltern Studies* history, and in particular the work of Partha Chatterjee, probably the most intellectually sophisticated strand of this type of discourse, has further elaborated this particularly uncritical stance towards Gandhi.

21 Information in the next few paragraphs has been gleaned from D L Sheth and Ashis Nandy, 'Introduction' in Sheth and Nandy (eds) *The Multiverse of Democracy: Essays in Honour of Rajni Kothari*, Sage, New Delhi, 1996, Centre for the Study of Developing Societies, Research Report, 1964-1974, New Delhi; Saul Mendelovitz, 'Introduction' in Jagdish Bhagwati (ed) *Economics and World Order from the 1970s to the 1990s*, Macmillan in association with the World Order Models Project, London 1972, 'Message from Ashis Nandy (fwd) from Sohail Inayatullah',Http://www.scu edu.au/lists/futures-l 1225.html (hereafter Inayatullah); the *Alternatives* Main Page, Http://www.rienner.com/alt.htm , and a perusal of the back issues of *Alternatives*. I would like to thank Chris Schimmele for his diligent help with this last task.

22 CSDS, Research Report, p 2

23 See, for example, 'Editor's Introduction' in Rajni Kothari (ed) *State and Nation Building*, Allied, New Delhi, 1976.

24 Colin Leys, *The Rise and Fall of Development Theory*, EAEP, Nairobi, James Currey, London, Indiana University Press, Bloomington, 1996, p 26

25 Sheth and Nandy, 'Introduction', Loc cit, p 12.

26 Ibid, p 63.

27 Saul Mendelovitz, 'Foreword' in Jagdish Bhagwati, op cit, p ix.

28 Another related futurist enterprise with which Nandy is also involved is the journal *Futures* on whose editorial board he serves

29 Alternatives Main Page, Http.//www.rienner com/alted.htm The present editors are Dhirubhai Sheth of the CSDS and R B J Walker of the University of Victoria, the Consulting Editors, Rajni Kothari, Saul Mendelovitz (New York), Radmila Nakarada (Belgrade) and Yoshikazu Sakamoto (Tokyo) while the Editorial Committee includes. G D Deshingkar (Delhi), Richard Falk (Princeton), John Fousek (Newark), David Held (Cambridge), Samuel Kim (Princeton), Madhu Kishwar (Delhi), Toshiki Mogami (Tokyo), Ashis Nandy (Delhi), Lester Ruiz (Tokyo), Christine Sylvester (Flagstaff), Cynthia Weber (West Lafayette).

30 Inayatullah.

31 Ashis Nandy, 'History's Forgotten Doubles' (hereafter, HFD), p 55

32 Ashis Nandy, 'Culture Voice and Development: A Primer for the Unsuspecting', *Thesis Eleven*, No 59, 1994.

33 Ashis Nandy, *The Intimate Enemy: Loss and Recovery of Self under Colonialism*, Oxford University Press, Delhi, 1983, (hereafter IE), pp 1 and 63.

34 Inayatullah.

35 Ashis Nandy, 'The Political Culture of the Indian State' in *Daedalus*, Vol 118, No 4, Fall 1989, (hereafter PCIS), p 2.

36 IE, p x.

37 IE, p ix.

38 IE, p 3.

39 Inayatullah, emphasis added.

40 Ashis Nandy, 'Cultural Frames for Social Transformation: A Credo', *Alternatives*, Vol XII, 1987 (hereafter CFST:AC), p 121. This Phrasing is a particularly stunning example of Nandy's Self-Indulgent Hyberbole

41 Ziauddin Sardar's, 'Why You Can't Read These Stars of India', *New Statesman*, February 7, 1997 is a typically fawning piece, typically aimed at a typically unsuspecting audience.

42 The Single Brief Exception is Dipesh Chakrabarty's, 'The Modern Indian Intellectual and the Problem of the Past: An Engagement with the Thoughts of Ashis Nandy', *Emergences* 7-8, 1995-6.

43 'Ashis Nandy in Conversation with Vinay Lal', *Emergences*, 7/8, 1995-6, (hereafter ANVL), pp 31 and 24.

44 ANVL, p 23

45 See Ziauddin Sardar, op cit.

46 The Special Issue of the Journal *Emergences* (7/8, 1995-6) 'Plural Worlds, Multiple Selves: Ashis Nandy and the Post Columbian Future', consisted of 15 items, 5 articles by other writers (including one mildly critical by Dipesh Chakrabarty), a long interview of Ashis Nandy, a book review of one of Nandy's recent works, a select bibliography of his works and no less than 7 articles by Nandy himself!

47 Inayatullah

48 ANVL, p 11

49 Ashis Nandy, 'Sociology of Sati', *Indian Express*, October 5 1987.

50 Imrana Qadeer and Zoya Hasan, 'Deadly Politics of the State and its Apologists', *Economic and Political Weekly*, Vol XXII, no 46, November 14, 1987

51 CFST:AC, p 115

52 ANVL, p 62

53 For an early and prescient account of this pattern see A R Kamat, 'The Emerging Situation A Socio-Structural Analysis', *Economic and Political Weekly*, Annual Number 1978 Robert Stern's lively account of modern Indian history whose primary focus is on this theme what he calls the shift in India's bourgeois revolution ('the development together of capitalism and parliamentary democracy') from being 'top-down' to being 'Middle-Up' may, however, be a little sanguine about its political implications (*Changing India Bourgeois Revolution on the Subcontinent*, Cambridge University Press, New Delhi, 1993)

54 Whatever its implications for the debates about the potential for capitalist development in pre-colonial India which have plagued, even among Marxists, by an almost Weberian European exceptionalism, recent historiography is beginning to delve into the deep roots the bourgeoisie has in Indian history It is not a creation of colonialism. See particularly, Burton Stein, "Towards an Indian Petty Bourgeoisie: Outline of an Approach", *Economic and Political Weekly*, January 26, 1991 and Chris Bayly, *Rulers Townsmen and Bazaars*, Cambridge University Press, Cambridge, 1983. Its development through the colonial period certainly accelerated, though it will remain a matter of debate if it might have been faster still without foreign rule. By the 1930s big business had emerged as a weighty interest in Congress and that meant that unlike many other third world countries, the dynamics of independent India could not be explained by the Kaleckian idea of "Intermediate Regimes" based on the lower middle class and peasants whose politics were potentially far more radical than the Indian record See K N Raj, "The Politics and Economics of Intermediate Regimes" *Economic and Political Weekly*, July 7, 1973 and E M S Namboodiripad, "On Intermediate Regimes", *Economic and Political Weekly*, December 1, 1973 Aijaz Ahmad in 'Class, Nation and State. Intermediate Classes in Peripheral Societies' (Dale Johnson (ed) *Middle Classes in Dependent Countries*, Sage, Beverly Hills, 1985, reprinted in Lineages of the Present, Tulika, Delhi, 1995) also notes this Indian exceptionality in a survey of the more radical middle class political dynamics in countries of west Asia and North Africa

55 Possibly the most comprehensive case for the argument is Francine Frankel's India's Political Economy 1947-77: The Gradual Revolution, Princeton University Press, Princeton, 1978.

56 It was surely an effect of the Cold War hostility to any state-led (and, one must add, non-aligned) developmentalism, however capitalist, that the most prevalent stereotypes of India's development pattern and class structure focused on a "westernised" intellectual elite with "socialist" leanings. In fact, such intellectuals were, at best unwillingly, the footmen of the progress of Indian capitalism, although they, lead by the Left, have played a central role in the task of keeping India's liberal institutions as honest as possible (Aijaz Ahmad, 'In the Eye of the Storm' The Left Chooses', *Economic and Political Weekly*, June 1, 1996). The subsequent utility of this stereotype as a harangue against this developmentalism and the Left, upon the defeat of communism worldswide and exhaustion of statism's potential for capitalist growth and the ruling class's inclination to be even minimally welfarist, is amply evident below. Sudipta Kaviraj has made perhaps the strongest case for including this group as one of three major elements of the ruling coalition in India. See his 'A Critique of the Passive Revolution', *Economic and Political Weekly*, Special Number, November, 1988.

57 Howard Erdman, *The Swatantra Party and Indian Conservatism*, Cambridge University Press, London, 1967

58 Prabhat Patnaik, 'On the Political Economy of Economic Liberalisation', *Social Scientist*, July-August, 1985.

59 Sudipta Kaviraj, 'Religion, Politics and Modernity' in Bhikhu Parekh and Upendra Baxi (eds) *Crisis and Change in Contemporary India*, Sage, New Delhi, 1995, p 313.

60 Jayant Lele's *Elite Pluralism and Class Rule* (University of Toronto Press, Toronto, 1982) provides an excellent picture of these processes in Maharashtra

61 See R Vidyasagar, 'New Agrarianism and Challenges for the Left' in T V Satyamurthy (ed) *Class Formation and Political Transformation in Post-Colonial India*, Oxford University Press, Delhi, 1996, and T J Byres, 'Land Reform, Industrialisation and the Marketed Surplus' An Essay on the Power of Rural Bias', David Lehmann (ed) *Agrarian Reform and Agrarian Reformism*, Faber and Faber, London, 1974.

62 Prabhat Patnaik, 'A Perspective on the Recent Phase of India's Economic Development', *Whatever Happened to Imperialism and Other Essays*, Tulika, Delhi, 1995.

63 K Balagopal, 'An Ideology for the Provincial Propertied Class', *Economic and Political Weekly*, Vol XXII, Nos 36 and 37, September 5-12, 1987, p 1546-7.

64 Ibid. Formerly Marxist, Gail Omvedt and Chetana Galla's riposte ('An Ideology for a Provincial Propertied Class?' *Economic and Political Weekly*, Vol XXII, no 45, November 7, 1987) making the argument that these movements reflected the interests not only of capitalist farmers, but of all engaged in agriculture, including landless labourers, reflects the depth of the political confusion caused by the rhetoric the farmers' movements

65 Prabhat Patnaik, C P Chandrashekher and Abhijit Sen, 'The Proliferation of the Bourgeoisie and Economic Policy' in T V Satyamurthy (ed), *Class Formation and Political Transformation in Post-Colonial India*, Oxford University Press, Delhi, 1996

66 Ibid, p 68, for this and the previous quote.

67 Surendra Patel, *India's Hanuman Leap Towards Globalisation*, IDS/IEC Reprint Series, No 1, 1993

68 Patnaik et al, p 71

69 Ibid, p 73.

70 In a postscript Patnaik et al admit in any case that they had overlooked the role of finance in globalisation I am thinking here especially of Robert Wade's ultimately unconvincing account of resilience of a Japanese model ('Japan, the World Bank and the Art of Paradigm Maintenance' in *New Left Review* 217, May-June 1996) See also Colin Leys' review of Will Hutton's arguments in favour of national capitalisms ('A Radical Agenda for Britain?' *New Left Review* 212, July-August 1995). That even the crisis episodes of 1997-98 have produced little more than the ineffective sabre-rattling of Malaysia's Mahathir is surely further reinforcement of this point

71 See particularly his *Hindutva: The Emergence of the Right*, Earthworm Books, Madras, 1995 and 'A Welfare State in Crisis. Reflections on the Indira-Rajiv Era', N K Choudhry and Salim Mansur (eds) *The Indira-Rajiv Years: The Indian Economy and Polity, 1966-1991*, Centre for South Asian Studies, Toronto, 1994 On the decline of 'dominance' see also Francine Frankel, 'Conclusion: Decline of a Social Order' in Francine Frankel and M S A Rao (eds) *State Power and Dominance*, Vol II, Oxford University Press, 1992 and Oliver Mendelsshon, 'The Transformation of Authority in Rural India', *Modern Asian Studies*, Vol 27, no 4, 1993.

72 Jayant Lele, 'Hindutva as Pedagogic Violence' in *Hindutva*, op cit

73 Lele, *Hindutva*, p 90

74 See, for example, T V Satyamurthy, 'The Impact of Centre-State Relations on Indian Politics An Interpretive Reckoning 1947-1987' in P Chatterjee (ed) *State and Politics in India*, Oxford University Press, Delhi, 1997

75 Utsa Patnaik and Zoya Hasan, 'Aspects of Farmers' Movements in Uttar Pradesh in the Context of Uneven Capitalist Development in Indian Agriculture' in T V Satyamurthy (ed) *Industry and Agriculture in India Since Independence*, Oxford University Press, New Delhi, 1995

76 Tapan Basu et al, *Khaki Shorts and Saffron Flags*, Orient Longman, Delhi, 1993 is a good example. The roots of modern hindutva in the 1920s and the many parallels between it and European fascism of the time (cadres, violent and repeated mobilisations, anti-socialism, appeals to a mythic past, the list can be lengthened) have inevitably raised the question of whether it is 'fascist' or not. The prima facie evidence which Aijaz Ahmad has vividly assembled in 'On the Ruins of Ayodhya' (*Lineages of the Present*, Tulika, Delhi, 1995, pp 270-74) is certainly overwhelming. Achin Vanaik's lengthy response to him and others on this score ('Situating the Threat of Hindu Nationalism: Problems with the Fascist Paradigm' *Economic and Political Weekly*, Vol XXIX, no 28, July 9, 1994), while erudite and informative, seems ultimately schematic, with the implication that no two historical conjunctures being exactly alike, historical study of politics can only be a series of idiographies. While the decision to call hindutva 'fascist' may be ultimately a political one, it is clear that hindutva represents an extremely authoritarian and irrationalist form of politics and comparison is important not least because detailed examination of the two historical contexts yield clues about its nature and dynamics.

77 Ashis Nandy, 'How I Stopped Worrying and Started Loving the Babus', *Emergences* 7-8, 1995-6, p 102

78 ANVL, p 25.

79 ANVL, p 28

80 ANVL, p 15.

81 CFST.AC, p 121.

82 The value of this sociological distinction, in which modernity is essentially the spread of a reason collapsed into instrumental rationality, to critical social theory always been dubious. At its Weberian origins, it issued into a despair at the dehumanising rationalising tendencies of 'modernity' which debilitated his liberalism, despite his intense desire to remain a critic of Enlightenment from within (Wolfgang Mommsen, 'Max Weber's Political Sociology and his Philosophy of World History', *International Social Science Journal*, Vol XVII, no 1, 1965, p 36.) A major intellectual achievement of early dependency theory was precisely to riddle this distinction, as it was mobilised by the sociology of modernisation, with many of its most deserved holes (Andre Gunder Frank, 'Sociology of Development, Underdevelopment of Sociology' in *Latin America: Underdevelopment or Revolution*? Monthly Review Press, New York, 1974). Today, because most scholars fail to sufficiently credit the fact that the histories of both pre-capitalist and capitalist societies have been propelled by the interaction of their dominant and critical cultures (See Jayant Lele, *Tradition and Modernity in Bhakti* Movements, E J Brill, Leiden, 1981) it is one of the most effective weapons in the cultural nationalist conceptual armoury worldwide.

83 Arno Mayer's *Why Did the Heavens not Darken*? (Pantheon, New York, 1990) provides antidotes to many caricatures of Nazism arguing that its anti-semitism was not qualitatively different from the medieval though it may have had more powerful technological means at its disposal, that it was, like most other racisms, exploitative rather than exterminist towards all its victims and that, it was primarily an anti-socialist/communist movement.

84 Ashis Nandy, 'The Politics of Secularism and the Recovery of Religious Tolerance' in *Alternatives*, Vol XIII, 1988 (hereafter PSRRT), p 178.

85 Nikki Keddie's, 'Secularism and the State Towards Clarity and Global Comparison' (*New Left Review* 226, November-December 1997) laudably demonstrates the diversity of ideological and political formations included under the rubric of 'fundamentalism', diversities which arise less from the differences between religions than from the varying social bases and political conjunctures in which these movements arise.

86 Bhikhu Parekh, 'Nehru and the National Philosophy of India', *Economic and Political Weekly*, January 5-12, 1991.

87 Ashis Nandy, 'The Twilight of Certitudes: Secularism, Hindu Nationalism and other Masks of Deculturation', *Alternatives* 22, 1997, (hereafter TC) p 157.

88 TC, p 158-9.

89 PSRRT, p 178.

90 PSRRT, p 189.

91 PSRRT, p 184.

92 PCIS, p 24

93 Inayatullah.

94 PCIS, p 24.

95 PCIS, p 24.

96 Ashis Nandy, 'An Anti-Secularist Manifesto', *Seminar*, October 1985 (hereafter ASM) p 18.

97 TC, p 158

98 TC, p 167.

99 TC, p 166.

100 ASM, p 18

101 Zizek, op cit, p 44.

102 These feminist proposals rest on a systematic critique of the Indian legal system whose literature is now extensive. A fairly comprehensive recent critical survey is Kumkum Sangari's 'Politics of Diversity: Religious Communities and Multiple Patriarchies' Parts I and II, *Economic and Political Weekly*. December 23 and 30, 1995. A practical feminist alternative to Indian women's compulsory subjection to this religiously articulated patriarchy is Working Group on Women's Rights, 'Reversing the Options. Civil Codes and Personal Laws', *Economic and Political Weekly*, May 18, 1996.

103 Inayatulah.

104 Ashis Nandy, 'Towards an Alternative Politics of Psychology', *International Social Science Journal*, Vol 35, no 2, 1983

105 TC, p 171.

106 Noel O'Sullivan, *Conservatism*, J P Dent, London, 1976.

107 Ibid, p 127.

108 See my 'Fetishising Phantoms. Carl Schmitt, Chantal Mouffe and 'the Political', Loc cit. Although conservatism has been distinguished from its radical or reactionary versions (fascism or other varieties of authoritarianism) by the fact that the latter does not seek to preserve existing institutions but to create a 'new' order in an act of pure creativity free from rational constraints even if it is usually in the name of recreating some pre-existing mythical order, with fewer 'traditional' institutions left standing in the face of market logic, it is harder than ever to see the utility of this distinction.

109 As Jayant Lele so aptly characterises this view (Lele, *Hindutva*, p 100).

110 PCIS, p 6

111 ANVL, pp 50-57.

112 ANVL, p 66.

113 ANVL, p 62.

114 Ashis Nandy, 'The After-Life of the Raj in Indian Academe' *Emergences*, 7/8, 1995-6, (hereafter TA-LR), p 82.

115 Balagopal, loc cit, p 1545-6.

116 TA-LR, p 93.

117 IE, p xii-xiii.

118 See note 42.

119 IE, p xii.

120 ANVL, p 20

121 TC, p 165.

122 ANVL, p 13.

123 PCIS, p 3

124 PCIS, p 3.

Estimating Infant Mortality in Kerala

S Irudaya Rajan
P Mohanachandran

Kerala has recorded declining infant mortality, a high stillbirth rate and a high proportion of infant deaths below one week. This presents a paradox which needs careful investigation.

AS of 1996, Kerala's infant mortality rate was estimated to be 14 for both males and females as per the Sample Registration System (SRS) provided by the registrar general of India, ministry of home affairs, government of India, New Delhi. Using the above statistics, many social scientists and organisations assess the health situation and quality of life of Indian population. For instance, the Population Foundation of India (1998), in its recently released publication titled *State of India's Population* presents most recent information on the levels of fertility, mortality and reproductive health and combining them into indices such as human development index (HDI), gender related health index (GHI) and reproductive health index (RHI).

The HDI has been computed by giving equal weights to three component indices: expectation of life at birth, adult literacy rate and per capita state domestic product. The index for Kerala is 63 as of 1995, the highest among major states and the lowest is reported for Bihar. GHI uses the same variables as HDI and attempts to capture the achievements in narrowing gender differentials through the same set of capabilities. As of 1995, the index for Kerala is 89, the highest among major states and the lowest is reported for Madhya Pradesh. The RHI developed by the Population Foundation of India, takes into account the following variables: total fertility rate, perinatal mortality rate, educational level, type of medical attention at birth, birth order, teenage pregnancies measured by age-specific fertility rate of women aged 15-19 and contraceptive protection rate due to sterilisation. The index for Kerala is 80 as of 1995, the highest among major states and the lowest is reported for Uttar Pradesh [Population Foundation of India 1998]. Though the above three indices rank Kerala as the number one state, the last runner for each index varies considerably; HDI for Bihar, GHI for Madhya Pradesh and RHI for Uttar Pradesh. Even the physical quality of life index ranks Kerala as the number one state in India [Karkal and Rajan 1991]. Remember, all these indices heavily depend on infant mortality rate, perinatal mortality rate and expectation of life at birth.

How reliable are the SRS estimates of infant mortality, perinatal mortality, neonatal and post-neonatal mortality for Kerala? The SRS provides annual series on indicators of mortality and fertility. The annual series data on IMR provided by the SRS from 1971 to 1996 are presented in Table 1. Some quick observations can be made. Firstly, a number of fluctuations and inconsistencies in the IMR estimates are noticed throughout the last 25 years. The 1971 SRS reported the IMR for Kerala as 58 whereas the 1972 SRS states the IMR as 63. On an average, the IMR for Kerala for the period 1971-76 was 57 per thousand live births. We also notice a decline of 9 points in IMR between 1976-77 (56 in 1976 and 47 in 1977). During 1977-80, the IMR for Kerala was 43, a decline of 14 points compared to the 1971-76 period. However, during the 1980s and 1990s, IMR values declined further to reach a level of 32 between 1980-85, 24 between 1986-90 and 15 between 1991-96. Between 1986-90 and 1991-96, a decline of 9 points was noticed.

Surprisingly, the contribution of post-neonatal mortality (28 days to 365 days) to the decline of IMR is higher than that of neonatal mortality (0-28 days). During 1971-76, 60 per cent of infant deaths occurred within a month whereas the proportion has gone up to 75 per cent during 1991-96. The proportion of children who died after a month and within a year has come down from 40 in 1971-76 to 26 in 1991-96.

Decomposition of one-month infant mortality data into two components such as 0-7 days and 7-28 days, reveals an interesting scenario of health situation of Kerala. It shows that 64 per cent of this group died within a week during 1971-76 and this proportion has gone up to 85 per cent in recent years. It means, simply, that out of 14 children who died in Kerala within one year, 10 died within a week of birth! Thus the infant mortality in Kerala is basically a one-week mortality not a one-year mortality.

Let us now analyse the perinatal mortality and stillbirth rates for Kerala. During 1971-76, the perinatal mortality (one week mortality+stillbirth rate) was around 42 and it declined to 20 during 1991-96. However, the stillbirth rate has declined from 21 to 10 during the same period under investigation. Between 1971-76 and 1991-96, the highest percentage decline was noticed among the post neonatal mortality (83), followed by 7-28 days mortality (66). However, the percentage decline was almost 55 for perinatal mortality, stillbirth and one-week mortality rates in Kerala. It means the health programmes in Kerala will save the children only if they survive at least for a week. The stillbirth rate, perinatal mortality and one-week mortality rates are extremely high compared to the infant mortality rate.

In this context, IMR estimates made for Kerala using the 1991 Census reveal surprisingly, a different story. The registrar general of India (1998) has estimated the IMR for Kerala as 42 per thousand live births whereas as our own estimates put the IMR at 37 [Irudaya Rajan and Mohanachandran 1998]. We also provide IMR estimates for Kerala from various studies carried out in Kerala in Table 2.

During the same period, we published an article 'Long-Term Implications of Low Fertility in Kerala' in *Asia Pacific Population Journal*, a journal published by the United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP), Bangkok, Thailand [Irudaya Rajan and Zachariah 1998]. During the correspondence, Nibhon Debavalya, director, population division, ESCAP, United Nations, queried the senior author (May 29, 1998): "Is the IMR really as low as 16? The decline in mortality between the period 1981-91 and 1991-96 seems unrealistic." The same view was expressed by K Srinivasan, executive director, Population Foundation of India as early as 1996 during my presentation on infant mortality in Kerala [Irudaya Rajan 1996]. Numerous scholars have worked on Kerala's demography at various points of time, specially during the 1980s and 1990s [Srinivasan 1995; Zachariah 1998]. We have also not investigated this peculiar phenomenon in our recent work [Zachariah and Irudaya Rajan 1997a; 1997b], however, diverging opinions on implication of fertility transition have also been presented in the publication [Kurup 1997; Mishra and Irudaya Rajan 1997].

This brief note has two objectives: Firstly, to explore the possible reasons of high stillbirth rate and perinatal mortality in Kerala, secondly, why the SRS under-

estimates the IMR as low as 14? In the process, we also assess the reasons for high infant mortality rate (37 in 1991) in Kerala as revealed using the census data [more details on the methodology and results for all districts of India, see Irudaya Rajan and Mohanachandran 1998].

Let us discuss the basic structure of the SRS in Kerala. The SRS in Kerala is being implemented through two different agencies; rural areas are covered by the Directorate of Economics and Statistics whereas urban areas are by the Directorate of Census Operations. The investigator appointed for this purpose visits the sample unit once in six months. However, he is supported by a local enumerator (mostly retired government servants with nominal remuneration) to collect the birth, death and other relevant information for every month. If the recorded events do not tally, spot checks are made. Sample units are replaced once in 10 years.

According to published information, the rural SRS is conducted among 150 sample units covering approximately 150-200 households with a population size varying between 1,500 to 2,000 in each sample unit. The urban SRS is conducted as per the rules of the rural SRS, but the sample units are limited to 100. In 1994, the SRS was conducted in 250 sample units covering 3,27,000 persons in the sample. If we use the above information and also the information on birth and infant mortality and stillbirth rates, the following facts are available from the SRS.

During the year 1994, only 5,690 births occurred among the 250 sample units in Kerala. Among them, 91 died before they celebrated their first birthday. Even if we assume one infant death in every sample unit, 159 sample units reported no infant death in 1994. Among the 91 who died before one year, 61 died in a week or 72 died in a month. There were 56 stillbirths reported in the SRS units in 1994. Using the 91 infant deaths among 5,690 births, the SRS provides estimates for Kerala as a whole. As the IMR is becoming a rare event in Kerala, is the SRS sample size good enough to provide estimates for Kerala? This is a serious question that needs to be discussed.

The registrar general of India initiated a sample registration of births and deaths in India on a full scale during 1969-70, to provide reliable estimates of fertility and mortality in the absence of dependable vital rates from the civil registration system. It is high time perhaps for Kerala to take a lead in abandoning the SRS and strengthen the civil registration system. In fact, SRS itself reports that 95 per cent of births occurred in the medical institutions in Kerala which means they

TABLE 1: INFANT MORTALITY BY DIFFERENT COMPONENTS, KERALA, 1971-96

Year	PMR	SBR	OWM	OWOM	NMR	PNMR	IMR
1971	41.5	17.5	24.0	13.5	37.5	20.5	58
1972	49.3	26.4	22.9	13.8	36.7	26.3	63
1973	43.6	24.7	18.9	11.6	30.5	26.5	58
1974	37.2	18.1	19.1	12.4	31.5	22.5	54
1975	42.5	18.6	23 9	10.1	34.0	20.0	54
1976	39.0	17.9	21.1	12.8	33.9	22.1	56
1977	27.1	12.3	14 8	13.3	28.1	18.9	47
1978	34.0	16.7	17.3	9.5	26.8	15.2	42
1979	22.5	2.4	20.1	9 7	29.8	12.9	43
1980	22.7	7.6	15.1	14.6	29.7	10.5	40
1981	28.6	11.3	17.3	8.4	25.7	11.7	37
1982	22.1	5.7	16.4	5.3	21.7	8.7	30
1983	20.6	3.4	17.2	5.8	23.0	10.0	33
1984	22.9	8.1	14.8	6.2	21.0	7.7	29
1985	24.3	8.4	15 9	6 2	22.1	9.2	31
1986	23 0	10.3	12.7	6.4	19.1	8.3	27
1987	24 9	11 1	13.8	5.5	19.3	8 6	28
1988	25.4	11.8	13.6	4.4	18.0	9.7	28
1989	25.3	14.3	10.0	4.0	14.0	7.0	21
1990	25.7	16.6	9.1	2.9	12.0	3.3	15
1991	18.0	9.2	8.8	2.5	11.3	5.1	16
1992	18.9	10.1	8.8	2.1	10.9	5.8	17
1993	16.8	8 2	8.6	1.4	10.0	3 3	13
1994	20.5	9.8	10.7	1.9	12.6	3.2	16
1995	na	na	na	na	na	na	15
1996	na	na	na	na	na	na	14

Notes: Compiled by the authors from various issues of *Sample Registration System* and bulletins.
PMR refers to perinatal mortality rate and defined as number of stillbirths and infant deaths of less than seven days during the year divided by number of live births and stillbirths during the year multiplied by 1000.
SBR refers to stillbirth rate and defined as number of stillbirths during the year divided by number of live births and stillbirths during the year multiplied by 1000;
OWM refers to one-week mortality (0-seven days mortality) and defined as number of infant deaths of less than one week during the year divided by number of live births during the year multiplied by 1000.
OWOM refers to one week to one month mortality (7-28 days mortality) and defined as number of infant deaths of more than one week and less than a month during the year divided by number of live births during the year multiplied by 1000
NMR refers to neonatal mortality rate (0-28 days mortality) and defined as number of infant deaths of less than a month during the year divided by number of live births during the year multiplied by 1000
PNMR refers to post-neonatal mortality rate (28 days to one year) and defined as number of infant deaths of more than a month and less than a year during the year divided by number of live births during the year multiplied by 1000.
IMR refers to infant mortality rate and defined as number of infant deaths during the year divided by number of live births during the year multiplied by 1000.

TABLE 2: INFANT MORTALITY ESTIMATES FOR KERALA (VARIOUS SOURCES)

Author	Reference Period	IMR
Registrar General of India	1981 Census	55
Registrar General of India	1991 Census	42
Irudaya Rajan and Mohanachandran	1991 Census	37
World Bank Fertility Survey (1980)	1970-75	59
	1975-80	46
Kerala Fertility Survey (1991)	1980-85	44
	1985-90	26
National Family Health Survey	1990-93	24
	1985-90	38

Sources: Registrar General of India (1988): *Child Mortality Estimates of India*, Occasional Paper No 5 of 1998, Demography Division, Census of India, Ministry of Home Affairs, New Delhi
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are automatically registered in the civil registers.

Even if one were to accept that the IMR provided for Kerala by SRS is correct, stillbirth rates and perinatal mortality rates are extremely high. According to the 1994 SRS, Kerala's IMR was 16, the lowest among major states in India. The next lowest IMR was reported for Punjab with 53, at least three times higher than Kerala values; that is, Kerala's IMR was lower by 37 points (more details see Table 3). However, the one week mortality rates for Kerala and Punjab were 11 and 18 respectively. In other words, in the one week mortality, Kerala could lead Punjab only by 7 points compared to the lead it had for IMR (37 points). However, Kerala loses its first rank as well as outlier status in stillbirth rate.

According to the 1994 SRS, Bihar, Rajasthan and Uttar Pradesh have lower stillbirth rates than Kerala. In fact, Kerala is above the all-India average. Andhra Pradesh, Assam, Gujarat have the same values as Kerala. Kerala has failed to reduce stillbirths compared to other states (more details, see Table 3). Kerala's stillbirth rate and one-week mortality rates indicate serious problems with the maternal and child health (MCH) programme, particularly the 'M' part. Here is another paradox in Kerala: low IMR, high stillbirth and one-week mortality.

A recent study by Mohanachandran et al (1998) using the National Family Health Survey (1992-93) indicates that most of the maternal care programmes (such as antenatal check up and tetanus injection during pregnancy) and infant and child survival were found to be highly correlated. However, maternal care programmes could not improve the infant survival, specially in the neonatal period. Thus the authors suggest that greater attention be given to maternal care programmes to improve the survival chances of new born infants [Mohanachandran, Chandran and Sabu 1998].

As stated, almost 95 per cent of women delivered their babies in public and private medical institutions as of 1994 in Kerala and another 3 per cent of women delivered their babies at home under the supervision of the qualified medical practitioners. Other studies conducted in Kerala also support the above information [Zachariah et al 1998] However, these percentages were 33 and 30 respectively in 1971 (more details, see Table 4). We have also some suspicion about stillbirth and one-week mortality rate in this context. As most of the maternal and child care institutions are called 'baby friendly' in Kerala, and much emphasis is given to preventing infant mortality, some deaths which occurred immediately after the birth probably classified as 'stillbirth' by the medical practitioners deliberately. In a seminar in 1996, it was pointed out that the increasing proportion of stillbirths was due to wrong reporting of early infant deaths [Irudaya Rajan and Mishra 1997]. Added to this, SRS may be capturing the number of births which occurred in Kerala more accurately and the infants' deaths are not reported properly. However, Mari Bhat (1996) argues that the SRS had significantly underestimated the intercensal growth in population as it was undercounting more births than deaths. For instance, some households in Kerala, bury their infant dead children within the home itself. Children who die within a year are not given importance in the SRS.

Adding to the high stillbirth and one-week mortality, another very disturbing factor in Kerala is the low birth weight. As of today, on an average, Kerala women produce only two babies and one expects them to be more healthy. However, available studies indicate that the proportion of low birth weight babies is on the increase [Ramankutty et al 1991a; 1991b; Premakumari 1992; Kurup 1997; Radhakrishnan 1998]. Let us review the two recent studies. The WHO has specified less than 2 kg as very low birth weight and less than 2.5 kg as low birth weight. According to Kurup's (1997) study based on two hospitals' study conducted in Thiruvananthapuram the average birth weight is on the decline. For instance, in the first hospital, the average birth weight has declined from 2.81 kg in 1987-88 to 2.65 kg in 1992-93 and in the second hospital the values are 2.85 kg and 2.73 kg respectively, during the same period. If we adopt the WHO definition, low birth weight babies respectively in one hospital during 1987-88 and 1992-93 are 22.5 and 17 [Kurup 1997]. Kurup argues for the proper nutritional care for pregnant women.

The antenatal care (ANC) visits among pregnant women before delivery are extremely high in Kerala. Unfortunately, the more the number of ANC visits, more the chances of Cesarean operation. Cesarean deliveries are extremely high. Given the excellent ANC, one would not expect the

TABLE 4. MEDICAL ATTENTION AT BIRTH FOR KERALA, 1971-94

	Medical Attention at Birth		
	I	M	U+O
1971	32.7	29.9	37.4
1972	31.1	19.9	49.9
1973	33.0	21.1	45.9
1974	35.5	21.1	43.4
1975	35.5	22.1	42.4
1976	38.4	20.9	40.7
1977	41.6	18.4	40.0
1978	46.2	17.1	36.7
1979	48.6	17.4	33.9
1980	49.3	15.6	35.1
1981	52.7	16.9	30.4
1982	53.6	17.0	29.4
1983	61.5	12.8	25.7
1984	72.8	9.3	17.9
1985	77.2	7.8	15.0
1986	78.1	7.9	14.0
1987	79.0	8.4	12.6
1989	84.9	6.2	8.9
1991	91.5	5.0	3.6
1992	91.9	5.2	2.9
1993	92.3	5.5	2.2
1994	95.2	2.9	1.9

Notes: Compiled by the authors from various issues of *Sample Registration System* and bulletins.
I the births delivered in both private and public institutions
M births delivered at home attended by qualified medical practitioners.
U + O births delivered at home attended by unqualified medical practitioners and others at home.

TABLE 3: INFANT MORTALITY RATE, ONE WEEK MORTALITY RATE AND STILLBIRTH RATE FOR INDIA AND MAJOR STATES, 1994

	IMR			OWM			SBR		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
India	74	80	52	34	36	24	9	7	15
Andhra Pradesh	65	69	52	38	40	31	10	9	14
Assam	78	78	76	36	35	47	10	9	20
Bihar	67	68	61	31	32	25	4	3	18
Gujarat	64	70	51	33	37	24	10	3	26
Haryana	70	70	68	32	33	26	12	12	11
Karnataka	67	73	50	33	38	21	15	11	24
Kerala	16	16	14	11	11	10	10	9	12
Madhya Pradesh	98	105	57	41	44	22	11	10	16
Maharashtra	55	68	38	28	33	20	13	13	12
Orissa	103	108	65	49	51	28	15	14	22
Punjab	53	59	36	18	21	9	14	13	16
Rajasthan	84	87	62	39	40	28	8	6	20
Tamil Nadu	59	64	48	34	35	30	11	11	12
Uttar Pradesh	88	91	65	36	38	26	5	4	11
West Bengal	62	64	52	28	30	18	14	13	21

Source: *Sample Registration System: Fertility and Mortality Indicators*, Registrar General of India, 1994. Government of India Press, Delhi.

TABLE 5: INCIDENCE OF LOW BIRTH WEIGHT BABIES IN SREE AVITAM TIRUNAL HOSPITAL, THIRUVANANTHAPURUM.

	Total Deliveries	Percentage of LBW babies
1990	12756	25
1991	12837	20
1992	12089	19
1993	12117	20
1994	12072	27
1995	13420	27

Source: Radhakrishnan, T (1998). *Socio-Economic and Demographic Factors Associated with Birth Weight: A Study in Kadakampally*, Thiruvananthapuram Achutha Menon Centre for Health Science Studies, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram, Kerala.

low birth weight babies in Kerala. In a seminar at Thiruvananthapuram, a medical doctor noted that the state is fast becoming alcoholic (8.1 litres of alcohol consumption per person per year) and it may be one of the reasons for low birth weight babies. Food availability of the mother is at its minimum [Irudaya Rajan and Mishra 1997]. In 1995, among 13,420 deliveries conducted in Sree Avitam Tirunal Hospital, Thiruvananthapuram, 27 per cent of them were low birth weight babies [Radhakrishnan 1998]. More details are presented in Table 5.

One more implication of the fertility transition is to be noted in this context. The effective reproductive span (difference between the first and last child) of Kerala's women has come down from 12 years in 1970s to five years in 1990s. It indirectly indicates that Kerala's women opt to have a second child quickly and the cost of reducing birth intervals is probably more stillbirths and low birth weight babies [Mishra and Irudaya Rajan 1997].

We have questioned the SRS-IMR estimate of 14 and in our opinion, the SRS underestimates the IMR. Our estimates place the IMR for Kerala as 37. Our estimates are well supported by the available indicators of Kerala: effective reproductive span of five years, 27 per cent low birth weight babies, stillbirth rate of 10 and one-week infant mortality of 11 per thousand live births. This is the beginning of a new debate on low infant mortality and high stillbirth rate in Kerala. New innovative and inter-disciplinary research is required to unearth the reasons behind this paradox.

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The Role of Public Infrastructure Investments in Regional Development

Experience of Indian States

Somik V Lall

There does not appear to be consensus on the importance of public investments as productive factors in the economic development process. In an era of increasing regional identities, there is need to understand the determinants of regional economic growth. A critical examination of the relationship between public policies and regional economic growth is provided in this paper. The main lesson that emerges from the review of regional development literature is that a single incentive or development activity cannot lead to programme or project success. The empirical analysis tests the efficacy of public infrastructure investments in the development process of 15 Indian states. The empirical analysis highlights that investments in social infrastructure have the closest linkage with economic growth across lagging, intermediate, and leading states. The empirical research suggests that the composition of public investments is important in facilitating growth, and public investment is a necessary but not sufficient condition for regional economic growth. Sensitivity towards scale and spatial issues, model specification and development of conceptual linkages should be central to future work on infrastructure productivity.

I
Background and Motivation

THE development of lagging regions is of special concern to the development community. While there is consensus on the application of standard elements of the development tool-kit towards these regions, there is less agreement on whether to undertake, and how to implement, regional planning. While approaches to regional development have changed over time [Bendavid-Val 1991], the regional planning approach emphasises strategic, geographically-focused investments in infrastructure, and the application of industrial policies to influence the location of industries and to foster the development of inter industry linkages.

The Indian government has made balanced regional development an integral part of national planning practice and objectives. Chelliah (1996) specifies that the national policy of the Indian government has been to ensure balanced development of all regions and to gradually bring down regional disparities. However, it is apparent that despite the initiatives taken under the five-year plans, inter-state disparities have increased, either due to failures of policy implementation or due to use of inappropriate approaches [Chelliah 1996]. In addition to disparities among states, there also exist intra-regional disparities within different states.

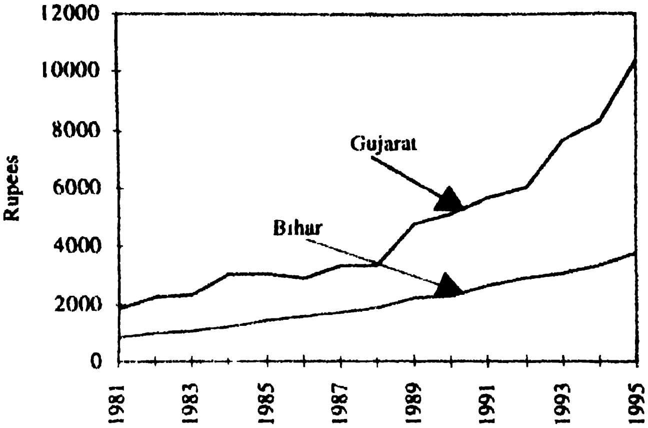
The government of India (GOI) has been using the five-year plans as a vehicle to address the concern of regional disparities in the country. One of the GOI's objectives was to improve the standards of living of the lowest 30 per cent of the population, most of them living in backward areas [Das 1993]. Instruments like the minimum needs programme have often been used to operationalise these objectives. In a recent review of planning and regional difference in India, Das (1993) indicates that the Sixth Five-Year Plan made the first explicit attempt to review the patterns of regional development in the context of policy instruments used since the early 1960s. The Planning Commission (1979) reported that decisions on resource transfers, agriculture development strategies, and industrial location policies were not always based on a systematic analysis of regional disparities and their underlying causes.

In 1983, the Indian National Committee on the Development of Backward Areas (NCDBA) reported that major federal incentives like concessional finance for industrial location have primarily benefited states that were not classified as industrially backward, and most districts receiving substantial benefits were in close proximity to relatively developed industrial centres [Lall 1983a]. In India, investment-related fiscal incentives have resulted in the location of high-dividend paying companies maintaining a zero-tax status for decades [Lall 1983b]. While the former finding can be classified as an example of policy implementation failure, the latter indicates the use of an inappropriate approach.

Poverty in India has been an intensely researched subject. While the estimation of economic inequality is a controversial issue, several studies have highlighted the inter-regional and inter-temporal variations of poverty. Das and Barua (1996) provide an interesting example of inter-regional disparities in India. They mention that Punjab has 2.5 per cent of the total national population and contributes 4 per cent-5 per cent of the aggregate net state domestic product (NSDP), while Bihar has 10 per cent of the population and contributes only 6 per cent -7 per cent of the NSDP. Figure 1[1] provides an illustration of the regional disparities between Bihar (a lagging state) and Gujarat (a leading state).

The Indian states are diverse in terms of geographic, demographic, and economic characteristics. The central and western states of Madhya Pradesh, Uttar Pradesh, Rajasthan, and Maharashtra are largest in land area, and the eastern states of Bihar and Uttar Pradesh have the largest populations. Between 1961 and 1991, five of the lagging regions remained among the poorest, and regions with above average per capita incomes remained above the average [Cashin and Sahay 1996]. Other studies highlighting regional disparities in India include Bhat et al (1995), Nair (1993), Pal (1995), Tewari (1985), Tendulkar and Jain (1995), Das (1993), and IIPO (1993). There is adequate evidence to suggest the existence of and increase in regional disparities in India. Regional output disparities among selected Indian states are displayed in Table 1. The coefficient of variation shows increasing trends in regional disparities between 1980 and 1994.

FIGURE 1: PER CAPITA STATE DOMESTIC PRODUCT (BIHAR AND GUJARAT, 1981-1995)



Source: Economic Survey of India.

Map 1 depicts inter-state variations in public infrastructure investments in the transportation and power sectors. The map suggests investment patterns do not directly translate into output differences. Map 2 depicts variations in infant mortality rates. It is visible that lagging states like Madhya Pradesh and Orissa have the highest incidence of infant mortality compared to lower incidences of infant mortality in states like Punjab, Haryana, and Maharashtra. While these maps only give a snapshot of regional variations in factors influencing long-term growth, methodologies such as GIS can be used as a visual screening device to identify potential problem areas.

The objectives of this paper are twofold. First, the relationship between public policies and regional growth is examined. This includes a discussion on the effects of infrastructure on regional development. Second, the role of public investments in the development of 15 Indian states is examined. The specific question addressed is whether the varying incidence of public infrastructure investments influenced the development patterns of lagging, intermediate and leading Indian states.

This paper is divided into four main parts. Part I provides the background and motivation for this study. Part II highlights the need to examine regions as the unit of analysis and reviews the relationship between infrastructure investments and regional growth. Part III examines the efficacy of infrastructure investments in the development of Indian states. This section presents the data, choice of methodology, model specification, and results from the empirical analysis. Part IV presents some policy implications and directions for future research.

II
Public Policies and Regional Growth

Part IIA addresses the emerging role of regional economies and emphasises the need to use regions as the unit of analysis. Part IIB examines the relationship between public expenditures in infrastructure and regional growth.

IIA: EMERGING ROLE OF REGIONAL ECONOMIES

Higgins and Savoie (1995) suggest that we are in an era of extreme fluidity and flexibility regarding the location of industry, agglomeration and deglomeration, integration and disintegration, and polarisation and 'polarisation reversal'. Region-states are gaining more importance in terms of their competitiveness in the local as well as the global economy. Ohmae (1993) indicates that region-states are the primary unit of interaction in a borderless economy and that they are shaped by the demands of the global economy, rather than political entities. He also asserts that successful multinational corporations are increasingly gaining access into markets directly through regions, rather than national capitals. Central governments have little control over consumer preferences, and workers in a region are inclined to develop loyalty to employers rather than to a central government.

There are several definitions of regions that can be used for planning and policy purposes. In addition to administratively defined regions, other definition may include rapidly growing 'urban regions', functional or economic regions, agro-ecologically defined regions, watershed management areas, and so on – where a region is considered to be an "area that shares a common problem". The empirical work in this paper uses the state as the unit of analysis primarily because it has expenditure responsibilities and taxing powers.[2]

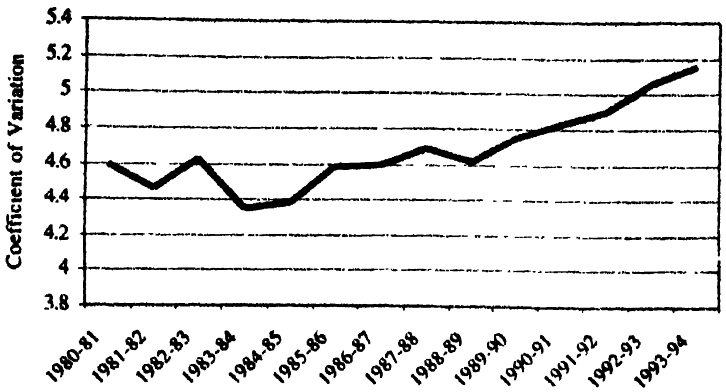
Hansen (1990) examined the key factors involved in the remarkable economic turnaround of Mediterranean France, which had traditionally been considered to be a peripheral zone within the national economy (draws on the core-periphery relationship, where the periphery lags behind the core). Hansen looked at the role of non-economic factors that influenced the location choices of households and firms, and the role of technological innovation, service activities, and small and medium-sized enterprises (SMEs) in the regional development process. Hansen found that efficient organisation of production was strongly associated with flexibility and vertical disintegration. There are a variety of circumstances that can encourage vertical disintegration. Fragmentation may arise where there are (a) segmented labour markets (some work

TABLE 1: REGIONAL VARIATION IN PER CAPITA OUTPUT

State	Per Capita GDP – 1981 (1981 Rs)	Per Capita GDP – 1991 (1981 Rs)	Annual Rate of Growth (Per Cent)
Bihar	917	1192	3.00
Rajasthan	1222	1942	5 89
Uttar Pradesh	1278	1613	2.62
Orissa	1314	1383	0.53
Assam	1317	1805	3 71
Madhya Pradesh	1358	1708	2.58
Andhra Pradesh	1380	1779	2.89
Tamil Nad.	1498	2275	5.19
Kerala	1527	2049	2.04
Karnataka	1527	2049	3.42
West Bengal	1612	1946	2.07
Gujarat	1940	2654	3.68
Haryana	2370	3467	4.63
Maharashtra	2435	3438	4.12
Punjab	2674	3754	4.04

Source: Economic Survey of India.

FIGURE 2: COEFFICIENT OF VARIATION IN STATE OUTPUT PER CAPITA



tasks can be subcontracted out from firms in primary labour markets to firms in secondary labour markets); (b) uncertain or unstable markets; (c) existence of significant specialisation economies, and variation in optimal scales of output among different production stages.

The economic performance of these regions influence the economic competitiveness of nations. Richardson and Townroe (1986) motivate the discussion on economic growth and regional disparities by suggesting that regional disparities in developing countries are a consequence of economic growth. They formulate the hypothesis that if economic growth is related to the links between a particular country and the world economy, then regional economic disparities within the country are likely to be wider than that in a closed economy.

The objectives of regional development can be accomplished through a set of strategies. Some of these strategies relate to migration, rural development, and industrial development. A review of existing literature [Markusen 1994; Higgins and Savoie 1995; Richardson 1978; Richardson and Townroe 1986] shows the use of migration strategies of moving people to jobs (Thailand, Mexico, Indonesia, Korea), economic base diversification through expansion of industrial sectors (Thailand, Mexico, north-east Brazil, north-east Malaysia, Argentina), and decentralisation of economic activities (Thailand, Kenya, Argentina, Mexico). Fiscal policies have traditionally been used to stimulate the development of lagging regions. Instruments for promoting economic development in particular regions include infrastructure investments, subsidies to capital and to labour, fiscal incentives and import controls, intervention in the location of public sector employment, development of secondary cities and growth centres, and administrative decentralisation.

An important issue in the fields of regional science and development economics is whether initially lagging economies subsequently grow faster and catch up to those that had higher initial endowments. While income differentials between countries are extremely large, income differentials within regions of a given country can also be significant.

In the context of the preceding discussion, it becomes very important to understand the determinants of development of sub-national regions. In an era of regional identities, the one size fits all paradigm used by governments should gradually give way to region-specific policies that draw upon regional comparative and competitive advantages. In IIB, a discussion on the effects of infrastructure investments (a particular instrument for promoting regional development) on regional growth is provided.

IIB: INFRASTRUCTURE AND REGIONAL GROWTH

The role of infrastructure in regional economic development has often been examined since the second world war. Definitions of infrastructure vary widely from economic and social overhead capital to the general provision of public goods.[3] The concept of social infrastructure has been traditionally linked to education, health, social and recreational support and partly to environmental concerns [Haynes 1991]. This human capital perspective is augmented by a direct orientation to the welfare of human resources and its consequences, which is assumed to increase labour productivity. Economic infrastructure is also viewed as a complement to productivity. In this section, a review of the recent debate on issues surrounding economic infrastructure is provided as a link to the empirical work on Indian states.

The availability and quality of reliable economic infrastructure[4] appear to influence economic productivity and social welfare in at least two basic ways. These are:

(1) *Direct contribution to output (augmenting the productivity of private inputs)*: infrastructure as an intermediate public good takes part directly or indirectly in production processes. For ex-

TABLE 2: EMPIRICAL ESTIMATES FOR LAGGING STATES

Variable	OLS	OLS (Fixed Effects)	Seemingly Unrelated Regression (SUR)	Two Stage Least Squares
Private capital investment (PVK)	0.165	-0.007	-0.004	0.030
	(4.30)*	(-0.21)	(-0.28)	(0.67)
Public infrastructure (economic)	0.129	-0.142	-0.059	-0.23
investment (PHY)	(2.24)**	(-2.15)**	(-1.32)	(-2.69)*
Public infrastructure (social)	-0.175	0.294	0.2	0.319
investment (SOC)	(-3.92)*	(4.25)*	(4.81)*	(3.63)*
Private employment (PEM)	-0.093	0.303	0.227	0.36
	(-2.37)**	(2.83)*	(2.78)*	(2.71)*
R^2	0.65	0.88	0.88	
F-statistic	23.57*	115.76*		

TABLE 3. EMPIRICAL ESTIMATES FOR INTERMEDIATE STATES

Variable	OLS	OLS (Fixed Effects)	Seemingly Unrelated Regression (SUR)	Two Stage Least Squares
Private capital investment (PVK)	0.033	-0.012	-0.005	-0.024
	(3.65)*	(-0.59)	(-0.53)	(-0.93)
Public infrastructure (economic)	0.026	-0.007	-0.002	0.016
investment (PHY)	(1.68)***	(-0.48)	(-0.19)	(0.67)
Public infrastructure (social)	0.096	0.23	0.212	0.23
investment (SOC)	(3.56)*	(8.01)*	(15.83)*	(6.15)*
Private employment (PEM)	-0.108	-0.173	-0.177	-0.078
	(-3.06)*	(-1.31)	(-6.67)*	(-0.49)
R^2	0.70	0.89		
F-statistic	35.94*	154.52*		

ample transport and communications networks and energy can be distinguished as intermediate public goods with a direct effect on productive activities.

(2) *Enhances a region's amenities and influence location decision of private industry*: Infrastructure offers incentives to individuals and firms when they consider establishing their residence or locating a business or industry.

However, it must be noted that the relationship between infrastructure and economic growth is not monocausal. In addition to the causal link between infrastructure and regional development, there is also a feedback effect from regional development to infrastructure. Thus, in order to assess the importance of physical infrastructure in promoting growth it may be pertinent to address the productivity impact of infrastructure and the relationship between infrastructure and other factors of production especially private capital. These issues are addressed in this part of the paper.

Productivity impact of infrastructure: Several empirical studies have tested the relationship between publicly financed infrastructure and economic growth. Most empirical studies have estimated neo-classical production functions in which infrastructure investment is treated as an input to production. In the US, public infrastructure has been shown to have positive and statistically significant effects on per capita GDP at the national level [Aschaher 1989 (.39, .24); Munnell 1990 (.33); Lynde and Richmond 1993 (.20) – figures in parenthesis are elasticities]. State level studies have found elasticities lower that national level estimates [Munnell and Cook 1990 a and b (.06, .01); Holtz-Eakin and Schwartz 1995 (.03)], and metro level studies have shown that elaticities of physical infrastructure are low and insignificant in some cases [Eberts 1986 (.03); Crihfield and Panggabean 1995 (insignificant)]. In most of these studies the explanatory variables have been considered exogenous, and rates of change in per capita GDP or per capita personal income have been used as indicators of economic growth.

An interesting issue emerges from these studies is that the scale of analysis influences the size of output elasticities of infrastructure suggesting aggregation problems. The elasticities decrease progressively with reduction in geographical focus. Using state level data for the US, Munnell and Cook (1990) found the elasticity of public capital was less than half of that corresponding to the national level. A similar reduction occurred when disaggregated state and local data were used for analysis [Holtz-Eakin and Schwartz 1995; Crihfield and Panggabean 1995]. These studies conclude that, at the state and metropolitan level, even though public infrastructure is essential to economic performance, it does not have a significant impact on marginal productivity. At the metropolitan area level, Eberts (1986, 1990) estimated elasticities of output through infrastructure to be less than 10 per cent, in contrast to Aschauer's estimation of approximately 40 per cent at the national level.

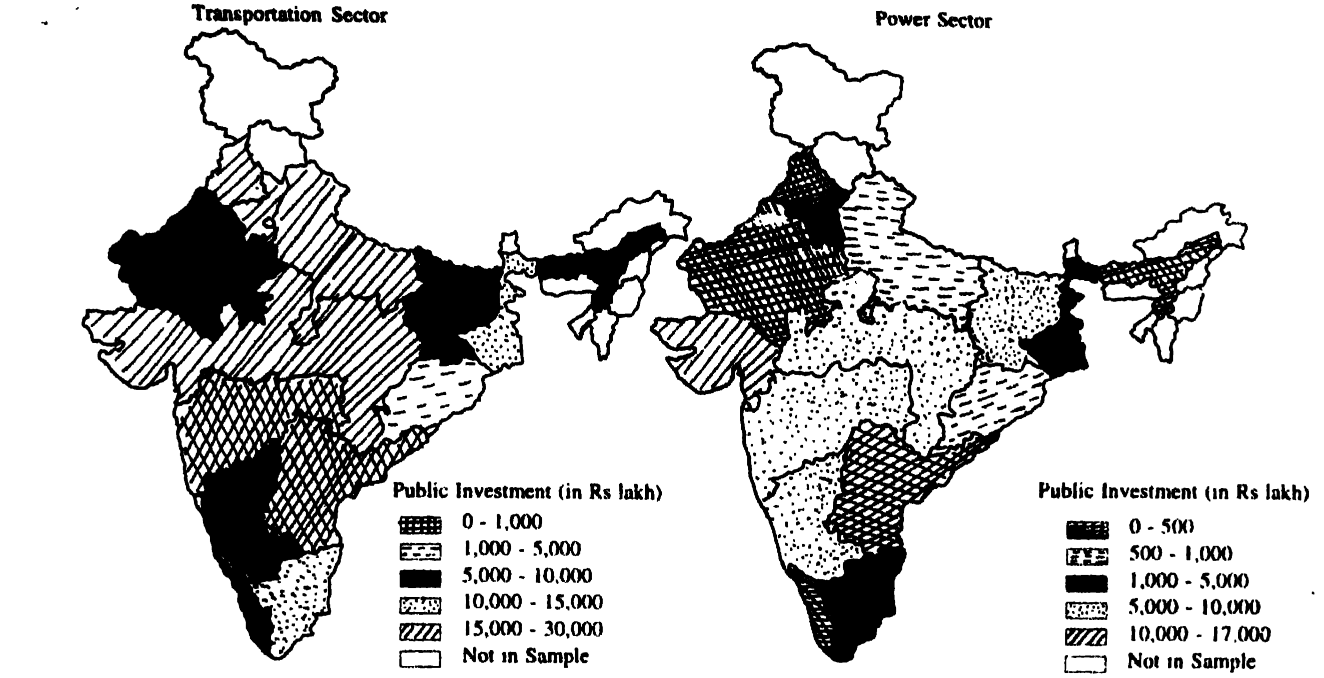
Hulten and Schwab (1993) point out that the effects of increases in public capital will be greater in the initial stages of development, when the stock of capital is relatively low, than in mature societies. This would indicate that time periods under consideration influence outcome and studies as those done by Aschauer would have differed in the initial years (say 1949-1970) and the latter years (1971-1985) of his study. Thus, the methodology used by Aschauer (1989) appears to have over-estimated the total impact of the productivity of public capital. This is consistent with Mas et al's (1995) study on Spanish regions for the period 1964-91 that concluded that while public capital stock of infrastructure significant positive effect on per capita gross value added at factor cost (estimated elasticity is 8 per cent), the elasticities derived from the same model for different sub-periods of 1964-91 revealed that the effect of infrastructures on the productivity of Spanish regions decreased over time. These findings suggest that the initial stock of infrastructure is important in determining its effects on growth. Higher initial endowments possibly translate into smaller impacts on output.

Infrastructure and private capital: There are several studies suggesting that public investment in infrastructure and private investments are complementary. These studies are based on examining the relationship between infrastructure and private capital in industrialised and developing countries.

Seitz and Licht (1992) examined the relationship between infrastructure and public capital for 11 federal states in (West) Germany for the period 1970-1988 using a trans-log cost function. Their study concluded that public capital (infrastructure) formation encourages private investment. The study also empirically demonstrated that a distinction between investment in structures versus equipment is of critical importance in the context of private capital because the effects on the former are of far greater importance than the effects on the latter.

Greene and Villanueva (1991) analysed private investment data for 23 developing countries over the period 1975-87 and showed that the ratio of public sector investment to GDP had a significant positive effect on the ratio of private sector investment to GDP. Pooled annual time-series cross-section data for nine countries – Barbados, Costa Rica, the Dominican Republic, Guatemala, Haiti, Honduras, Mexico, Panama, and Trinidad and Tobago – for the period 1971-79 show that the level of public sector investment has a positive effect on private investment [Blejer and Khan 1985]. Specifically, the study concluded that infrastructure in-

Map 1: Public Investment in Key Infrastructure Sectors 1991



Source: Reserve Bank of India; various state governments.

vestments (as proxied by the longer-term trend level of real public investment) exert a positive influence on real private investment.

One of the important aspects of infrastructure investments is that they have different short- and long-run effects. Most of the literatures on infrastructure productivity and economic analyses suggest that short term effects are in the form of increases in employment (construction) and long-term effects include both changes in employment and private output. A recent study by Shah (1992) tested these effects using a system of non-linear equations consisting of variable cost function and derived input demand equations for 26 Mexican three-digit industries (970-1986). The findings revealed that public infrastructures (electricity, communication, and transportation) have a weak complementarity with private capital only in the long run. However, labour shows complementarity with infrastructure in both short- and long-run with the degree of complementarity being higher in the short run as opposed to long run.

In addition to the complementary effects of public infrastructure investment and private capital, infrastructure influences location of private industries. Bartik (1985) suggests that road linkages emerge as an important factor influencing the location decision of the firms. Bartik (1985) used a conditional logit model estimated with Dunn and Bradstreet 1972 and 1978 data for 1607 manufacturing plants to analyse business location decisions. The results indicated that public infrastructure, e g. roads can attract new business. A 10 per cent increase in the number of miles of road increases new business location by about 4 per cent. Button. Leitham, McQuaid, and Nelson (1995) conducted a survey of new premises in the industrial/business park zoned land of Strathclyde region of Scotland for the period 1981-91, where road linkages emerged as the most highly rated factor influencing the location decision of the firms.

In addition to the complementarity between public infrastructure and private capital that enhances output and incomes in a region, it is possible that infrastructure investment may influence regional disparities by changing the competitive and comparative advantages of neighbouring states. When factors of production are mobile, public infrastructure investments in one location can draw production away from other locations. For example, infrastructure investments in region X may lead to enhanced productivity in region X, and may also have significant (positive and negative) spillovers in region Y. This could lead to a change in regional comparative advantages and may increase regional disparities. Boarnet (1997a) recently used data for California counties from 1969 through 1988, and demonstrated that such negative spillover effects are shown to exist in the case of street and highway capital. The analysis shows that changes in county output are positively associated with changes in street and highway capital within the same county, but output changes are negatively associated with changes in street and highway capital in other counties. These results suggest that *infrastructure-rich locations may*

Table 4: Empirical Estimates for Leading States

Variable	OLS	OLS (Fixed Effects)	Seemingly Unrelated Regression (SUR)	Two Stage Least Squares
Private capital investment (PVK)	-0.045	-0.011	-0.02	-0.018
	(-1.36)	(-0.52)	(-1.72)***	(-0.70)
Public infrastructure (economic) investment (PHY)	-0.113	-0.062	-0.043	-0.074
	(-2.35)**	(-1.81)***	(-4.20)*	(-1.05)
Public infrastructure (social) investment (SOC)	0.418	0.307	0.323	0.344
	(7.72)*	(6.35)*	(11.97)*	(4.53)*
Private employment (PEM)	-0.291	-0.056	-0.219	-0.193
	(-9.08)*	(-0.24)	(-1.45)	(-0.62)
R^2	0.72	0.91		
F-statistic	25.45*	118.01*		

gain output at the expense of the places from which factors of production migrated.

The review of select issues linking physical infrastructure and economic growth suggests that infrastructure investments influence regional growth. However, the effects of these investments on output, incomes, and private capital formation depend on level of development, initial endowments, and inter-jurisdictional spillovers, among other factors. It is important to be sensitive to temporal and spatial effects of these investments during policy making as well as estimating the relationship between these factors.

The following part of the paper presents results from a study of the Indian economy, and focuses on the effects of economic and social infrastructure investments on regional output in Indian states. The empirical findings from the study have been linked to some of the key ideas that emerge from the review of the literature.

III
Understanding the Role of Public Infrastructure in Regional Development: Analysis of the Indian Experience

The role of public infrastructure in regional growth was reviewed in the previous part of the paper. The results of an empirical study to test the efficacy of these investments in facilitating growth in 15 Indian states is presented in this part of the paper. The empirical work examines the role of public infrastructure investments in lagging, intermediate and leading Indian states. India appears to be a suitable laboratory for examining regional growth due to the availability of reliable data, and diversity in geographical, economic, and cultural conditions.

Part IIIA forwards the hypothesis, methodology, and description of data. Part IIIB presents results from the empirical analysis and provides some interpretations of the results.

IIIA: Hypothesis, Methodology, and Description of Data

The varying effects of infrastructure in stimulating growth in lagging, intermediate and leading Indian states are examined in this part of the paper. The hypothesis being tested is that leading, intermediate and lagging regions are structurally different, and infrastructure investments influence growth in these regions through different pathways.

Sources of Data: Data for the empirical studies were obtained from the National Institute of Public Finance and Policy, Society for Development Studies, Reserve Bank of India Bulletins and the National Census. The highway network figures were obtained from the ministry of surface transport, government of India. Data sources for gross energy generation are *Public Electricity Supply All-India Statistics* (various issues), Department of Power, ministry of energy; and Kendriya Vidyut Pradhikaran, Gram Vidyutikaran Nideshalaya CEA, New Delhi. Data sources for public investment figures include annual budgets of the state governments and the Reserve Bank of India. Data for the number of hospital beds are reported in *Health Information in India* (various issues), Directorate of Health Services. Other data sources include the Economic Survey of India, and the Annual Survey of Industries.

The collection and assimilation of data sets is one of the most challenging features of conducting empirical research in developing countries. This has been the case for the study of the Indian economy where assimilating data from various sources was a cost and time intensive exercise.

Methodology: A common econometric approach is to estimate a modified Cobb-Douglas production function in which infrastructure investment is treated as an input to production. Earlier econometric studies on the relationship between productivity and infrastructure investment carried out by Aschauer (1989), Munnell (1990), and Holtz-Eakin (1992), as described before, included the stock of public capital in an aggregate production function. The production function without public capital is written as:

$$Q_{it} = \beta_0 L_{it}^{\beta_1} K_{it}^{\beta_2} e^{\varepsilon_{it}} \qquad \ldots(1)$$

Q_{it} = output in region (i) in time (t), L_{it} = employment in the private sector in region i, time t; K_{it} = private capital investment in region i, time t The government capital stock (G) is included in the relationship by modifying (1).

$$Q_{it} = \beta_0 L_{it}^{\beta_1} K_{it}^{\beta_2} G_{it}^{\beta_3} e^{\varepsilon_{it}} \qquad \ldots(2)$$

Taking logs of both sides of the Cobb-Douglas functional form, and denoting the operational variables for private capital investments (K), private employment (L), and public infrastructure investments, we get:

$$\ln Q_{it} = \beta_0 + \beta_1 \ln PEM_{it} + \beta_2 \ln PVK_{it} + \beta_3 \ln PHY_{it} + \beta_4 \ln SOC_{it} + \varepsilon_{it} \qquad \ldots(3)$$

where PEM represents private employment, PVK represents private investment, PHY stands for public investments in economic (physical) infrastructure and SOC represents public investment in social infrastructure.

In this paper, public expenditure in economic and social infrastructure, private investment, and private employment have been used as explanatory variables for per capita state domestic product (SDP). Data for public expenditures were obtained from the state budgets. Public economic infrastructure expenditures were calculated by summing annual state expenditures on transportation, power, telecommunication and irrigation. Public social infrastructure expenditures were calculated by following the same procedure for education, water supply and sanitation, and medical and public health. Private investment was measured by the annual loans disbursed by All India Financial Institutions (AIFI) to the private sector. These data were available at the state level. Private employment is measured by the end of year employment in the private sector. Output elasticities of these variables are taken to examine the contribution of each factor in explaining state level economic growth.

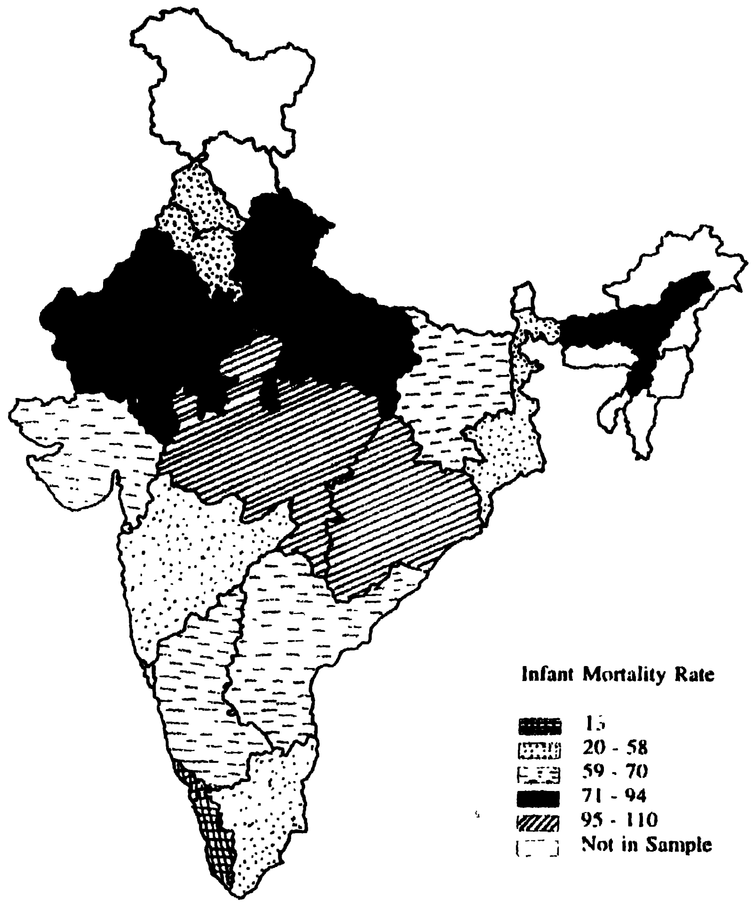
IIIB: Results from Empirical Analysis and Linkages with Policy

The Cobb-Douglas framework used in the empirical analysis computes the output elasticities of private employment, private investment, public expenditures in

social (water supply and sanitation, education, medical and public health) and economic (transportation, power, irrigation) infrastructure. The elasticity estimates the per cent change in output (per capita GDP) with a 1 per cent change in the explanatory variable (capital and labour).

The states were classified as lagging, intermediate, and leading based on per capita state domestic product. The classification of lagging states is consistent with the Planning Commission's definition of backward states. The lagging states in the study are Bihar, Madhya Pradesh, Orissa, Rajasthan, and Uttar Pradesh; intermediate states are Assam, Karnataka, Andhra Pradesh, Kerala, Tamil Nadu, and West Bengal; and the leading states are Punjab, Haryana, Maharashtra, and Gujarat. The results from the empirical study are presented in Tables 2, 3, and 4. The rationale for using separate regional panels and not including all states together is that these states have different levels of development and the infrastructure productivity literature (see review in Section II) suggests that the effect of infrastructure investments are sensitive to level of development and initial endowments. This supports the hypothesis that leading, intermediate and lagging regions are not homogeneous but are structurally different and need to be examined separately.

MAP 2: INFANT MORTALITY RATES ACROSS INDIAN STATES 1993



Source. Sample Registrar System, Registrar General of India, Ministry of Home Affairs, New Delh

The model was estimated using a Cobb-Douglas specification. The production function was estimated using several estimation procedures. These include the Ordinary Least Squares (OLS) model, Fixed Effects (FE) model, Seemingly Unrelated Regression (SUR) model, and the Two Stage Least Squares (TSLS) model. Various estimation methods were used to examine the sensitivity of the estimates to model specification. For the three panels examined in the study, the OLS method does not appear to account for inter-state differences through the common constant term. The FE model is a better specification to account for differences across states in the regional panels. Some interpretations of the results for the lagging, intermediate and leading states are presented below.

For the lagging states in the study, results from the FE model indicate that public investments in economic infrastructure display negative output elasticity. This implies that at the margin, an increase in economic infrastructure investment has negative effect on regional output. Similar negative elasticities are observed using the SUR and the TSLS estimation methods. Private capital investments do not display significant output elasticities. Public investments in social infrastructure and private employment consistently show positive output elasticities across the three estimation procedures (FE, SUR, TSLS).

These results indicate that social infrastructure has a positive effect on growth in lagging Indian states. Improvements in health care and education facilities contribute to the formation of better qualified and healthier labour force directly translating to higher productivity. State government policies in lagging states may be best suited towards investing in social infrastructure as well as developing a pro-business environment. Private employment, also a significant determinant of growth in lagging states, is strongly influenced by availability of trained and well qualified force. The lack of adequate human capital may be an important reason for the low levels of regional output as well as sub-optimal utilisation of private capital.

In the case of intermediate states, public expenditure on social infrastructure appears to have strong positive (statistically significant) output elasticities. The results from the various estimation methods (FE SUR, TSLS) suggest that the output elasticity of social infrastructure investment range from 0.30 to 0.34. The estimate for private investment, public economi infrastructure investments, and privat employment are either negative or insignificant.

The leading states in the study show results similar to those obtained for intermediate states. Private investment, publi economic infrastructure investment, an private employment have either a negativ or insignificant effect on regional output On the other hand, social infrastructure investments have positive and significan effects on regional growth with elasticitie ranging from 0.31 to 0.34.

A common theme then emerges across all states is that investments in socia infrastructure have positive effects or regional growth. Investments in education, public health, and water supply and sanitation have externalities and clea public good elements. This theme is consistent with the works of Niles Hanser (1972) and other prominent scholars in the fields of regional science and economi

development who suggest that the quality of human capital ranks very high in the development of lagging areas. These results are transferable to the leading states as there exist significant intra-state disparities in the leading states with polarised growth occurring around major urban centres. For example, in 1993 the per capita output for Mumbai was estimated at Rs 8,633 [Society for Development Studies 1995] compared to Rs 3,696 for the state of Maharashtra. The large population base in Mumbai coupled with high output would tend to skew the state level per capita output data, and not take intra-state variations into account. State level analyses do not highlight intra-state disparities, and the output effects of social infrastructure may be more visible in the lagging areas of the leading states, rather than the state as a whole. More disaggregated studies at the district level would be necessary to examine this hypothesis.

We are familiar with the disadvantages lagging areas face due to deficiencies in health, education, and labour force training. However, in addition to the clear linkages with economic productivity, lack of investment in human resources also has adverse effects on the political and business leadership of these areas. It is quite likely that lack of alternative opportunities coupled with selective out-migration have removed dedicated, well-educated, and motivated men and women whose views extend beyond limited local horizons. In an era of change and liberalisation, investment in human resources will be critical for developing the comparative advantage of less developed areas.

IV
Policy Implications and Direction for Future Research

Regional development instruments used across the world have been varied and their impact has not necessarily been uniform. In most cases, it has been difficult to isolate the efficacy and impact of individual instruments, as regional development is a function of many activities.

In most cases, 'sustainable' regional development is not likely to take place if the regional employment base is not developed. Fiscal policy, monetary policy, and public expenditures have been the normal routes to attain balanced regional development. The evidence on the effectiveness of these routes to regional development is not adequate to have confidence in their appropriateness as growth instruments, especially in developing countries where regional poverty is of primary concern.

In addition to provision of infrastructure and diversification of the regional economic base, income and employment generation activities have been important regional development objectives. However, fiscal policies have traditionally focused on attracting investments by providing tax incentives through a combination of depreciation allowances, investment allowances, and export promotion discounts, among others. Fiscal measures like commodity taxation, including sales tax which are found to be shifted forward, and VAT that reduces double taxation of goods in the production cycle, also seek to reduce operational costs of industries and contribute to higher rates of return. None of these fiscal instruments seek to directly influence the employment generation process. Public expenditures may be a more effective strategy than investment stimulating fiscal breaks for stimulating regional growth, provided that the activities are properly assessed and are not provided across the board (targeted), as is often the case in public expenditure programmes.

The direct impact of fiscal policies on regional development, especially in low-income situations has not been noticeable. A major limitation in most studies evaluating the efficacy of fiscal policies has been the inability to simulate the counterfactual. To quote Lent (1967), "It is impossible to determine conclusively the 'success' or 'failure' of any country's investment-incentive programme because we do not know what the record would have been in its absence". In this regard, development of methodologies to specify the counterfactual and collection of reliable data should be very high on the research agenda of studies mapping the relationship between fiscal policies and regional growth.

In early stages of development, investments in network infrastructure may be the most important contributor to regional economic growth. However in the long run – in intermediate and latter stages of development investments in soft infrastructure like human capital formation, institutional co-ordination, infrastructure to reduce transaction costs and improve entrepreneurial capabilities in a region are likely to emerge as important factors in stimulating regional growth. Other factors like fiscal breaks, subsidised credit, infrastructure development through public expenditures, liberal planning norms, and streamlining of administrative procedures and regulatory mechanisms can at best, be supportive elements in the development of lagging regions.

Direction for future research: In most developing countries, the absence of reliable databases at the regional level reduces the scope of empirical testing. Data collection and dissemination at the regional level needs to be high on the research agenda in developing countries. In India, the availability of public investment and private investment data at the district level would be useful for examining intra-state as well as inter-state growth effects. Another important contribution that could be made to the existing body of knowledge would be the inclusion of concepts of theoretical spatial economics and spatial econometrics in empirical studies. Identifying the spillover effects (both positive and negative) of network infrastructure is very important for policy decisions regarding potential regional competition and co-operation for infrastructure investments.

While this study has not shown positive linkages between economic infrastructure investments and regional economic growth, it would be naive to say that the stock of infrastructure does not influence economic performance at some level. The simple uni-directional causal model does not appear to capture the multiple impact path-potentials between infrastructure and growth. Further, there appears to be issue of appropriate aggregation levels. In addition to being sensitive towards scale and spatial issues, model specification and development of conceptual linkages are central to work on infrastructure productivity. The explanatory variables in most empirical studies (including this study) are considered to be exogenous to the model. However, it has not been determined whether the neo-classical production function approach used in most models is an appropriate functional form to specify the relationship between infrastructure investments and economic growth. Hence, the statistical results may partially be a product of model mis-specification. The use of better econometric specifications (includes endogenous models, accounting for spatial spillover effects) significantly reduces the elasticity of public infrastructure as a component of economic growth [Gramlich 1994; Boarnet 1997a, 1997b; Kelejian and Robinson 1997]. The cost and time involved in developing these models at the regional level in a developing country like India has limited the scope of such empirical testing at the present time. However, such extensions need to be part of the future research agenda.

Notes

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1 State Domestic Product reported in current prices.
2 It must be noted that there are drawbacks to this approach. If regions are confined to administrative boundaries (i e, states), then it is possible that the average income in the state does not correctly reflect internal disparities. There may be poverty issues that need to be examined by defining regions across states or sub-regions within a state.
3 National and regional development strategies have often been related to patterns of infrastructure investment [Rosenstein-Rodan 1943; Nurske 1953; Hirschman 1958; Nadiri 1970].
4 Economic infrastructure includes roads, streets, bridges, telecommunications, power, water treatment and distribution systems, irrigation, waterways, airports and mass transit.

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Education Guarantee Scheme

What Does It Claim?

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Amita Sharma

RAHUL (*EPW*, January 9, 1999) challenges what he terms "tall claims" made by us in our discussion of the Education Guarantee Scheme of Madhya Pradesh (*EPW*, September 6, 1998). It would have contributed to a more pointed discussion if he had raised facts to counter the so-called 'claims' by sharing his experiences of how the EGS is shaping on the ground rather than tilt at hypotheses. He has also chosen to ignore the conceptual analysis in our paper which explained the rationale, and the context which led to the EGS. His observations nevertheless merit discussion because they relate in general to the concern for quality education and because they provide an opportunity to elaborate on some of the issues raised in our paper.

First, let us take the claims. EGS did make the claim that simple solutions engineered through community participation supported by local governments like panchayats and the state government can quickly close the gaps in access to schooling facility. In our opinion this had to precede any other issue and the elite of this country ought not to have even a right to discuss primary education unless it has ensured this as a basic right. Recently Amartya Sen while releasing the PROBE report (Public Report on Basic Education) in Delhi on January 2 drew attention to the 'curriculum debates' that occupy our attention even when basic schooling facilities are denied to millions of our children. The "tall claim" made in our paper has really been the ability to universalise access in a time-bound manner through EGS. We quote, "The EGS was in short an effort of the state government to universalise access to schooling facility focusing on the hitherto unreached sections in the quickest possible time".

That access is a problem and a major impediment to steady participation of children in schools needs to be understood clearly both in terms of the *scale* of the problem and its *complexity*. The PROBE report exposes the myth that schools are available while the latest annual report (1997-98) of the department of education, government of India, claims that "accessibility of schooling facilities is no longer a problem". PROBE notes that "not just physical distance but also social distance creates barriers to schooling since villages are divided into separate hamlets and children may be unwilling to go from one hamlet to another". Well, we in Madhya Pradesh had already acknowledged this as early as 1996 when our house to house survey through the Lok Sampark Abhiyan which was a detailed mapping of gaps in access to schooling facilities revealed the gap and, as we wrote, "the EGS was created in response to this need". There were several areas that remained unserved by the schooling system. In addition as our paper pointed out, the problem of access was complicated by the distinct "habitation pattern of tribal areas where people live in dispersed habitations called majra, tola, phalia" which "meant that even if a school came up in one hamlet of the village, several hamlets of the same village could not access it because they were often as much as 5 km away from the main village".

The problem of geographical access is linked with social factors and most often the hamlets on the periphery of the main village tended to be those inhabited by the scheduled caste or scheduled tribe groups. How this fundamental difference made by the EGS in providing first-time access, after 50 years of political democracy, to these deprived children has been overlooked by Rahul beats our understanding. In the 19,860 hamlets where schools have now opened, there was simply no pre-existing facility.

Now let us take the issue of quality. Before even we begin discussing this issue we would like to state a very amusing experience. Our experience has been that ever since the EGS started as an alternative community-centred model, some of the most ardent critics of this have been from the NGO sector who never tired of telling governments on the need to move to community-centred alternatives. Suddenly they see a role abnegation by the state and our simple question is why was the non-provision of schooling facility in the 19,000 villages not seen as role abnegation? When the PROBE report says that 50 per cent of government primary schools do not transact effective education, do we want more of the same or change the methodology to bring in community and panchayat control? Let these issues pass for the present. Let us take up Rahul on the feasibility of EGS to provide quality education because it provides us an opportunity to discuss a very vital concern.

Rahul complains that "they have not bothered to define exactly what they mean by quality education". Our paper succinctly states "quality parameters like training (on par with the formal schools), cluster level academic support and supervision and supply of inputs like free teaching-learning material and midday meals" as essential inputs in EGS schools. The paper also acknowledges that an important quality "attribute which may be seen to disadvantage the EGS school today is that it functions out of a space provided by the community to conduct teaching-learning. Conceding that the nature of space also, along with several other attributes, has a role in ensuring quality the EGS schools may need to be enabled to improve the learning spaces." The paper further anticipates the need for "meeting the demand for more teachers and ensuring training, specially multigrade training". Teacher training is not just inductional but recurring annually for an average of 12-15 days. EGS also recognises that quality schooling is facilitated by involving the local community. Therefore our paper argues that desirable attributes of a formal primary school should be acquired by EGS "in a way that does not negate its community-centredness".

Summarised, the paper's discussion on quality identifies quality inputs in a holistic manner because the school is an integrated functioning of many factors and the EGS seeks to build quality on all these parameters: academic and managerial. The tragedy about quality debates has been that these have so far largely been confined to debates on scholastic issues. *We see quality on two specific prongs: academic and managerial*. If management issues are not addressed quality of education will not improve. As the paper points out "most evaluations of the primary education have shown that it is a lack of accountability of the teacher to the local community that has been the major cause of poor performance and so the EGS may result in strengthening the primary education sector as a whole by bringing in

greater community control". EGS aimed at a paradigm shift from the primary school as a local appendage of the large bureaucratic system to community managed schools by "forging a partnership between state government, panchayats and communities".

To reiterate, we need a more comprehensive view of quality than those Rahul identifies. Rahul's understanding of quality is gleaned from phrases like "expertise to compete and get into elite professions...at the end of schooling", that teachers need to be "competent" and "committed", "trained in new methods of teaching", etc, all of which account only for scholastic inputs. He seems to have completely missed the fact that academic transactions are not in isolation of a whole system ranging from simple basics of books in hand to the complex relationship between motivation and accountability. The EGS seeks to address this complexity. Complex problems however do not need to have complex and 'vexatious' solutions and the simplicity of strategies does not necessarily reflect a simplistic analysis of complex problems.

EGS's comprehensive quality parameters indicate to anyone familiar with government schooling systems that the main emphasis is to integrate critical factors that affect quality. Part of the complexity of the quality issue is that often only scholastic issues are laboured with no attention to the other factors mostly relating to management that affect quality. Recent writings on school quality fortunately have started to look at a larger range of factors as affecting school effectiveness.

Since EGS provides a teacher to a group of 40 children (25 in tribal areas), its teacher-pupil ratio works out to an average of 1.30 for tribal and non-tribal areas. The teacher-pupil ratio (TPR) in EGS is always at manageable level as against the present 1:50 TPR for formal schools, "hopelessly outnumbered by students" as Rahul bemoans. In fact by its very design the EGS maintains this low TPR as stipulated by the Yashpal Committee set up by the government of India to recommend on educational reforms. Academically, EGS builds on the insights that have developed over the past few years both by adopting what is emerging as potentially viable and modifying what seems necessary. Therefore, it uses the curriculum and the new teaching-learning materials of the formal schools which in MP have been recently revised and made competency-based on a field trial basis with the collaboration of NGOs. Therefore there has been no compromise on the content of teaching.

Let us examine the process. One, EGS is not a condensed course seeking to crash a full five-year curriculum into part-time education as NFE does or even as TLC seeking to impart education equivalent to the third standard of primary schools in six months' time. Rahul has summarily clubbed these three programmes together which appears to have been the result of his confusion regarding their academic structures. The EGS is not a campaign like TLC nor part-time like NFE. A major weakness of NFE was its unrealistic effort to impart a full-scale formal curriculum through condensed course duration of two-three years using the same uncondensed materials. The paper makes very clear that the EGS could grow into a school that offers education up to class 5 of the formal school by incremental addition each year. Two, teacher training is on par with the formal system. Each year the guruji undergoes a 12-15 days training course.

The EGS has been captured in the academic school support and supervision system created through the cluster resource centres which are academic resource support centres for a group of 8-10 schools. The important point to note here is that EGS has been involved with this quality reform process which equips EGS not just for delivering only functional literacy but the entire range of competencies identified for the formal stage. The paper claims that in EGS the effort is to identify and assimilate qualitatively desirable attributes of a good school and not that EGS is an instant delivery of quality.

Quality outcomes are not overnight miracles, not even for well-endowed private schools. The EGS is two years and 22 days old as of January 22, 1999. To assess its academic quality presently would be pertinent and desirable, but to make categorical and conclusive judgments right now would be premature and rash even in the opinion of the most fanatic enthusiast for quality education.

Rahul is sceptical of whether all these qualitative initiatives can be delivered through the guruji. He presumes that these local resident gurujis of the EGS schools have inferior qualifications. This is contrary to facts. The educational eligibility of the guruji of the EGS school, the shiksha karmi and the assistant teacher is higher secondary and so there is no lowering of educational qualifications for the EGS guruji. On the contrary, the data show that 88 per cent gurujis are higher secondary, 9 per cent are graduates and 3 per cent post-graduates. There are no gurujis below higher secondary, whereas there are 24 per cent assistant teachers of the formal government system who are below higher secondary and 31 per cent who are higher secondary, i e, 55 per cent of the highest paid primary school teachers are not more qualified than the gurujis. The second worry is that they are being underpaid. Here, Rahul's own statements contradict his suspicion that performance levels and payment levels have a simple equivalence. He is at pains to point out that "good teaching is a painstaking work and the average teacher is a government servant who does not like to take pains". He also finds that despite "an increase in the salary as an incentive" the "level of absenteeism among teachers is horrifying". So what is the inference? Surely, you want a change. Try local accountability is what we say. Obviously, automatically increasing salaries have not meant an automatic increase in the performance quality of teachers and have only rendered them into 'government servants' and less as teachers. Herein is a complex issue of what makes the teacher perform and Rahul has really simplified this complex issue into one of higher salaries, even against his own observations on what is happening in the primary schools. Incidentally, it would be revealing to Rahul that the costly private schools whose quality he has faith in pay their teachers much less than the government schools, ranging from an average amount of Rs 400 to 4,000 pm in Bhopal (in a range equal to a guruji and much less than the assistant teacher).

Besides minimum educational qualifications (in this case on par with other teachers) and academic preparation of the teacher, an important factor relates to how does the teacher regard himself and (this follows from the first question) to whom does he think he is accountable. The traditional teacher considers himself a government servant, a point that Rahul laments as detrimental to quality and accountable to no one because there is no system which links his performance with his service benefits. The EGS was an effort to make the teacher accountable to the community which is why the community chooses the teacher so that he does not regard himself as a government servant. It was also an attempt to initiate a system of gradually linking performance with remunerations, by starting the teacher on an honorarium which can be slowly built up as teacher and school performance strengthen. Our paper indicates that the "scheme also plans to provide for the panchayats' to add on to the salary of the guruji from the panchayats' own resources". In the face of the vast non-performance of the system managed by highly paid teachers enjoying

complete security and not accountable for what they teach, the EGS argues in favour of teachers on contract, from the local community and accountable to it. The argument is in favour of the community of learners because it sees the teacher as subordinate to community interests and does not place paramount value on teacher salaries seen in isolation from the interest of the community whose education is their responsibility.

The issue of local accountability is critical. The EGS stems from the belief that community involvement in school management and the sense of local ownership of the school by the community is what will make the difference, academic inputs and a teacher with basic educational qualifications being available. Is it not obvious that a scheduled caste guruji teaching his scheduled caste brethren will have the empathy to transact a liberative pedagogy irrespective of whether it is imparted in training? The word community has become a buzzword and so suspect and so perhaps Rahul has chosen to ignore it completely. But in fact the EGS seeks to work on a conscious strategy of de-bureaucratising educational management by giving specific powers to the local people to demand a school and choose their teacher as well as by decentralising powers to the panchayats.

In our country some sections of society that seem very suspicious of panchayati raj seem to be those very sections who had until now argued for de-governmentalisation and community action. Legitimate political structures like panchayats seem to be anathema to some of them, and pardon our saying so, some of these come through in Rahul's diatribe. He writes that the "sarpanches were told to get going and find suitable boys or girls to...provide education in deprived areas". Panchayats can become effective and key agents for bridging community and schools – a role they can come up to only by getting a chance to do it. This is certainly a more viable alternative than continuing to perpetuate a centralised and bureaucratic system that so far has only alienated the school from the community. Another instance of baseless statements is "the EGS has begun to falter after the initial stages". Says who? While EGS has constantly sought independent evaluations even in its short history of two years by professionals because it looks upon such feedback as an opportunity for improvement, it would be quite helpless to act on such baseless generalisations.

On the question of costs. Costs need to be viewed in a context of resources that can be made available in a sustainable way, and against a measurement of desired attributes. Desired attributes themselves will range from the base where one begins, which will define the basic – which will be a varying factor, because of initial basic inequalities – to what can be increasingly added on. The EGS emerged in a context of financial constraints and large-scale needs, particularly in backward areas. This was a scenario where the large scale of problems and the limited scale of resources presented two options to the government: defer/stagger action for education, even for providing basic facilities which would have meant another 12-15 years of persistent neglect of the already very deprived areas or to seek innovative and cost-effective options. The government of Madhya Pradesh went in for the latter. The EGS is cost-effective and does not compromise on quality inputs even on a reduced budget by focusing on critical inputs, working through decentralisation, cutting out administrative overheads, and transferring the resources to the children and the school rather than to multiplying an inspectorate bureaucracy and by consciously eliciting a public-private partnership to stimulate local stakes in the school. The issue here is not just how much but on what. The great advantage of EGS is that it integrates costs of different critical inputs into a 'school cost' which reflects its perception of quality as an integrated approach. It does not split up the school into an artificial and undesirable division of teacher salary as school cost and quality costs as add on. In percentage terms, 82 per cent of the more expensive formal school goes into teacher salary, 1 per cent into training and 16 per cent on furniture and equipment and none to the children, whereas in EGS it is 71 per cent on salary, 10 per cent on equipment, 7 per cent on training and 12 per cent on learning materials for children. So the EGS does cost less but improves upon what the present system offers to the child. This is certainly not a claim to the most advantaged conditions of schooling (critical basic inputs have been claimed). It is dependent on a public finance context and needs to be continuously improved through local partnership because that is seen as critical to school effectiveness, a point that our paper had made when we wrote about "gaining desirable attributes of a school in a manner that does not negate its spirit of community centredness". The question is whether it would be better to go on spending on salaries of educational bureaucracy and teachers or to review this and evolve alternatives that orient resources towards inputs and processes that might help create a locally accountable school.

The end, the social sector in our country seems to be for cursing. Everyone is happy bemoaning everything. Well, some of these problems have solutions. If India has to have mass education, we Indians have to devise ways. Social activists are respected by all of us because they have dust on their footwear. However, that is strangely enough converting into an intellectual privilege for shoddy analysis and sweeping generalisations.

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on "Ecological Economics for Sustainable Development"
December 1999

The first biennial conference of the Indian Society for Ecological Economics will be held in December 1999 The conference theme is, "Ecological Economics for Sustainable Development" It is planned as a two and a half day event with plenary sessions, concurrent sessions and panel discussions on selected topics

Papers are invited on the following sub-themes

- Accounting for sustainability concepts and experiences
- Strategy for green growth in developing economics
- Water resources, technology and sustainable development
- Economic recycling and waste management ecological and economic implication for the sustainable use
- Infrastructure and Energy
- Bio-diversity, Water and Air
- Institutions and environmental governance
- Resource Valuation, Management and Policy
- Methodology as central in problems of the environment costbenefit multi-criteria, other paradigms
- Inter species study for human development legal aspects, ethics and equality
- Trade and environment

Papers focusing on inter-disciplinary aspects and highlighting the inter-linkages between economic and ecological/environmental dimensions of the sub-themes shall be given preference They may deal with theoretical aspects and/or present results of case studies using statistical or scientific tools of analysis Papers highlighting developing country problems shall be given preference

Abstracts of papers of about 500-800 words may be sent so as to reach the following latest by April 30, 1999

Ms Preeti Sethi
Indian Society for Ecological Economics
R No 206, Institute of Economic Growth,
University Enclave, Delhi-110007

Authors of papers selected by the Programmes Committee for presentation shall be informed by July 15, 1999 and full papers are to be submitted by September 30, 1999 Venue of the conference shall be announced at a later date Limited support for travel shall be available

C K Varshney
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Transition Themes

Agricultural diversification is being suggested as a possible strategy for addressing the current crisis in the sector in Punjab. Analysis of state-level secondary data and the results of a field survey in Ludhiana district provide some inputs on the potential for agricultural diversification. **A-2** An in-depth resurvey in two villages of eastern UP records the economic and institutional changes occurring in rice production and inquires whether the semi-feudal agrarian relations in the region have permitted expansion of production through new institutions. **A-11** A rapid assessment of water users' co-operatives in Maharashtra – intended to facilitate farmer participation in irrigation – shows that in an expanding area irrigation management has already been transferred to farmers. **A-17**

Expanding Horizons

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Fusion of Opposite Tendencies

Among the oppressed an appeal to caste for political mobilisation is occurring in an effort to subvert the very relations of the varna order; among the established middle classes is occurring a decomposition of consciousness into articulated caste interests of the upper castes; and among Muslim communities there is emerging a split between the masses and the gentry which is realigning interests. This fusion of opposite tendencies makes the process of democratisation complicated. **757**

Populist Pressures

Instead of showing the way towards reforming the financial system to confront the current crisis in the state's finances, Maharashtra's finance minister, in an effort to gain popular support, has taken several steps backwards in his 1999-2000 budget. **738**

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The India-Sri Lanka free trade accord will have far-reaching implications for both countries and needs to be implemented ensuring minimum adjustment cost all round. **750**

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Writing New Texts

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Events at the Baba Budangiri shrine in Karnataka throw light on how class factors are intersecting hindutva forces to produce perhaps a lull in the latter's activities. **746**

Prejudiced Forums

The recent killing of a Black student in Britain and the report of the enquiry into it expose racist tendencies in the country's law enforcement bodies. **748**

Misinterpreting Muzaffar Ahmed

ADITYA NIGAM's 'Marxism and the Post-colonial World' (January 2-8/9-15, 1999) contains certain misreadings of Muzaffar Ahmed, Peasants and Workers Party (PWP) which was later renamed Workers and Peasant Party (WPP) was the open organisation of the CPI then forced to work secretly. Nigam, it seems, has missed this simple fact though it is explicitly stated in Muzaffar's memoirs. It is obvious that Muzaffar and his comrades were seeking an alliance of workers and peasants. Forming a party based on a single class, as Nigam believes (pp 41-42), was never the aim of the communists in India or for that matter anywhere else in the world. The declared aim was to form a party multiclass in composition but led by the working-class. It was this conceptual understanding which prompted Muzaffar Ahmed and other communists to press for a change of name at the PWP conferences, first in 1926 and then successfully in 1928. The protracted process reveals the attempt to establish working class hegemony over the democratic block along lines advocated by Marx himself. Nigam's contention that 'fear' of 'expulsion' and 'ridicule' by the Comintern made Muzaffar press for a change of name is laughable. The spectre of Comintern's omnipotent control did not extend as far as the CPI. In fact, in the 1920s, Muzaffar was the Comintern's only conduit in this part of India and there was no one here to expel him. The absence of Comintern's adequate communication is humourously recounted in Muzaffar's memoirs. A self-critical humour is also evident in the lines recounting PWP conferences which Nigam may have missed. Muzaffar's reticent humour is more apparent in the Bengali original than the English translation. It was his reading of Marxism-Leninism rather than Comintern's ideological and possibly punitive measures which made Muzaffar act the way he did. The same ideological understanding prevented him from drawing the conclusion Nigam would have liked him to draw in the matter of M N Roy's expulsion. The debate with M N Roy was, once again, not about class composition of the Communist Party but which class would lead it.

For men like Muzaffar 'epistemological leap' from religio-nationalist identity to communist identity was mediated by atheism. Transition from a religious consciousness to an areligious one represented a rupture whose depth remains yet to be ascertained. Muzaffar arrived at atheism and then communism or both came to him together. Atheism did not follow communism, as Nigam holds. But then failure to understand this in the late 20th century reflects not just confusion about the past but also present dangers. Nigam would do better to reserve terms like 'pathetic', 'desperate', 'frivolous' and the overall patronising and derisive tone to himself rather than Muzaffar, who at least had the rare courage to reject 'community', 'nation' and the politics based on them at a time when most freedom fighters succumbed to one or both.

If we are to resist the politics of hindutva, the significance of the rupture between individuals like Muzaffar, on the one hand and their 'community' and 'nation' on the other has to be recorded. Mainstream nationalism in Bengal, dominated by the Hindu 'bhadralok', excluded the interests of the common people, mostly peasants. Muslim separatism, a reaction to bhadralok domination mobilised Muslim peasants but worked in the interest of the elite. Since both streams let down the masses and were inextricably linked to 'community consciousness', Muzaffar Ahmed was repelled by both. It was precisely because he could detect the congress of elite-interest and communal/national politics that he turned to communism. This sensitivity is evident in the autobiographical passages on his early life.

SUCHETANA CHATTOPADHYAY

Calcutta

Caste in Census

MY friend, veteran demographer-anthropologist, B K RoyBurman's knowledgeable comment (December 12-18, 1998) remains open to dissent or caveats. The dynamics of market, globalisation and sanskritisation in recent decades has surely changed things a great deal since the censuses of the early decades of independence. His statement towards the end of his note about the difficulties of comparison of caste data between the various censuses strengthens, I think, rather than weakens the case for some fresh data should be in census or through other specially sponsored sample studies is a matter for expert determination. His point about the long time lag between data collection and its availability in any usable form, published or otherwise is well taken. But even with a time lag, extrapolation from more recent data would be more scientific than exclusive reliance on the valuable material, he already knows, is available.

Much of the aversion to collection of fresh caste data has come from social scientists of known anti-reservation inclinations. Let not the logic of this matter be subject to such or opposite biases. He is right about the social tensions attending upon such investigation in today's India. But not knowing the truth could lead to greater tension and violence on other occasions, but caused essentially by the same cause, overlooking caste handicaps and advantages. Certainly, a problem with all ascriptive categories like caste is that their recognition or enumeration tends to harden and perpetuate them. But then overlooking them is no solution either.

S SHUKLA

New Delhi

Food for Thought

THE budget season has produced many reviews of the economy. But not much attention is being paid to the recent trends in the production and consumption of foodgrains. Looking at production, it is worth recalling that net production per head had reached a level of about 450 grams per day even as early as 1961. That level would be enough to feed the whole population by acceptable norms, but for the extremely unequal distribution of income that leaves many in chronic hunger. True, net production per capita has crossed the 450 grams level, going above 500 in a few years during the 1980s and 1990s. But hunger and poverty persist. On the whole, irrespective of how the trend rates of growth are computed, large fluctuations are still the order of the day. Fluctuations fuel inflation.

Output growth for the country as a whole during the 1990s has been below the rate of population growth. So production per capita is exhibiting a declining trend. With impressive growth concentrated in a few states – for example, in the north-west during the 1970s and the east in the 1980s – for most states the story is one of a steady fall in output per head for two decades or longer. In large parts of rural India, where markets have not developed adequately, people eat well when the local harvests are good. All villages supply grain to the outside world, but not many get flows in the reverse direction. In particular, long distance trade does not augment supplies in rural India, especially in pockets of deficit and poverty. In consequence, when production declines, so does consumption.

Data on recent trends in consumption show some remarkable changes during the last two decades or so. The proportion of expenditure on food has been declining, and within the food group, a shift has been taking place in favour of costlier items such as milk and milk products. Symptomatic of this is the observed decrease in the consumption of cereals, even in quantitative terms. Economists have been attributing these changes to income growth and the consequent working of Engel's law: as incomes rise, people spend smaller parts of their income on food. That may well be true in respect of the middle and upper income groups. But the most striking aspect of the observed changes is that they are noticeable even in the bottom-most expenditure groups. Economists are concluding that taste patterns are changing – even among the poor.

Can we uncritically accept these conclusions? There is a puzzle to be resolved. If we define poverty through a food norm, directly or indirectly, the question that arises is why the poor are cutting down on food consumption from levels already deficient, spending more in proportionate terms on items of consumption other than food. The fallacy arises in part from the fact that we are not looking at the same groups of people separated by two decades. We are comparing the poor then with the poor now. Indeed the nature and range of consumption of non-food items have also been changing, even for the poor. It is possible that what is a basic minimum in respect of necessary items other than food has also changed radically. (For example, the poor now spend more on education and health than the poor did in the 1970s.) More importantly, as some suggest, the data on food intake perhaps do not adequately capture food consumed outside home, especially among working people. Finally, there is the matter of availability and prices of different foodgrains. In many regions of the country, the production of inferior cereals has been steadily going down and the consumption of superior cereals – rice and wheat – costlier than other grains, such as jowar or bajra, may simply be a reflection of the disappearance of inferior grains.

Whether demand models employed by economists fully capture the reality of prices and availability of food and the non-existence of markets is certainly a matter for further debate. What makes it difficult to accept the low food intake among the poor as a reflection of a new taste pattern is that if the prices are low the poor will eat better. This is amply demonstrated by what has happened in Andhra Pradesh, where poverty ratios have dramatically declined, thanks to subsidies for food provision. It is easier perhaps to accept the low food intake as a conscious choice among the poor. But then we must revise our notions about the poverty line. We can thereby alleviate poverty through statistics.

NATO ATTACK

UN Diminished

THE failure of the United Nations Security Council to approve of the Russian resolution demanding immediate stoppage of NATO's aerial attacks on Yugoslavia raises a number of serious questions. The immediate question however is whether hereafter a nation or a group of nations can attack another sovereign nation, not because the Security Council authorises such action or because such action is taken in self-defence, but because the invading nation or group of nations considers it necessary and justified. In this particular case, the justification offered is that such action was necessary in order to prevent a humanitarian catastrophe. But should not the prior mandate of the Security Council have been obtained before undertaking the type of lethal action in question? Why was the Security Council sidelined? Particularly when the Council had been seized of the humanitarian tragedy unfolding in Kosovo through a resolution passed only in September 1998 calling for an end to the Yugoslav offensive against Kosovo's Albanian population, but without sanctioning the use of force.

It is noteworthy that at every stage the UN was deliberately kept out of the negotiations immediately preceding the present air attacks, possibly because the NATO combine in general, and the US in particular, anticipated strong disapproval of military action, because such action would raise complex questions about the use of force against a sovereign country in order to make it agree to an arrangement within its recognised borders unacceptable to the government in power. This could have far-reaching implications for international order. It is disappointing that UN secretary general Kofi Annan did not take the earliest opportunity to voice his opposition to the manner in which the UN was being sidelined. Even the government of India failed in not having raised its voice sufficiently early against the coercive methods being applied by the NATO combine, under Anglo-American leadership, on Yugoslavia.

However paramount the protection of the rights of minority peoples within a country, this objective cannot be allowed to be used, and that too selectively, as the basis for violating the territorial integrity of a sovereign country. It cannot be overlooked in this context that within NATO itself repression against minorities has been glossed over. Does Turkey's repression of the Kurds which forced as many as a million, if not more, Kurds to flee their homes not amount to a humanitarian catastrophe? In the US backyard, Columbia has been witness to mass refugee flights on account of state repression. That there are skeletons in NATO's cupboard cannot be denied. How then can anybody take NATO's humanitarian concerns seriously and accept it as the upholder of humanitarian objectives?

What is most regrettable about the NATO aerial action against Yugoslavia is that, as a consequence of this action, the UN gets badly diminished, in terms of its authority and prestige. It is a danger that the international community cannot afford to overlook. The decline of the authority of the UN is bound to lead many people, particularly those who have always advocated unilateralist security positions, to argue for independent security arrangements which will inevitably result in the revival of arms race. Those who had hoped for a peace dividend after the end of the cold war have now to get ready to see their dreams shattered, because with the end of the cold war and the emergence of a unipolar world dominated by US, there is no knowing when any country may incur US displeasure and become a victim of its military action in one garb or another. The result is also an extremely unstable world, which must eventually lead to the formation of other groupings of countries as countervailing centres emerging to withstand the dominance of one power. The only people who would welcome such an outcome would be those with a stake in the military-industrial complex whose peace nightmares would thus be ended. All others must work to stop this eventuality.

BJP

Showcasing Crime

ANY government at the centre with a sense of shame would have had some qualms in celebrating one year of its rule at this juncture. But trust the BJP for its unflinching brazen-facedness. The Rs 1.5 crore bash in the Hauz Khas monument grounds in New Delhi to observe the first birth anniversary of the BJP-led government on March 19 was held at a time when the country was reeling under the worst crime wave that India had ever seen before. The last year, if anything, had proved that there was nothing that by any stretch of imagination could be called law and order.

According to home ministry sources the crime graph all over the country had gone up. During the last year at least 38,000 murders were committed, 60 per cent of which took place in Uttar Pradesh, Madhya Pradesh, Bihar and Andhra Pradesh. During the same period over 15,000 rapes were reported from different parts of the country. The metropolitan cities took the lead in murders, rapes, abductions, extortions and other crimes. The capital, New Delhi, led with the highest crime rate of 59,000 incidents during the last year. While his party was preparing for the birthday bash, union home minister L K Advani announced in the Rajya Sabha that the capital had far outstripped other metros in the number of heinous crimes – including rape, murder, robbery and abduction. Incidentally, for the most part of the last year, the capital was ruled by the BJP – till its defeat a few months ago. Even today, the capital's police administration is under home minister Advani. In most of the cases of murder and robbery, the police still remain clueless and are yet to apprehend the guilty. At least five journalists have been killed during the year and none of the cases has been solved so far.

In Mumbai, capital of another state ruled by the BJP with its ally Shiv Sena, the mafia has come overground and ruling the roost by indulging in smuggling, prostitution, extortions and contract killings. More than 10,000 people are reported to be finding sustenance from the four major mafia gangs that operate in the city.

What is significant in the latest crime reports is the increasing participation of first timers and youth from affluent families. The Delhi crime statistics indicate that 90 per cent of the robberies over the last year were committed by first timers, most of whom were below 30 years of age. One-third came from middle class background, and almost 40 per cent were school educated. Reports from other Indian cities suggest a similar composition of the new generation of criminals, with a significant part of them belonging to economically powerful and socially influential urban classes. Quite a large number of these criminals, particularly murderers, were found to be scooter-borne or driving trendy cars, possessing cell-phones, and were either connected with politicians, or came from upper class families. Some of the murders were committed because of

family disputes over the possession of properties.

These facts should lead us to question the hitherto glib assumption that the prime reasons for the increasing crimes in Indian metropolitan cities are poverty, over-population, migration of job-seekers, proliferation of slums, unemployment, etc. While economic needs do often drive the poor and the jobless to crimes like theft and robbery, a new breed of young well-to-do criminals is emerging whose activities are no longer confined to white-collar crimes (which their fathers indulged in to amass the fortunes on which these spoiled sons are thriving), but are extending to heinous crimes like murder of rivals from their own peer group, revenge killings, abduction and rape of women whom they fancy – or, hijacking a car and killing its driver just for a lark! It is significant that the scenes of such crimes are usually the college campuses, bars in five-star hotels, extravagant parties, or posh localities. Unlike the poor criminals, these pampered children of the rich are not taking to crime for money, but for other various reasons. Unlike the petty criminals again, they have full confidence in their ability to get away because of their clout in the higher echelons of the police and the administration. Demonstrative disregard of law with them becomes an aggressive statement of their status in society.

It is not surprising therefore that the BJP, under whose regime in the centre such disregard of law can surge unabated, would show a similar disregard for public sentiments by foisting a tawdry extravaganza in front of a historical monument to celebrate its one-year rule, and flout the objections raised by the local citizens, environmentalists and archaeologists.

BIHAR

Unrealistic Solutions

DESPITE having become the order of the day, the arbitrary mass killings in Bihar have not ceased to evoke horror and revulsion each time they are perpetrated. More innocents seem to be destined to be mowed down in the aftermath of the bout of violence that engulfed Shankarbhiga, Narayanpur and Senari, as threats of retaliation are issued by the landlord armies and the naxalite outfits from their respective hideouts. The state machinery having long abdicated its duty of maintaining law and order and the rudimentary task of providing public services, an overwhelming sense of futility pervades Bihar as it lurches into further anarchy. It is against this background that the multi-crore relief and reconstruction packages announced by the central and the state governments separately, instead of providing assurance, generate all round scepticism.

If history is anything to go by, the declared intentions as mentioned in the recent package, of modernising the police force, speeding up the clearance of long-pending legal cases involving land disputes, generating rural employment, providing electricity and drinking water, are reiteration of old objectives which never saw the light of the day. The attempt to boost the morale of the police by setting up additional checkposts, beefing up the police personnel and updating communications and transport facilities is likely to make little dent when it has been repeatedly revealed that massacres have taken place in spite of the police being forewarned, the police stations being well armed and staffed, and at a stone's throw from the site of massacre. In the recent case of beheading in Senari, 28 companies of the central reserve police force and Bihar military police were stationed in Jehanabad district. What such relief measures fail to take cognisance of is that in the absence of political will to root out lawlessness, no amount of infrastructural support will help resuscitate a paralysed police force. Given the numerous occasions the perpetrators of crime remain to be arrested or are arrested only to be released on bail subsequently, it does not come in the least bit as a surprise that the Ranveer Sena, despite being officially banned in July 1995, a year after its formation, has continued with its gruesome killings with greater frequency.

The present package claims novelty in awarding the authority of implementation to the bureaucracy rather than the politicians. Though this can be considered a reflection of the extent to which politicians of all shades in Bihar have lost the trust of the masses, the decision to empower the bureaucracy overlooks the deep nexus between bureaucrats, politicians and criminals that has corroded the government machinery. The various scams unearthed in Bihar have disclosed that the BDOs, district collectors and department secretaries by cornering government contracts have been involved in amassing wealth for themselves and their political masters. Moreover, in the absence of the panchayat elections since 1978, there is no popular control over utilisation of rural development funds. The road development activity on which the present package places so much stress in order to improve police reconnaissance, besides being a time-worn suggestion, has been embroiled in massive misappropriation of funds. The huge investment in road construction which the package proposes, if it ever comes through, is sure to meet the same disastrous fate previous schemes have suffered.

It has always been made out that the Bihar problem is not merely of law and order but is inextricably linked to skewed land ownership pattern that prevails in the state. Though there is a grain of truth in this argument, the ground reality in central Bihar where most of carnages are taking place, exhibits a different pattern. Though 80 per cent of land is owned by upper castes and upper backward castes in the central Bihar districts, unlike north Bihar, there are few large landowners in the region. Yet the agricultural prosperity of relatively irrigated central Bihar has bypassed the landless dalits who in the absence of industrial development, are condemned to eke out a living on the farms of upper and intermediate caste landowners. In fact, landlords owning 300-400 acres of land are to be found in north Bihar, but since they largely happen to be yadavs, Muslims and rajputs, Laloo Prasad Yadav, despite making noises against them at the beginning of his first tenure as chief minister, has protected their landed interests. But the industrial development in north Bihar districts has enabled the dalits to free themselves from the yoke of agrarian feudalism and thus pre-empted this region from witnessing gory carnages which have become a regular feature of central Bihar. Hence, the speedy settlement of land disputes as envisaged in the package has little to do with central Bihar where the lines of conflict run around totally different axes. It is not for no reason that Laloo Yadav has termed the recent spate of violence as one for 'maansamaan' (dignity), though it only happens to be a shrewd ploy to shirk his responsibility. The very fact that innocents are being targeted indicates that the mayhem in central Bihar is driven more and more by the logic of vengeance and has less to do with struggles for dignity, minimum wages or land distribution. It is another manifestation of chaos into which Bihar has descended and which, unlike the government package, offers no easy solution.

CURRENT STATISTICS

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Foodgrains production is expected to cross the 200 mn tonnes mark in 1998-99 due to a good rabi crop which is expected to touch a record 70.6 mn tonnes against 66 mn tonnes in 1997-98. Pulses-output is expected to touch a record 15.2 mn tonnes. Despite lower output, procurement from the 1998 wheat crop was higher and with further acceleration in procurement from the latest kharif and rabi crops, total stock of rice and wheat as on April 1 this year is expected to exceed the buffer requirement of 15.8 mn tonnes by 5 mn tonnes. Commercial crops like oilseeds, sugarcane and raw cotton are also expected to perform much better than in the previous year.

Macroeconomic Indicators

Index Numbers of Wholesale Prices (1981-82 = 100)	Weights	March 13, 1999	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
All Commodities	100.00	353.8	-0.1	5.1	4.9	5.0	5.1	5.3	6.9	5.0	10.4
Primary Articles	32.30	380.1	-0.7	9.4	4.4	9.3	5.4	5.5	7.0	5.4	12.7
Food Articles	17.39	438.9	-0.6	12.0	2.6	11.6	3.7	4.0	9.6	9.8	11.9
Non-Food Articles	10.08	384.0	-1.0	7.7	7.9	7.7	8.6	8.5	3.5	-1.9	15.5
Fuel, Power, Light and Lubricants	10.66	379.5	0.9	-1.2	11.8	-1.2	11.4	11.4	16.9	3.7	2.4
Manufactured Products	57 04	334.1	neg	3.9	3.7	3.7	3.7	4.0	4.9	5.0	10.7
Food Products	10.14	342.6	-0.1	5.8	4.4	5.2	4.8	5.5	14.1	-0.7	8.1
Food Index (computed)	27.53	403.4	-0.4	10.0	3.1	9.5	4.0	4.5	11.1	6.3	10.6
All Commodities (Average Basis) (April 4, 1998 - March 6, 1999)	100.00	352.3	-	6.9	4.9	7.0	4.8	4.8	6.4	7.8	10.9

Cost of Living Indices	Latest Month	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
Industrial Workers (1982=100)	420.0[1]	-2.1	9.4	9.7	10.5	9.4	8.3	10.0	8.9	9.7
Urban Non-Man Emp (1984-85=100)	342.0[1]	-0.9	9.3	7.9	9.6	7.6	7.2	10.2	8.2	9.9
Agri Lab (1986-87=100) (Link factor 5.89)	297.0[2]	-0.7	8.8	3.8	9.2	4.2	3.8	10.5	7.2	11.1

Money and Banking (Rs crore)	Feb 26, 1999	Variation: Over Month	Over Year	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96
Money Supply (M_3)	945506	8025(0.9)	149450(18.8)	120116(14.6)	94207(13.4)	123451(17.6)	97841(16.2)	72581(13.7)
Currency with Public	168019	2973(1.8)	23184(16.0)	22837(15.7)	12748(9.7)	13095(9.9)	13829(11.7)	17577(17.5)
Deposit with Banks	774261 @	4958(0.6)	125708(19.4)	97659(14.4)	81985(14.5)	110036(19.4)	84162(17.5)	55042(12.9)
Net Bank Credit to Govt	386820	4132(1.1)	65218(20.3)	56201(17.0)	32982(11.4)	42000(14.6)	30840(12.0)	35360(15.9)
Bank Credit to Comml Sector	465129	2686(0.6)	44523(10.6)	32939(7.6)	44298(11.8)	55883(14.9)	31659(9.2)	51925(17 7)
Net Foreign Exchange Assets	141342	1357(1.0)	22730(19.2)	14772(11.7)	13116(12.4)	21072(20.0)	23356(28.4)	3109(3.9)
Reserve Money (March 12)	251833	-508(0.2)	31322(14.2)	25599(11.3)	20525(10.3)	26248(13.1)	5527(2.8)	25176(14.9)
Net RBI Credit to Centre	153220	-2142(-1.4)	17549(12.9)	19603(14.7)	14968(12.4)	12915(10.7)	1934(1.6)	19855(20.1)
RBI Credit to Bks/Comm Sector	21197	-991(-4.5)	6668(45.9)	5915(38.7)	1277(9.6)	2029(15.3)	-15557(-54.0)	8747(43.6)
Scheduled Commercial Banks (March 12)								
Deposits	698338	6620(1.0)	115190(19.8)	92928(15.3)	77549(15.3)	99811(19.7)	71780(16.5)	46960(12.1)
Advances	354742	4992(1.4)	41763(13.3)	30663(9.5)	34579(12.4)	45677(16.4)	24386(9.6)	42455(20.1)
Non-Food Advances	338011	5374(1.6)	37366(12.4)	26417(8.5)	29840(11.0)	40790(15.1)	26580(10.9)	44938(22.5)
Investments (for SLR purposes)	251966	2298(0.9)	37955(17.7)	33261(15.2)	23498(12.3)	28192(14.8)	25731(15.6)	15529(10.4)
Commercial Investments	47448	571(1.2)	14349(43.4)	15536(48.7)	14616(79.1)	13673(70.4)	4412(29.4)	925(6.6)

@ Includes Rs 17,945 crore on account of proceeds from RIBs, excluding which the year-on-year growth of money supply would be 16.5 per cent.

Index Numbers of Industrial Production (1993-94=100)	Weights	December 1998	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Full Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
General Index	100.00	150.0	139.2(3.5)	134.5(6.7)	137.6(6.6)	129.0(5.5)	122.3(12.8)	108.4(8.4)
Mining and Quarrying	10.47	127.0	117.3(-1.1)	118.6(5.5)	122.4(5.9)	115.6(-2.0)	117.9(9.6)	107.6(7.6)
Manufacturing	79.36	154.0	142.6(3.7)	137.5(6.9)	140.5(6.7)	131.8(6.7)	123.5(13.8)	108.5(8.5)
Electricity	10.17	142.4	135.8(6.6)	127.4(6.0)	130.0(6.7)	121.9(3.9)	117.3(8.1)	108.5(8.5)

Capital Market	March 26, 1999	Month Ago	Year Ago	1998-99 So Far: Trough	1998-99 So Far: Peak	1997-98: Trough	1997-98: Peak	End of Fiscal Year: 1997-98	1996-97	1995-96
BSE Sensitive Index (1978-79=100)	3598(-7.6)	3234	3892(4.3)	2783	4281	3210	4548	3893(15.8)	3361(-0.2)	3367(3.3)
BSE-100 (1983-84=100)	1585(-6.5)	1435	1695(5.1)	1242	1890	1401	1980	1697(15.9)	1464(-5.5)	1549(-3.5)
BSE-200 (1989-90=100)	366(-2.8)	332	376(4.4)	289	429	314	440	377(14.9)	328(-5.0)	345(-6.3)
S and P CNX-50 (Nov 3, 1995=1000)	1041(-7.9)	941	1130(6.7)	812	1213	941	1140	1117(15.4)	968	na
Skindia GDR Index (Jan 2, 1995=1000)	638(-33.0)	578	952	515	1015	765	1320	940(1.1)	930(-4.4)	973(-0.6)

Foreign Trade	January 1999	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
Exports: Rs crore	12130	114045(10.1)	103597(7.4)	126286(6.3)	118817(11.7)	106353(28.6)	82674(18.5)
US $ mn	2854	27111(-3.7)	28158(3.4)	33980(2.6)	33470(5.3)	31797(20.8)	26330(18.4)
Imports: Rs crore	14263	146774(18.4)	1[illegible]3964(11.0)	151554(9.1)	138920(13.2)	122678(36.3)	89971(23.1)
US $ mn	3356	34892(3.6)	33694(6.9)	40779(5.8)	39132(6.7)	36678(28.0)	28654(22.9)
Non-POL US $ mn	2874	29991(10.5)	27137(14.7)	32562(11.9)	29096(-0.2)	29152(28.3)	22727(29.5)
Balance of Trade: Rs crore	-2133	-32729	-20367	-25268	-20102	-16325	-7297
US $ mn	-502	-7780	-5536	-6799	-5663	-4881	-2324

Foreign Exchange Reserves (excluding gold)	March 19, 1999	March 20, 1998	March 31, 1998	Variation Over: Month Ago	Year Ago	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95	1993-94
Rs crore	119819	98360	102511	2781	21459	17308	17985	22136	21649	-7302	18402	27430
US $ mn	28264	24858	25976	598	3406	2288	2489	3607	5243	-3690	5640	8724

Notes: (i) Superscript numeral denotes month to which figure relates, e g. superscript 1 stands for January; (ii) Figures in brackets are percentage variations over the specified or over the comparable period of the previous year. na: not available. neg: negligible * unchanged.

Agriculture

Rainfall (35 Meterological divisions)	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989
					June-September					
Excess/Normal	31	32	32	33	25	31	32	27	32	29
Deficient/scanty/nil	4	3	3	2	10	4	3	8	3	6
					Oct 1- Dec 23					
Excess/Normal	33	26	26	17	18	20	–	–	–	–
Deficient/scanty/nil	2	9	9	18	17	15	–	–	–	–

Production (Agricultural year)	1998-99 (Estimated)	1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92	1990-91	1989-90
Total Foodgrains (mn tonnes)	200.8	192.4	199.4	180.4	191.5	184.3	179.5	168.4	176.4	171.0
Kharif	102.4	101.1	103.9	95.1	101.1	100.4	101.5	91.6	99.4	101.0
Rabi	98.4	91.3	95.5	85.3	90.4	83.9	78.0	76.8	77.0	70.0
Total Rice (mn tonnes)	84.5	82.3	81.7	77.0	81.8	80.3	72.9	74.7	74.3	73.6
Kharif	–	71.6	71.3	67.9	72.6	70.7	65.3	66.4	66.3	65.9
Rabi	–	10.7	10.4	9.1	9.2	9.6	7.6	8.3	8.0	7.7
Total Wheat (mn tonnes)	70 6	65.9	69.4	62.1	65.8	59.8	57.2	55.7	55.1	49.8
Total Coarse grains (mn tonnes)	29.1	31.2	34.1	29.0	29.9	30.8	36.6	26.0	32.7	34.8
Total Pulses (mn tonnes)	15.2	13.1	14.2	12.3	14.0	13.3	12.8	12.0	14.3	12.8
Kharif	–	4.4	5 5	4.5	4.7	5.4	5.6	4.4	5.4	5.5
Rabi	–	8.7	8.7	7.7	9.4	7.9	7.2	7.6	8.9	7.3
Oilseeds (mn tonnes)	25.3	22.0	24 4	22.1	21.3	21.5	20.1	18.6	18.6	16.9
Sugarcane (mn tonnes)	282.7	276.3	277.6	281.1	275.5	229.7	228.0	254.0	241.1	225.6
Raw cotton (million bales of 170 kgs each)	14.0	11.1	14.2	12.9	11.9	10.7	11.4	9.7	9.8	11.4
Jute and mesta (million bales of 10 kgs each)	9.3	11.1	11.2	8.8	9.1	8.4	8.6	10.3	9.2	8.3
Tea (mn kgs) (calendar year)	812.3	810.6	780.0	753.9	743.8	758.0	703.9	742.0	720.0	684.0
Coffee (mn kgs)	230.0	228.0	205.0	223.0	180.0	208.0	169.0	180.0	170.0	118.0

Procurement of Foodgrains (mn tonnes)	Up to January 11									
	1998-99(P)	1997-98(P)	1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92	1990-91
Total (April-March)	–	–	23.6	20.4	22.2	25.0	27.2	18.9	18.2	23.9
Rice (October-September)	6.6	8.0	14.3	12.2	9.9	13.1	14.4	13.1	10.2	12.7
Wheat (April-March)	12.7	9.3	9.3	8.2	12.3	11.9	12.8	6.4	7.8	7.8

Offtake of Foodgrains (mn tonnes) (April-March)	April-November									
	1998-99	1997-98	1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92	1990-91
Total (incl coarse grains)	13.13	12.09	19.12	25.7	26.8	19.4	17.9	17.2	19.2	16.1
Rice	7.79	7.45	11.36	12.4	14.0	8.9	9.0	9.4	10.1	7.9
Wheat	5.34	4.64	7.76	13.3	12.8	10.6	8.9	7.7	9.1	8.2

Food Stocks with Govt Agencies (mn tonnes) (April-March) as at the end of the period	Dec 1, 1998	Dec 1, 1997	1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92	1990-91
Total (incl coarse grains)	25.0	18 7	18.1	16.4	20.8	26.8	20.5	14.7	12.2	17.3
Rice	11.2	11.4	13.1	13.2	13.1	18.1	13.5	11.0	9.8	11.2
Wheat	13.7	7.4	5.1	3.2	7.8	8.7	7.0	3.0	2.4	5.8

Industrial Production

Infrastructure industries	November 1998	Variation Over a Year Ago	Cumulative for Fiscal Year so far 1998-99	Cumulative for Fiscal Year so far 1997-98	1997-98	1996-97	1995-96	1994-95
Coal (mn tns)	24.9	-1.3(-4.8)	179.7(0.9)	178.1(5.0)	295.9(3.6)	285.7(5.8)	270.1(16.4)	253.7 (3.2)
Electricity generation (mn kwh)	35369	1742(5.2)	290452(6.1)	273632(6.1)	420405(6.6)	394488(3.9)	379684(8.2)	351025(8.5)
Hydel	5979	879(17.2)	57624(13.5)	50766(3.0)	74388(8.4)	68609(-5.0)	72223(-12.5)	82511(17.3)
Thermal(incl nuclear)	29390	863(3.0)	232828(4.5)	222866(6.8)	346017(6.2)	325879(6.0)	307461(14.5)	268514(6.1)
Plant load factor	62.6	-1.5(-2.3)	61.9	62.5	64.7	64.4	63.0	60.00
Crude petroleum (000 tns)	2633	-163(-5.8)	21666(-4.0)	22576(3.0)	33826(7.2)	31541(-8.7)	34563 (7.2)	32239(19.2)
Petroleum products (000 tns)	5769	443(8.3)	44411(3.0)	43105(4.0)	65131(3.7)	62814(7.2)	58578 (3.6)	56534 (3.9)
Finished steel (main plants) (000 tns)	1954.2	-53.6(-2.7)	15391.7(-2.0)	15700.6(-0.7)	14302(0.6)	14211(1.6)	13982 (8.9)	12839(8.3)
Cement (000 tns)	7050	220(3.2)	54530(2.8)	53030(8.1)	83160(9.2)	76176(9.9)	69309(11.2)	62355(7.6)
Fertilisers (000 tns)	1207.9	45.3(3.9)	8820.8(4.6)	8430(19.0)	13062(17.1)	11155(-1.6)	11335(8.6)	10438(15.4)
Revenue earning goods traffic on railways (mn tns)	34	-1(-3.8)	271(-2.2)	277(6.2)	429(5.0)	409(4.6)	391 (7.0)	365 (1.9)

Employment

Employment Exchange Statistics (000)	April-September									
	1998-99	1997-98	1997-98(P)	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92	1990-91
Number on live registers (End-period)	40201	39049	39187	37631	36825	36635	36039	36306	36552	34890
Number of registrations	3501	3579	5936	5943	5883	5931	5667	5100	6079	6404
Number of placements effected	102	125.32	261	252	219	212	216	229	259	253
Placements as percentage to registrations	2.9	3.5	4.4	4.2	3.7	3.6	3.8	4.5	4.3	4.0

Note: P: Provisional – not available Figures in bracket are percentage variations over the previous period.
Source: Central Statistical Organisation (CSO).

ITC

Streamlining for Growth

TOBACCO major ITC puffed off an encouraging performance during 1997-98. While the company's net sales was higher by 9.2 per cent over the previous year, 1996-97, operating profit improved by 25.9 per cent and the company's net profit jumped by 51.7 per cent over the same period. Encouraged by its performance, the company raised the dividend rate from 40 per cent last year to 45 per cent. While earnings per share was up to Rs 21.4 from Rs 14.1, book value moved up from Rs 52.5 per share to Rs 69 per share. At a time when other businesses seem to be struggling to retain their toe hold on the market, ITC seems to be going from strength to strength. After posting good results for the year 1996-97, the company has repeated its growth performance during 1997-98. The company maintained its leadership position in all the cigarette segments. In fact, in order to capture the foreign cigarettes segment – estimated at Rs 250 crore and growing at 25 per cent – ITC has tied up with its parent, BAT, for the manufacture and marketing of two international favourites – Benson & Hedges and State Express 555. The company has also embarked on an expansion and modernisation plan which is expected to further fuel growth. While its leaf tobacco exports registered a growth of over 62 per cent in value terms and 37 per cent in volume terms, its packaging and printing business also performed well and the company was able to consolidate its position as the industry leader. In a bid to disengage itself from non-profitable businesses which were a drag on profitability, the company hived off ITC Classic and sold off its stake in the seeds business, in addition to reducing its stake in the edible oils business. The company now plans to focus on four major areas – tobacco, hotels, printing and packaging, and paper.

The company has signed a memorandum of understanding (MoU) with Lawson Mardon Group of Alu-Suisse Lonza covering a security and back-up arrangement for printing and packaging of ITC's BAT brands. The company's printing and packaging division is today the country's largest manufacturer of value-added folded cartons, meeting the packaging needs of a variety of brand leaders in domestic and export markets covering industries like tobacco, liquor, tea, foods, detergents, personal products and matches. The company enjoys a good discounting at the stock market with its share quoting at Rs 990 on the bourses, which gives a price to earnings multiple of 46.2.

ESCORTS

Successful Restructuring

The flagship company of the Rs 3,000 crore Nanda group, Escorts, experienced a mixed performance during the year 1997-98. While the company net sales declined by 14.5 per cent over the previous year, operating profit remained stable at last year's level. Lower interest (down 16.2 per cent) and tax provision (down 16 per cent) helped the company post a marginally higher net profit during the same period. The company's poor performance is reflected in the poor discounting it is granted on the stock market with its stock quoting at a price to earnings multiple of three.

In a bid to revamp its image the company now plans to convert 50 per cent of its equity capital into cumulative redeemable preference (CRP) shares. The CRPs will have an interest rate of 12 per cent and have a face value of 90 per cent. They will be fully paid at par and have a tenure of seven years with an average of six years. The CRPs will be redeemable at par at the end of the fifth, sixth and seventh year from the date of allotment. Moreover, the company retains the option to redeem them at any time at the end of four years from the date of allotment under a call option. The CRPs will also be listed and tradeable. The move is expected to enhance the value of shareholders' holdings as also the cash flow to them by way of dividend and through return of capital on redemption of the CRPs. Excorts proposes to utilise reserves worth over Rs 280 crore to return equity to shareholders who have to date contributed Rs 154 crore in the form of equity and premium. Further, the company believes that the cut in equity will improve the price to earnings multiple which in turn maximises the wealth of the shareholders. The restructuring exercise carried out earlier was a move to realign its focus mainly because the company had diversified into too many areas which included agro machinery, construction equipment, telecom, automotive components, two-wheelers, chemicals and finance. In addition, the presence of another group company in tractors also sent out conflicting signals to investors. The restructuring move envisaged consolidation of the group's agro machinery business under Escorts. The company has divested the leather chemicals business and hived off its two-wheeler and automotive components division into separate joint ventures. The overall recession is expected to catch up with the domestic tractor industry soon. However, in a bid to tackle the slowdown and the threat from multinationals, Escorts is forging a series of overseas alliances for its tractor business. Apart from a technology tie-up with Carraro of Italy, the company has entered into a MoU with a US-based tractor distribution firm. Through this, Escorts is planning to market its higher HP tractors globally and offset the sluggishness in the domestic market.

ARVIND MILLS

Shifting Fortunes

The flagship company of the Lalbhai group, Arvind Mills performed poorly during 1997-98. Though the company's net sales was higher by 7.8 per cent over the previous year, 1996-97, operating profit suffered and was lower by 16.2 per cent. Even a sharp fall in interest charges (down 27.7 per cent) was not enough to offset the increase in depreciation (up 25.9 per cent) and tax provision (up 52.2 per cent), and the company's bottomline was lower by 20.7 per cent over the same period. With earnings per share falling from Rs 12.7 to Rs 10, the company decided to cut the dividend rate from 45 per cent in 1996-97 to 25 per cent during the year under review. Book value, though, coursed

(Rs lakh)

Financial Indicators	ITC March 1998	ITC March 1997	Escorts March 1998	Escorts March 1997	Arvind Mill March 1998	Arvind Mill March 1997
Income/appropriations						
1 Net sales	307485	281495	114440	138648	92801	86090
2 Value of production	316419	276968	116404	137292	96038	84613
3 Other Income	13444	12199	6721	7469	9686	11892
4 *Total income*	329863	289167	123125	144761	105724	96505
5 Raw materials/stores and spares consumed	123113	112212	75366	69467	50946	43711
6 Other manufacturing expenses	28242	24682	7538	33508	10804	7641
7 Remuneration to employees	20615	17331	13207	13972	4756	4136
8 Other expenses	57936	55522	10288	11089	13594	10450
9 *Operating profit*	99957	79420	16726	16725	25624	30567
10 Interest	14066	15859	4404	5255	7434	10287
11 *Gross profit*	87733	64968	19457	19732	18202	19059
12 Depreciation	8585	6303	3113	3008	7273	5777
13 *Profit before tax*	79148	58665	16344	16724	10929	13282
14 Tax provision	26528	23975	3360	4000	825	542
15 *Profit after tax*	52620	34690	12984	12724	10104	12740
16 Dividends	12148	107[illegible]	3298	3055	2812	4947
17 Retained profit	40472	23891	9686	9669	7292	7793
Liabilities/assets						
18 Paid-up capital	24541	24541	6807	6516	13905	10055
19 Reserves and surplus	151672	111383	81094	73152	105098	97815
20 Long-term loans	122168	43593	44695	39757	143672	93014
21 Short-term loans	7736	28986	13568	9889	12205	12277
22 Of which bank borrowings	7736	28983	13428	9889	12205	12277
23 Gross fixed assets	143863	127415	66470	67834	196158	120039
24 Accumulated depreciation	39086	31663	16952	16273	29532	22521
25 Inventories	91174	72975	12771	10827	22250	22936
26 Total assets/liabilities	433565	304770	190336	170782	293934	232331
Miscellaneous items						
27 Excise duty	375931	307809	13118	11372	31	225
28 Gross value added	118567	95457	41740	45399	22636	22590
29 Total foreign exchange income	116373	76305	2673	2397	35055	35805
30 Total foreign exchange outgo	36374	42326	1500	401	13940	11957
Key financial and performance ratios						
31 Turnover ratio (sales to total assets) (%)	70.92	92.36	60.13	81 18	31.57	37.05
32 Sales to total net assets (%)	100.45	135.01	78.30	107.22	33.76	40.39
33 Gross value added to gross fixed assets (%)	82 42	74.92	62.80	66.93	11.54	18.82
34 Return on investment (gross profit to total assets) (%)	20.24	21.32	10.22	11 55	6.19	8.20
35 Gross profit to sales (gross margin) (%)	28.53	23 08	17.00	14 23	19.61	22 14
36 Operating profit to sales (%)	32.51	28.21	14.62	12 06	27.61	35.51
37 Profit before tax to sales (%)	25.74	20.84	14 28	12 06	11.78	15 43
38 Tax provision to profit before tax (%)	33.52	40 87	20.56	23.92	7 55	4 08
39 Profit after tax to net worth (return on equity) (%)	29 86	25.52	14.77	15 97	8.49	11.81
40 Dividend (%)	45 00	40 00	45 00	45 00	25 00	45 00
41 Earning per share (Rs)	21 44	14.14	19 07	19.53	10 00	12.67
42 Book value per share (Rs)	69 02	52.53	104 41	92.89	114.52	107.28
43 P/E ratio	46.17	NA	3.13	NA	3.25	NA
44 Debt-equity ratio (adjusted for revaluation) (%)	72.13	33.82	62 88	65.69	120 73	86 23
45 Short-term bank borrowings to inventories (%)	8 48	39 72	105.14	91 34	54 85	53.53
46 Sundry creditors to sundry debtors (%)	858 45	264 55	74.66	160 72	50.44	95 21
47 Total remuneration to employees to value added (%)	17 39	18.16	31.64	30.78	21.01	18 31
48 Total remuneration to employees to value of production (%)	6 52	6.26	11.35	10.18	4.95	4 89
49 Gross fixed assets formation (%)	12.91	35.03	-2.01	-5 14	63.41	52.84
50 Growth in inventories (%)	24.94	-8.47	17 96	-16.31	-2.99	7.83

NA: means not available

along at Rs 114.5 per share, up from Rs 107.3 per share at the end of the previous year. The company's stock presently quotes at around Rs 32.5 on the bourses, discounting its 1997-98 earnings by a mere 3.25 times. During the year, denim sales accounted for 61 per cent of the turnover of the company while exports accounted for 44 per cent. The company's key business was hit badly in both the local and export markets due to the Asian crisis and slowdown in domestic demand. The shift in the consumer preferences, particularly in the US, from denim to chinos, gabardine and other casual fabrics is said to be responsible for the company's poor fortunes in the export market. Overcapacity in the Indian market and slack export markets affected the company's bulk fabric and branded garment sales, reportedly resulting in a pile-up of processed fabric estimated at Rs 125 crore. Reports even claimed that another Rs 15-18 crore worth of stock could be stuck with converters (intermediaries who manufacture and distribute the company's branded Ruf-n-Tuf jeans). Stocks of Newport jeans, worth about Rs 30 crore were also said to be lying with the company. The branded garment business contributed about 16 per cent of the turnover, and the company continued to derive considerable business from its treasury operations. The company implemented its 40 million metres per annum rope denim project at Santej in Ahmedabad during the year, and the other projects at the same location comprising expansion of the cotton shirting facility, a new knit fabric unit and captive plants were at advanced stages of completion. The total cost of the above projects is estimated to be around Rs 1,000 crore and most of it is being funded through debt.

Meanwhile, the promoters, Lalbhais, have increased their holding in Arvind Mills to 21.07 per cent by acquiring 2,11,89,758 equity shares of the total current equity capital of Rs 150 crore (increased after March 31, 1998). In another move, the company also planned to issue 50 lakh preference shares of Rs 100 each, aggregating Rs 50 crore to meet the working capital and capital expenditure needs. The company's move has been initiated in view of its expansion plans, and also for general corporate purposes. The authorised capital has reportedly been increased from Rs 150 crore to Rs 260 crore to incorporate the increase in capital.

Maharashtra Budget: More Questions Than Answers

Madhav Godbole

In the pursuit of populist policies the Maharashtra government has taken several hasty decisions which do not augur well for the financial health of the state.

THE annual financial statement of the government of Maharashtra for the year 1999-2000 was presented in the state legislature on March 22, 1999. The budget was anxiously awaited for a number of reasons. The first is the critical financial position of the state government which is causing concern among the discerning citizens, thinkers and public policy analysts, though the state government has so far been totally oblivious to it. It was expected that the coalition government would at last take note of these serious concerns in the budget and present a set of time-bound remedial actions. Second, this is the last budget of the Shiv Sena (SS)-Bharatiya Janata Party (BJP) coalition government as the elections to the state legislative assembly are scheduled to be held in February 2000. The budget was, therefore, expected to give a decisive direction to the state's development efforts so as to ask for a fresh mandate from the people. Third, this is the first budget after the setting up of the Eleventh Finance Commission (EFC). It was expected that the state government would show a seriousness of purpose in setting its financial house in order to make out a strong case for larger assistance from the EFC. Unfortunately, the budget has belied all expectations and has raised more questions than what it has answered.

It will be useful to begin the discussion by briefly summarising the main features of the budget. The budget estimates for 1999-2000 anticipate an all-time high deficit of Rs 1,095.31 crore, with unprecedented revenue deficit of Rs 7,971.93crore, capital account surplus of Rs 1,708.43 crore, and public account surplus (net) of Rs 5,676.74 crore. The deficit is proposed to be made good by resource mobilisation proposals (Rs 720 crore) and gearing up of the tax collection machinery and tightening up various economy measures, especially on the non-Plan revenue account side (Rs 300 crore), resulting in the reduction of the deficit to Rs 75.31 crore

The analysis of the financial position of the government brings into sharp focus a number of disturbing features. Revenue deficit has recorded a steep increase during the last few years. The deficit has gone up from Rs 609.11 crore in 1995-96 to Rs 1,590.56 crore in 1996-97, Rs 2,579.94 crore in 1997-98, Rs 2,741.64 crore in 1998-99 and Rs 7,971 crore (BE) in 1999-2000. Interest payments have increased from Rs 2,903.59 crore in 1997-98 to Rs 3,607.60 crore in 1998-99 and are estimated to go up to Rs 5,082.34 crore in 1999-2000. Revenue expenditure is slated to go up steeply from Rs 22,896.51 crore in 1997-98 to Rs 24,872.36 crore in 1998-99 and Rs 32,209.08 crore in 1999-2000 (increase of 29.5 per cent over the previous year). The annual growth rate in total expenditure on revenue account was 16.4 per cent between 1980-81 to 1990-91. Between 1990-91 and 1999-2000, the corresponding growth rate is estimated to be 15.6 per cent. Both these rates are much higher than the rates of growth of revenue in the corresponding periods. Interestingly, during the period 1990-91 to 1999-2000, the annual growth rate of expenditure on (i) agriculture and allied activities is 6.1 per cent, (ii) administrative services is 23.9 per cent, (iii) education, sports, arts and culture is 15.3 per cent, (iv) health and family welfare is 12.6 per cent, and (v) debt services is 17.7 per cent. Thus the highest growth rate is of expenditure on administrative services, followed by that on debt services. The per capita expenditure on revenue account was Rs 2,555.06 in 1997-98. It is expected to increase to Rs 2,724.89 in 1998-99, i e, by 6.6 per cent over 1997-98 and further to Rs 3,464.85 in 1999-2000, i e, by 27.2 per cent over 1998-99.

The capital expenditure is languishing at Rs 4,355.70 crore, Rs 4,448.57 crore and Rs 4,009.34 crore, respectively in these years – a projected decline, even in nominal terms, in 1999-2000. The per capita expenditure on capital account is likely to increase from Rs 358.41 in 1997-98 to Rs 397.45 in 1998-99. The same is, however, expected to decrease to Rs 351.53 in 1999-2000.

There was a big jump in anticipated Pla expenditure in 1998-99 (Rs 11,638.8 crore) as compared to the preceding yea 1997-98 (Rs 7,936.70 crore). This wa due to large recourse to loan funding c the Plan resorted to by the state govern ment. However, the outlay for the annua Plan for 1999-2000 is of only Rs 12,161.6 crore as against the outlay of Rs 11,60 crore for the previous year. Thus the outla for the year 1999-2000 is just 4.8 per cen higher than the outlay for the previou year (this percentage is even lower i terms of the anticipated actual expendi ture), signifying a decline in real terms Of the total outlay, only Rs 6,641.82 cror (54.61 per cent) forms part of the stat budget. It is necessary to note that thi amount also includes loan funds receive towards externally assisted projects, an central sector and centrally sponsore schemes. The balance amount o Rs 5,519.84 crore is to be met from th resources of the statutory bodies like th Maharashtra State Electricity Boar (MSEB), Maharashtra State Road Trans port Corporation (MSRTC), loans fron the Life Insurance Corporation of Indi for the water supply schemes, irrigatio development corporations, road develop ment corporation, Maharashtra Jeeva Pradhikaran and Mumbai Metropolita Region Development Authority. Most o this amount will be raised by way of loans Thus less than 40 per cent of the tota annual Plan outlay is non-loan funded indicating the severity of the problem o debt creation. Fiscal deficit went up b nearly 23 per cent in 1998-99 (Rs 8,071.7 crore) as compared with 1997-9 (Rs 6,561.68 crore), and is estimated to g up by further 17 per cent in 1999-200 (Rs 9,436.01 crore). Primary deficit to is slated to touch Rs 4,353.67 cror (1999-2000) as compared with Rs 3,658.0 crore in 1997-98. It is further seen that th ratio of revenue deficit to fiscal deficit indicating the extent of borrowing use for consumption expenditure, is estimate to go up from 39.32 per cent in 1997-9 and 33.96 per cent in 1998-99 to un believable 84.48 per cent in 1999-2000

The total debt of the state governmen which was Rs 21,751 crore at the end o 1996-97 increased to Rs 25,870 crore a the end of 1997-98 and the same is esti mated at Rs 30,912 crore by the end o 1998-99. It is expected to increase furthe to Rs 37,226 crore by the end of 1999-2000

Yet another disturbing aspect of th state's finances is regarding the proporatio of the total revenue of the state pre-empte by three sticky items of expenditure

namely, gross interest payments, total salary liability and subsidies. These together accounted for 77.82 per cent of the total revenue receipts in 1994-95. This percentage has gone up rapidly in the following years – 78.82 per cent in 1995-96, 84.13 per cent in 1996-97, and 85.29 per cent in 1997-98. In 1998-99, it is estimated to have crossed 100 per cent.

Due to some significant developments in recent years, the budget of the state government does not reflect the full and correct picture of the finances of the state. At least three factors may be cited in support of this contention. First, in the past, the state alone used to borrow from the market on the basis of its guarantee. In recent years, a number of state government corporations are taking resort to borrowing from the market on the basis of state government guarantees. Thus huge sums are being borrowed by the irrigation development corporations, state road corporation, MSEB and so on. Most of these projects are clearly not self-financing and the final liability to repay the loans, either in full or part, will devolve on the state government. This contingent liability arising from the borrowing of the state government entities is not reflected in the budget. Second, much worse is the borrowing, based on the guarantees of the state government, by non-government entities such as the co-operative sugar factories, co-operative spinning mills, co-operative cotton marketing federation for the loss-making cotton monopoly scheme and so on. The co-operative sugar factories and spinning mills have already defaulted in repayment of loans and payment of interest to all-India financial institutions to the extent of over Rs 300 crore. The state government has been dragging its feet in meeting its guarantee obligations. As a result, these institutions have stopped extending term loans to new co-operative sugar factories in the state since 1995. In spite of accumulated losses of over Rs 1,300 crore, the cotton monopoly scheme has been kept going by the state government by ordering its other corporations to park their surplus funds with the cotton marketing federation and extending loans to the federation from state exchequer which are not likely to be repaid at any time. The seriousness and enormity of this large contingent liability has to be reckoned with in appraising the budget. Third, the state government has given guarantees for the purchase of power by MSEB from the three independent power producers (IPPs), namely, Enron, Reliance and Nippon Dendro. By all accounts, the state will have to bail out the MSEB in fulfilling its power purchase obligations. The concerns regarding this large contingent liability in the coming years are also not reflected in the budget. If these imponderables are taken into account, the finances of the state government are clearly in a crisis situation.

It is indeed unfortunate that the finance minister has been laying the entire blame for the deterioration in the financial position of the state government on the unilateral decisions of the central government on the recommendations of the Fifth Pay Commission. While the profligacy on this account cannot be lost sight of, the budget does not seem to take any cognisance of the veritable time bomb which is ticking away inexorably.

Poor Resource Mobilisation

It will be useful to examine in this context the performance of the state in respect of resource mobilisation. All available data show that the efforts of the state government in this regard are much less than are warranted in the above situation. Maharashtra occupied the first place among 14 major states in respect of per capita tax revenue in 1996-97 and 1997-98. However, this primacy was lost in 1998-99 (BE) when the state slipped to the fourth position. Significantly, on the basis of the ratio of tax revenue to state domestic product (SDP), which shows the potential of the state to raise revenue, in 1996-97 (latest year for which comparable SDP data are available), Maharashtra ranked only fifth among 14 major states. Even after taking into account the revenue from octroi, which is levied by municipal bodies, this picture may not change to any appreciable extent.

The performance is equally disappointing in respect of all major taxes. As regards the per capita sales tax revenue, Maharashtra occupied the fourth position among 14 major states in all the three years, namely, 1996-97 1997-98 and 1998-99 (BE). In respect of sales tax revenue to SDP ratio for 1996-97, Maharashtra was only at the sixth position. In respect of per capita state excise revenue, Maharashtra was at the sixth position in 1996-97, third in 1997-98 and seventh in 1998-99 (BE). On the basis of the state excise revenue to SDP ratio for 1996-97, Maharashtra was only at the eighth position among 14 major states. In respect of the per capita revenue from the taxes on vehicles, goods and passengers, Maharashtra was at the fifth position in 1996-97, third in 1997-98 and eighth in 1998-99 (BE). As regards this tax revenue to SDP ratio for 1996-97, Maharashtra trailed at the 10th position among 14 major states.

Of the total receipts on revenue account, non-tax revenue accounted for only 20.5 per cent. Of this, excluding interest receipts (4.8 per cent) and grants-in-aid from central government (7.9 per cent), "other non-tax revenue" accounted for only 7.8 per cent. Interestingly, the revenue from this source is estimated to be smaller in 1999-2000 than even in 1997-98 and just marginally higher than in 1998-99.

The performance of the state public sector enterprises has been most disappointing. According to the report of the Comptroller and Auditor General of India on the state government for the year ending March 31, 1997, the state government's investment in the share capital and debentures of various statutory corporations, government companies, etc, at the end of 1996-97, was Rs 1,874.18 crore. The dividend/interest received during the year was Rs 9.27 crore only, representing a meagre return of 0.49 per cent. Thirty-five companies, in which the government investment in equity was Rs 187.19 crore, had accumulated losses of Rs 343.41 crore during the years 1986-87 to 1996-97 for which the accounts were finalised.

The budget does not deal with any of these issues insofar as revenue mobilisation is concerned. On the contrary, the state government has taken the most retrograde step by proposing the abolition of value added tax (VAT) system. The relevant portion of the speech of the finance minister is cleverly worded to give an impression that the committee appointed by the state government under the chairmanship of Narayan Valluri had recommended this course of action. The relevant paragraph of the budget speech reads as follows: "The committee has *taken a note of* (emphasis added) the following problems faced by tax payers – (i) VAT has imposed an onerous burden on tax payers in terms of accounts keeping, which small dealers find difficult to comply with. (ii) The multiplicity of rates combined with VAT has complicated filing of returns for resellers. (iii) The experience of Tamil Nadu and Kerala government which introduced VAT shows that they were not happy with it and have either abandoned or kept it in abeyance. (iv) VAT system is not suitable for Maharashtra."

At the outset it needs to be noted that there is nothing special about Maharashtra, as compared with the manufacturing and trading activities the world over, and VAT ought to have been given a fair trial in a so-called progressive state such as Maharashtra. In fact, implementation of VAT was considered a feather in the cap of the Maharashtra sales tax administration by knowledgeable observers and institutions both in the country and abroad. Any new taxation system is bound to face

teething troubles. Some decline in the rate of growth of revenue, in the short run, also cannot be ruled out; but the Maharashtra administration has the requisite innovativeness to deal with these issues in a constructive manner. Instead of doing so, the state government has, for inexplicable reasons, taken the hasty and short-sighted step of abolishing the VAT system altogether. This will have long-term adverse implications for the rationalisation and reorganisation of the commodity taxation not only in Maharashtra but in several other states in the country.

What is shocking is that the committee under the chairmanship of Narayan Valluri had not recommended the abolition of VAT at all. It had recommended an alternative, for adoption in the short term, which would reconcile the conflicting demands put forth by various interested parties and suggested the continuation of the levy of tax as at present, at the first point of sale, at the existing rates (or as modified and revised in the light of the committee's report or otherwise). However, subsequent sales (which were to be subject to VAT) were not to be taxed at the rates applicable to the individual commodities but at a single rate of tax levied on the basis of the subtraction method, i e, on gross value of sales less cost of purchases (including freight, octroi, etc). And the threshold limit for registration of dealers was to be brought down from the current Rs 40 lakh to zero. The committee had specifically underlined that this course of action will have the advantage because: (a) it is not a reversal of the track to the earlier system of first stage single point tax; (b) it addresses the concerns flowing from the opposition to VAT; and (c) it does not try to adopt a full-fledged VAT system before one is fully equipped or ready to do so. At the same time, initiatives can be kept alive to move towards a full-fledged VAT as recommended by the Committee of Finance Ministers. The state government should have published the report of the committee for a wider debate before announcing its decision on the subject. It is unfortunate that the VAT system in Maharashtra has fallen a prey to the single point programme of the state government to pursue populist policies, even by sacrificing the long-term interest of the state.

Equally disconcerting is the hasty manner in which the decision to abolish octroi in 'A', 'B' and 'C' class municipal councils has been announced in the budget. The finance minister has quoted a long list of the reports of the committees which had recommended the abolition of octroi. But, he has, inexplicably, failed to refer to the most important committee (P D Kasbekar Committee) on this subject, from the perspective of Maharashtra. This committee, of which this writer was a member, in its report submitted in October 1987, had, *inter alia*, recommended that octroi should be abolished and in its place an account-based entry tax should be levied. The committee was particularly anxious that the state government should not undertake to meet the loss of revenue of local bodies, due to the abolition of octroi, from its own limited financial resources which were already under considerable stress. The committee had further emphasised that a separate earmarked fund should be created to ensure timely reimbursement of losses of the local bodies from the revenues of the entry tax to be levied by the state government. These well-considered recommendations have been overlooked by the state government. Instead, the finance minister has announced that octroi in the above categories of urban local bodies will be abolished and the state government will reimburse the loss to these bodies from its own resources for the next four years. Apparently, it is presumed by the finance minister that thereafter these bodies will be able to stand on their feet without state government support.

The experience of other states such as Karnataka in this regard should have made the state government wiser. The local bodies in these states were at the mercy of the state government and did not even have funds to pay the salaries of their employees. The development works in the urban areas in these states suffered a great deal. As brought out earlier, the record of Maharashtra in terms of mobilisation of revenues has been poor. In this situation, to give up an important source of revenue such as octroi, without taking recourse to any alternative revenue raising measure, is foolhardy. A number of other very valid objections can be raised regarding the decision of the government to abolish the octroi by taking recourse to populist stance as the traders in Maharashtra had stoutly opposed levy of entry tax. All along, they wanted the octroi to be abolished without levy of any other tax, and were thereby asking for reduction in the tax burden. In view of the forthcoming elections in the state, the ruling coalition has sacrificed the interests of urban local bodies as also the state by conceding this demand of the trading community which had been consistently rejected by the state government for the last two decades. It is interesting that all this is being done when the state government is on the verge of financial bankruptcy.

A reference may be invited in this context to the recommendations of the first report of the state finance commission. This commission was appointed in the light of the 73rd and 74th amendments of the Constitution. The commission submitted its report to the state government on January 31, 1997. The state government took an unconscionably long time of nearly two and quarter years to examine the recommendations and finally placed the report of the commission along with the action taken report on the table of the legislature in March 1999. The report of the commission makes very disappointing reading. It is unfortunate that most of the members appointed on the commission had an inadequate understanding of the issues nor did they have a clear vision or perspective for the future. The state government's action taken report is equally perfunctory. It is indeed a sad commentary that in the most urbanised state in the country and in the state which had taken pioneering steps as early as 1962 to usher in the panchayat raj, the subject has received such cavalier treatment at the hands of both the State Finance Commission and the state government. It was surprising that the finance minister did not have even a word to say on the subject in his hour-long budget speech. As compared to the total estimated revenue receipts of the state government, to the tune of Rs 24,237.15 crore, for the year 1999-2000, the budget makes an ad hoc provision for only Rs 298.48 crore for assistance to local bodies in pursuance of the recommendations of the State Finance Commission. This is eloquent testimony of the state government's commitment to the cause of democratic decentralisation.

The finance minister has once again taken recourse to increasing the tax on petrol by 44 paise per litre and on diesel by 63 paise per litre. With this latest increase, the prices of these products in Maharashtra are perhaps the highest in the country. Apart from giving impetus to inflationary pressures, such repeated increases in the prices of petrol and diesel raise an important question. The centre has announced its decision to bring the domestic prices of petro products in line with international prices. However, whenever the prices of some of these products are reduced by the centre in keeping with decline in international prices, the states quickly step in and increase taxes on such products, whether it is diesel or aviation turbine fuel. It is time this issue is thrashed out between the states and the centre so that a long-term sustainable policy in the matter can be evolved.

Profession tax was once considered to be an important avenue for the mobilisation of revenue in the state. Unfortunately, over the years, this enthusiasm was waned.

This is partly due to the fact that the revenue from this source is earmarked in entirety for the Employment Guarantee Scheme (EGS). The requirement of funds for EGS has come down over the years, partly due to larger funds becoming available under the employment generation schemes funded by the centre. There are repeated demands in the legislature and elsewhere that the outlay for EGS be increased or the rates of profession tax be reduced. Public interest litigation has also been filed in the Mumbai High Court in this matter. Instead of reviewing the original decision to earmark all revenues from profession tax for the EGS, the state government, under pressure from various lobbies, has been dragging its feet in tapping this avenue fully.

In the budget for 1999-2000, the finance minister has announced certain concessions in profession tax to Hindu undivided family (HUF) and partnership firms on the ground of double taxation. The basis for giving these exemptions is hardly convincing and can be faulted as the constituents of HUF and partnership firms and these legal entities have to be distinguished from each other and treated independently for the purpose of levy of profession tax. The finance minister has announced his intention to fix the liability under the profession tax on the basis of income tax liability. The legal tenability of this initiative is clearly doubtful and needs to be gone into, if the entire revenue from profession tax is not to be jeopardised.

It is amazing that every state finance minister succumbs to the temptation to reduce the sales tax on gold and silver on the specious plea that trade in these commodities will otherwise go out of the state. This time the finance minister has gone a step further and has proposed reduction in the sales tax not only on gold and silver but also on the plastic jewellery boxes. In the name of the poor and the downtrodden, time and again, the budgets seem to serve the interests of well-off sections of society with impunity. This was again borne out by the above decision of the state government taken in following its earlier decision to give sales tax exemption for the Tata's Indica car and large concessions in floor space index to five-star hotels in Mumbai at highly concessional rates.

Populist Programmes

As in the past, the budget contained a number of populist schemes and programmes. The finance minister announced the introduction of Annapurna scheme under which each family below the poverty line will be entitled to 10 kg of wheat or rice at Rs 2 per kg. This is over and above the present scheme under which the state government has undertaken to supply, through public distribution system, five essential commodities at 1994 prices. The decision of the centre in 1998 to increase the issue prices for these commodities has further increased the total financial burden on the state government to Rs 500 crore. Under the new Jijamata Mahila Adhar Yojana, in the case of accidental demise of the head of the family having annual income up to Rs 1 lakh, the widow or son/daughter will be entitled to a lump sum assistance of Rs 25,000 from the government. Under this scheme, 1.6 crore families will be insured and the insurance premium will be paid by the state government. A new Baliraja Suraksha Vima Yojana announced by the finance minister is meant to give financial assistance ranging from Rs 5,000 to Rs 10,000 to those affected by natural calamities.

Some of the give-aways are unfocused and do not have any specific deserving target group. Thus, under the Dr Punjabrao Deshmukh interest subsidy scheme, those farmers who take short-term loans up to Rs 25,000 and repay the same in time, will be given an interest subsidy of 4 per cent by the state government. It is expected that about 20 lakh agriculturists will be benefited by the scheme. As can be seen, the scheme is not confined to small or marginal farmers and covers all farmers, irrespective of the size of their landholdings.

By yet another populist decision announced by the state government just a few days before the budget, the electricity tariff for agricultural consumers has been reduced substantially. The chief minister has announced that this is the first phase and in the second, electricity will be provided entirely free to agricultural consumers. This first phase itself is estimated to lead to the loss of revenue of Rs 181 crore for the MSEB. These announcements are over and above the large subsidies of over Rs 4,800 crore given the state government annually from its budget. In addition are the subsidies amounting to nearly Rs 4,500 crore given to the state public sector undertakings such as MSEB and MSRTC. The finance minister did not refer in his speech to any proposal for review and reduction in the burden of these large subsidies in any manner. The central ministry of power has announced a number of incentives to goad the state governments to set up state electricity regulatory commissions (SERCs). These include reduction in rates of interest on loans from the Power Finance Corporation and the Rural Electrification Corporation. In view of the several critical issues facing the power sector in the state, in general, and MSEB, in particular, it was expected that the state government would make an announcement in the budget regarding setting up of SERC. This expectation too has been belied.

In view of the unsustainable burden of the decisions pertaining to the Fifth Pay Commission, one would have expected some curbs to be announced on new recruitment in the government. Instead the finance minister announced a few days ago that over 1,800 posts falling vacant as a result of the reduction in the age of retirement from 60 years to 58 years would be filled up expeditiously.

The finance minister has announced the setting up of a committee under the chairmanship of chief secretary of the state to examine the question of economising on administrative expenditure. The committee has been asked to submit its report within two months. This kind of tinkering with the problem, as a token gesture, will serve hardly any purpose. What is required is to take a close and critical look at down-sizing the government in its entirety within a definite timeframe. This task can hardly be addressed adequately by a committee of officers.

The chief minister has announced that several new districts would be created, by bifurcating the existing districts, from May 1, 1999. This will lead to a huge expenditure of over Rs 100 crore. The announcement of increase in support price for purchase of cotton under the Cotton Monopoly Procurement Scheme is also in the offing, though the scheme is running into large losses. With all these portents it is not clear how the finance minister is going to bring about large saving in non-Plan expenditure.

A reference may be made to the usual ploy, adopted by all state governments, of applying an across-the-board cut to expenditure during the course of the year in a mindless manner. This often takes the toll of maintenance expenditure. In 1998-99, the budgetary provision for such expenditure in Maharashtra was only about Rs 1,115 crore, with public works department accounting for over Rs 900 crore of the outlay. This was grossly inadequate as compared to the norms laid down by the Finance Commission from time to time. Neglect of capital assets in this manner reduces their life considerably. It is sad to see that not only the capital expenditure has been going down rapidly but even the existing capital assets are not being cared for adequately. The other victim of across-the-board cuts in expenditure is the non-plan development expenditure. Thus there are hospitals but no drugs, there are schools but no teaching aids, and expensive machinery and equip-

ment lying unrepaired and therefore unused. All this can be avoided only by looking at all expenditure critically. In this context, it is unfortunate that the state budget has not taken note of the announcement of the union finance minister to introduce zero base budgeting in the central government from 1999-2000. The state government could have resolved to revert to this system of budgeting which was given up during the regime of Sharad Pawar as chief minister in 1989.

The question of regional imbalance has been in the forefront for over a decade now. The state government had promised to remove the backlog of development, amounting to about Rs 3,500 crore, identified by the fact finding committee under the chairmanship of V M Dandekar in the early 1980s, as soon as possible. Though over a decade has gone by since the announcement was made, the backlog still persists. According to newsreports, a recent committee appointed by the governor, who has been given special powers for balanced regional development under Article 371(2) of the Constitution, has identified a further backlog of over Rs 15,000 crore. The report of the committee submitted in 1998 is yet to be made public. Government decisions thereon are also yet to be announced. But, against this background, it is disappointing to see that the provision made for the removal of backlog in 1999-2000 remains at the same level (Rs 1,100 crore) as in the previous year.

The finance minister has announced that "to maintain fiscal discipline as recommended by the 10th Finance Commission, government has decided to establish consolidated sinking fund from the year 1999-2000". However, this is begging the question. There is no indication how the requisite financial provision for the purpose will be found from year to year. There is no indication of the amount which will be deposited in the fund in 1999-2000. Unless all the details are made public, it is not possible to arrive at any considered judgment on the matter.

There are two other areas requiring urgent attention on the part of the state government. These pertain to the state government laying down a statutory ceiling on its borrowing and the state government guarantees to be given, at any one time, for the borrowing or fulfilment of any other obligations by other entities. These are long overdue reforms and will require firm political will to translate them into reality. Against the above background, Maharashtra budget for 1999-2000 will have to be described as a non-starter. In its quest for short-term, populist solutions, it has failed to address the serious issues facing the state.

Redefining Small Industry: Some Issues

J C Sandesara

The decision to redifine small industry by lowering the ceiling on investment will adversely affect a large number of industries.

ON February 17, 1999 the government of India announced its decision to lower the investment ceiling in small industry to Rs 1 crore from the previous 1997 ceiling of Rs 3 crore (ancillary industry being included in both years). The 1999 ceiling is thus lower by 67 per cent. Investment is defined in terms of investment in plant and machinery (original value). During this period, prices of plant and machinery have increased by 3 per cent, so that in real terms the ceiling stands still lower by 70 per cent.[1] It is of interest to compare this 1999 ceiling with the one announced earlier that year. In 1991, small and ancillary industries had different ceilings of Rs 60 lakh and Rs 75 lakh, respectively. Relative to the ceiling of Rs 1 crore for both in 1999, the increase is of 67 per cent for the former and 33 per cent for the latter. These are monetary increases. During the same period, prices of plant and machinery have risen by 69 per cent, so that in real terms, the 1999 ceiling becomes lower than even the 1991 ceilings in both small and ancillary industries. The fall is marginal in the former, but it is substantial in the latter where the ceiling stands lowered in 1999 to two-thirds of its 1991 level. To put it differently, the monetary ceiling of Rs 1 crore of 1999 for small industry is roughly equal, in real terms, to the 1991 ceiling, while the monetary ceiling of Rs 1 crore of 1999 for ancillary industry needs to be raised to Rs 1.30 crore, in real terms, to the 1991 ceiling. Further, considering that prices of plant and machinery will continue to increase, whereas the ceilings fixed in monetary terms remain that way for quite some time, they need to be fixed higher.

The 1999 lowering of the ceiling is clearly a rollback of economic reforms to push which government has declared its intent repeatedly. Thus for example, *The Economic Survey*, 1998-99 has noted: "Investment controls are the second most pernicious legacy of the control era...The need to replace all quantitative restrictions was recognised even in the 1980s" (p 19, para 80, the first most pernicious controls being identified as price and distribution controls). Still more recently, in his 1999-2000 budget speech, the finance minister declared that to "Deepen and widen economic reforms in all major sectors and accelerate internal liberalisation to release the productive energies of our farmers, manufacturers, traders and service producers" was part of the sixfold strategy followed in framing the budget proposals (para 8).

The decision to lower the ceiling was announced on February 17, 1999. The *Economic Survey* and the Budget presented to the parliament later in the last week of February do not mention this change. Is this just a slip? Did the authors of these documents not know of this change? If they knew it, was it too late to incorporate it in their documents? Is the government reconsidering its decision, and thinking of restoring the ceiling to the 1997 level? In the absence of clarifications from the government, the answers to these questions will remain in the realm of speculations.

The government has not thought through the various implications at the practical level of its decision to lower the ceiling, thus imposing perhaps unintended consequences on all concerned. This decision has the effect of reducing the number of potential beneficiaries of the various small industry promotion schemes of the government. Consider, for example, the three major policy areas. First, lending to units with investment between Rs 1-3 crore will not be classified as priority sector lending by banks/government. Second, the latest budget has announced a number of schemes and concessions in the areas of credit and taxation. Such units will not be eligible for benefits. Third, although of late government has de-reserved a number of items in the reserved category, the number there is still very large, over 800. Such units cannot produce the reserved items. It is hoped that the lower ceiling is not applied retrospectively, so that the units with investment between Rs 1-3 crore established before this ceiling becomes operational, retain their status as small industry, and continue to remain eligible for assistance and benefits available to this sector.

Note

1 The numbers on plant and machinery have been approximated in the following way. For 1991, 1997 and 1999 ceilings, we have used the index numbers of wholesale prices of machinery and machine tools (base year 1981-82) for the years 1990-91, 1996-97 (average of weeks) and 1998-99 (average of April-December) as proxies for prices of plant and machinery. These numbers are, in that order, 180, 295 and 305, thus giving increases of 69 per cent between 1990-91 and 1998-99 and 3 per cent between 1996-97 and 1998-99).

Manipulative Politics Continues

Suhas Palshikar

Though the present ruling alliance of the SS-BJP has not endeared itself to the electorate, sections of the traditional maratha following of the Congress which are not prepared to accommodate the dalits or the OBCs, have become vulnerable to the appeals from the Shiv Sena and the BJP. In such a scenario, the task before the Congress leadership would be to disintegrate the mythical maratha vote and to seek to build new alliance of the poor maratha with other non-maratha castes including the dalits. This will virtually mean writing a fresh text in the politics of the state.

EVER since the Sena-BJP alliance stormed the long time Congress bastion in Maharashtra in 1995, political situation in the state has been in a constant flux. The Sena-BJP victory was a combination of many factors. Apart from unprecedented intra-party revolts in the Congress, this victory was also shaped by the decisive votes of the urban voter against the Congress. The split in the maratha vote also contributed to the electoral defeat of the Congress.[1] Because the victory of the alliance was not based on any positive choice by the electorate, the life of the alliance government in the last four years has always been full of uncertainties and controversies. The recent removal of Manohar Joshi from chief ministership of the state has added further twist to the curious ongoings in Maharashtra. In a swift and decisive move, Bal Thackeray has removed Manohar Joshi and brought in Narayan Rane as the new chief minister of the Sena-BJP alliance. With elections to state assembly barely a year away, this move is apparently intended to attract the rural maratha votes in the next elections. Will this result into a reconfiguration of political forces in the state?

Dilemma Before Maratha Elite

The election in 1995 ushered in a process of realignment of political forces in the state in more than one sense. At the level of the electorate, the maratha vote sizably moved away from the Congress. But after the elections, the maratha elites got a rough deal from the alliance. Resources were poured more in favour of the urban interests, thus further marginalising the maratha leadership. In this backdrop, the move to bring in a maratha chief minister who does not have a following among the maratha community in the state is going to be only a cosmetic change. Whether the maratha voters will fall for such a sop is another matter. Ther real issue is what will be the position of the maratha elites? In the last four years, the maratha elite has been living a life of dual reality. On the one hand, they have lost state power and are begging for minor positions of power from the alliance. On the other hand, they still continue to hold considerable power at the local level in terms of control over co-operative networks and local government bodies. However, these power centres are subject to control from the state government. The maratha elites in the last four years did not hesitate to buy peace from the alliance and retain power either by joining one of the alliance partners or by operating as 'independents'.

In the past, Shiv Sena has been critical of the marathas for monopolising the positions of power. The BJP too was not known for being close to the maratha community. But since the 1980s both parties have realised that electoral politics in the state leaves them with very few options. Since both are not interested in constructing social alliances on a radical basis, they had to turn to the maratha community. This involved a betrayal of their considerable OBC following. This betrayal need not surprise us because both the parties looked upon – and continue to look upon – the OBCs as mere cannon fodder. The real surprise, however, was the response of the maratha elite. Large sections of the maratha elite did not appreciate the policies initiated by Sharad Pawar. They had very myopic notions of distribution of resources. Their discomfort at the pro-urban policies of the Pawar government landed them in the laps of the alliance which was closer to and organically related to the urban interests. Secondly, sections of maratha elite were opposed to even cosmetic measures directed at social justice. This opposition dates back to the issue of renaming of the Marathwada university after Dr Ambedkar. Disregarding their opposition, renaming was done in 1992. The state government also introduced reservations for OBCs in the local bodies, thus partially undermining the power of the maratha elite at the local level. In this background, the maratha elite distanced themselves from the Congress in 1995 and contributed to the defeat of the party. Once the party was out of power, some of them started discovering the virtues of Shiv Sena. We need also to keep in mind the fact that being high up in the caste hierarchy and having claimed the kshatriya status, marathas are favourably inclined to the Hinduist appeal. The peculiar situation of the state makes it difficult for the marathas to join the RSS-led BJP. In Maharashtra, the marathas have had a history of adversarial relation with the brahmins. They have in fact led the non-brahmin movement in the first half of this century. In view of this, direct entry into the BJP is a difficult proposition. Nonetheless, the appeal of hindutva led many a maratha elite to the doors of Shiv Sena.[2] But after all, Shiv Sena is a family enterprise. Therefore there are limits to what Shiv Sena can offer these maratha elites. But the behaviour of the pro-Sena elite among the marathas suggests that they will be ready to compromise their and the community's interests for small gains. This is for three reasons. Firstly, most maratha leaders understand power only in terms of access to state resources. This understanding means that electoral defeat is an end to the political power of the person concerned. Hence, one has to remain in the vicinity of state power by whatever means. Secondly, management of the co-operatives is in a very bad shape and many of them cannot survive without the support of state government. Worse, the co-operative network is today almost devoid of popular base. This situation compels the leaders of the co-operatives to try and remain in the good books of the government. Thirdly, the maratha elite is interested in keeping the OBCs away as far as possible. If they support the Sena, that might result into less tickets for the OBCs. The foregoing discussion does not suggest that the entire maratha community shares this short-sighted approach. However, electoral mobilisation allows greater role for these community elites than their actual worth. At local levels these leaders can considerably transfer votes from one party to another.

Congress Rejuvenation

This is where the Congress comes into the picture. The Lok Sabha elections of 1998 have shown that the party still continues to have both popular base and a network of local leaders who can mobilise votes. Encouraged by the results of the last Lok Sabha elections, a number of rebel MLAs have been seriously thinking of joining the Congress. However, there seems to be two constraints in this respect. Firstly, the present Congress leadership is less than enthusiastic about the return of the rebel MLAs. This is not merely because their return will complicate the issue of ticket distribution in next assembly election. The Pradesh Congress seems to be believing that with Sonia Gandhi at the helm, the voter will be naturally attracted to the Congress and therefore, the entry of rebel Congressmen is of no consequence. Secondly, the installation of a new chief minister has forced the rebel MLAs think twice about their plans. Twenty-six of the 44 'independent' MLAs gave a written statement to the governor pledging support to the new chief minister. One reason for this new-found love is the fact that the new chief minister is a maratha by caste. This response by the independent MLAs poses a problem before the Congress. For long, the party was seen as the representative of maratha interests. Having lost the confidence of that community, should it try and regain support from marathas or should it go in favour of a maratha-OBC combination? This brings back the Sonia factor. It will be difficult for the party to win elections exclusively on the basis of the magic of Sonia Gandhi.

What Does Congress Stand For?

The party will require a four-fold strategy to electorally confront the BJP-Shiv Sena alliance. This will consist of a popular national leader, competent state level leadership, network of local workers, and a durable popular vote base. A towering and popular national leadership will indeed be very necessary for attracting voters. A large number of voters would definitely be swayed by identifying with a leader who they believe is above party factions and sectional interests. But such national leadership can click only when the state level leadership is active in mobilising the people. In Maharashtra the Congress has been less than successful in this respect. Sharad Pawar is the only leader at the state level but many sections within Maharashtra Congress would rather see the Congress be defeated than accept his pre-eminence. On his part, Pawar has been repeatedly *unsuccessful in making himself acceptable to rival factions. Pawar has failed on two* other counts also. He has not been able *to mobilise agitations against the ruling alliance in last four years. Although he had* publicly promised that Congress would not topple the present government, that should not mean that the Congress would abdicate its responsibility as opposition party. The experience of last four years has shown that having failed as a ruling party, the Congress has lost as an opposition party as well. As a result, in the face of elections, Congress has merely to fall back upon its traditional support base. Pawar landed in this predicament because of his uncritical and blind shift to the policies of liberalisation. He might have thought that by adopting these policies, he would win over the capitalists in his bid for national leadership. But such a stand also involved estrangement from the mass of poor voters with disastrous electoral consequences. At the present juncture, Congress in Maharashtra will have to focus more on the questions of rural poverty and unemployment. This requires a modification of the party's stand on the economic issues on the one hand and sincere efforts to integrate the OBC interests in the party on the other. This state level exercise alone can translate the Sonia magic into votes.

Such an exercise will also require a network of vote-mobilisers. It is not sufficient to have only well-intentioned policies or a commanding leadership. Our electoral context makes it necessary to have 'middlemen' – the linkages between party and the voters.[3] This peculiarity stems from the fact that the electorate is composed of many cross-cutting interests and social segments. Besides, the 'language' of parties and politicians often needs to be deciphered and communicated to different sections. This can be done only by the local activists of the party. The defeat of the Congress in 1995 was partly due to the refusal of such linkpersons to oblige the Congress. Unfortunately, this aspect of elections has not been adequately emphasised. During the last four years, many local Congress workers, who were not accustomed to functioning as opposition workers and whom the state leadership did not bother to steer into meaningful action, have aligned with the ruling coalition. For most of the local Congress workers it is hard to intelligently explain to the voter what does the Congress stand for. They are too much hooked to the local power structures and entrenched interests. This alignment implies that they find nothing wrong in disregarding the party in favour of local considerations.

Finally, what kind of popular base does the Congress project for itself? In terms of caste, we have noted above that *the traditional maratha following of the Congress has become vulnerable to appeals* from the Shiv Sena and the BJP. Some sections of the maratha community are not prepared to accommodate the dalits or the OBCs. In fact, this predicament has landed the Congress in the present situation. At the same time, the maratha community cannot be entirely bypassed either. The task before the Congress leadership would be to disintegrate the mythical maratha vote and to seek to build new alliance of the poor maratha with other non-maratha castes including the dalits. The split in the maratha leadership and the maratha vote in 1995 offers the Congress such an opportunity. This will virtually mean writing a fresh text for the future politics of the state. At the moment, no Congress leader seems to have any interest or inclination to undertake anything resembling this. It is more likely that the party will content itself with tokenism and clever electoral manipulations expecting quick gains. The Congress has also been unable to extend its base beyond the rural constituency. In a rapidly urbanising state, this limitation might prove very significant. Although the ruling alliance is unpopular in urban areas, the Congress does not have the network of activists for effectively organising this dissatisfaction.

Third Force

The foregoing discussion revolves around the Congress because in the present circumstances there is very little space for the third alternative in the politics of the state. In the last assembly elections, although the Congress was defeated, the performance of the third alternative parties was dismal. The Janata Dal has never been a relevant force in state politics. The communists too have only a few pockets. The Peasants' and Workers' Party (PWP) is fast becoming a relic of the past. It has some base left in four or five assembly constituencies. This leaves the Republican Party of India (RPI), which is always fraught with unending factionalism. The RPI has following in most constituencies but that is inadequate to ensure victory of its candidate in any single constituency In the 1995 election, Janata Dal won 11 seats, PWP won six and CPI(M) three seats. The Samajwadi Party, a new entrant to state politics, won three seats. In the last Lok Sabha elections, the Congress had an alliance with the RPI and the Samajwadi Party. The RPI contested four seats and won all the four seats. Incidentally, all

these four seats were unreserved constituencies. After the elections, internal factionalism erupted in the RPI and the Ambedkar faction and the Athavale faction held separate conventions. For all practical purposes, today the party is split into two. Prakash Ambedkar, leader of one faction, has long been arguing for a third alternative. Even after the successful alliance with Congress for parliamentary election, he has relentlessly argued for a third force. However, he is handicapped by the fact that there is no third force in the state. In the assembly elections slated for next year, supporters of third alternative have little scope for manoeuvre. The JD and the PWP do not count. Therefore, third force can come about only through the alliance of RPI and Samajwadi Party. Experience of 1995 assembly election shows that such a configuration can only lead to strategic advantage to the BJP and Shiv Sena. Thus, the third force argument faces a double dilemma. National politics suggests the futility of pinning all hopes on the Congress. But at the state level, the anti-Congress space is presently occupied by the BJP and Shiv Sena. Therefore, how is one to pursue third force politics without indirectly helping the BJP? The dilemma is more complex when one considers the electoral options in the state. If the so-called third force joins the Congress, it fears amalgamation at state level and subsequent weakening of third force agenda at the national level. On the other hand, the very existence of the third force in state elections may cause the victory of the present ruling combine. Thus, state politics does not leave room for the independent existence of third force. In other words, the terms of political exchange cannot be defined by the third force parties. It must be squarely faced that this situation does not arise only from the compulsions of electoral politics. The third force parties in fact, relish the situation of electoral uncertainty. They are mostly not interested in building a long-term strategy. This is evident from the cavalier fashion in which the question of alliance with Congress was handled in after the Lok Sabha election. The RPI got and won four seats. This advantage was squandered without concentrating on party building and broadening the social base of the party. It has now become almost tiresome to repeat that the RPI must go out to non-mahar as well as non-dalit sections and that it must develop durable organisational structures. Instead, there has been constant attempts to monopolise the same small but somewhat strategic support base. The competition between Ambedkar and Athavale is for this very limited base. Neither has seriously attempted large-scale mobilisation with a specific agenda. Come election and they will flex their muscles for a greater share from a beleaguered Congress. This might win some seats but cannot expand politics of the third force.

Unpopular Plunderers

The foregoing discussion is grounded on the assumption that the present ruling alliance has not endeared itself to the electorate during the last four years. People in the state have in fact been faced with an alliance of plunderers. Recently, a cash strapped Maharashtra government has been spending huge sums to advertise its so-called achievements. One wonders if anyone will take these advertisements seriously. Fiscal mismanagement coupled with corruption and non-feasible populism has meant that the state is on the brink of bankruptcy. Moreover, the ruling combine has become extremely unpopular among different sections of the society. The Shiv Sena and BJP seem to be committing the same mistake which Sharad Pawar's Congress committed: ignoring their urban base, the ruling alliance is now targeting the rural vote. This means that they will be losing the urban vote without necessarily winning popularity among the rural populace. The desperation is so widespread that at the recently concluded 'mahashibir' (mega-conference) of Shiv Sena at Nasik, Thackeray appealed the people not to vote the Congress even if they did not want to vote the Sena! The strategies of the Sena and the BJP, like those of the Congress earlier, are ad hoc, manipulative and lacking a clear direction. On the one hand, the government is going fast on the super highways project, while allowing the alienation of large sections of white collar middle class employees. The much advertised Krishna valley project has run into difficulties while alliance partners are engaged in competitive populism on the issues of free supply of electricity to farmers and the prices of cotton. In the social sphere, too, the alliance has carefully avoided face off with the Muslim community but landed in trouble over VHP's anti-Christian campaign. The BJP has constantly tried to distance itself from Sena in the case of corruption charges hoping that this will ensure the support of urban voters. The last four years have witnessed constant bickering between the Shiv Sena and the BJP on the one hand and tension between Thackeray and the earlier chief minister, Manohar Joshi. The political scene was further complicated by the factionalism within Shiv Sena. For some time now, efforts are going on to form a party of disgruntled Sena followers. Should that happen, the prospects of Sena in the Marathwada and Vidarbha regions will take a further dip. The BJP hopes to gain from the failure of its partner. On its own strength, the BJP cannot boast to win many seats. It expects to keep in tact its urban middle class votes and receive the support of disenchanted Sena followers. The tragedy for the state is that the Congress is not sincerely interested in fighting the plunderers and the self-proclaimed third force lacks both the vision and the strength to initiate public agitations. Given this scenario, the state may witness electoral reverses but there is reason to fear that the political process may not really change for the better.

Notes

1 For details of voter preferences in the 1995 elections, see Suhas Palshikar, 'Capturing the Moment of Realignment', *EPW*, January 13-20, 1996; pp 174-178. The Congress has not been able to bring back all sections of the maratha community during the last four years. As a result, many 'independent' maratha MLAs continue to support the alliance.

2 Vora, Rajendra and Suhas Palshikar, *Maharashtratil Sattantar* (Marathi), 1996, Granthali, Mumbai, pp 124-127.

3 Often election results are understood in terms of percentage of votes, and in answering the question why did voters choose a party, recourse is taken to voter preferences. This may not throw adequate light on how were voters mobilised. Vora has argued that factionalism matters in elections because factional leaders are important links between voters and parties. See Vora, Rajendra, *Rajyat Congress Ka Harali?* (Marathi, Why Was the Congress Defeated in the State?), *Loksatta*, May 19, 1996. I feel that this is an important argument which needs to be elaborated and tested as an aid to voter surveys.

Threats to Syncretic Culture
Baba Budan Giri Incident

Muzaffar Assadi

Karnataka's long syncretic tradition is increasingly coming under attack from elements of the hindutva forces. The Baba Budan Giri incident last December is an illustration of this new focus.

A small hill station known for syncretic culture, Baba Budan Giri in the picturesque Chickmagalur district had suddenly become the focus of new hindutva forces. The VHP and Bajrang Dal declared that on December 3 they would be 'liberating' Datta Peeta/Dada Peer dargah from the clutches of Muslims. Towards this end, they resorted to the strategy of taking out rath yatras, paralleling Advani's strategy during the Ayodhya issue, from five different places, converging in Chickmagalur one day prior to the Datta Jayanti on December 3. The first rath yatra was flagged off on November 20 from Chickmagalur covering all the mandal panchayats; the second began from Narasobanwadi in Raibagh taluk of Belgaum on November 25 covering Belgaum, Uttar Kannada, Mangalore and Shimoga. The third rath yatra started from Gangapura in Gulbarga district on November 27 and passed through the districts of Gulbarga, Bijapur, Bagalkot, Dharwad, Hubli, Davanagere and Shimoga; the fourth began from Huragadde in Raichur covering Bellary and the last was flagged off from Melkote on December 1 passing through Hassan and Mandya. In addition, new hindutva forces, among them the Bajrang Dal being the most vocal, threatened to send suicide squads or to take a confrontational path if things were not 'righted' within a year, meaning two things: offering pooja every day and replacing the present custodian who is a Muslim. Nonetheless, despite the provocative speeches, the convergence of more than 10,000 people, and the hoisting of a flag atop the Baba Budan Giri hills, the Dattaraya festival went off peacefullly. The state government handled the situation very firmly. Nonetheless, it brought to the centre-stage a number of issues as to what would be the consequences of Baba Budan Giri incident on the historic syncretic culture prevailing in Karnataka? What was the main agenda of the new hindutva forces? Who would be the immediate targets? Why is that Bajrang Dal interested in this issue more than the BJP? Why was Baba Budan Giri selected than any other place in Karnataka in particular, south India in general.

Baba Budan Giri represents an unique syncretic culture of Hindus and Muslims where both offer prayers in a cave-like structure. It derived its name from a Muslim Sufi saint who was in turn the disciple of another Sufi saint called Hazrath Dada Hayath Meer Khalandar. Dada was one of the earliest to arrive in India (1005 AD) from west Asia to preach Sufism in India. When he came to south India, he selected the present cave for his meditation. In fact, the Puranic name of the hills was Chandra Dona, as it look like a crescent or a horse shoe. The place Dada selected was equally believed to be the seat of Dattaraya Swamy, who is said to be the last avatar of Vishnu; he is believed to have vanished from one of the caves to Kashi to be reincarnated in future. Another belief is that Dada Khalandar and Dattaraya Swamy are one and the same person. The story goes that after clearing the area Dada decided to settle down for meditation. "He needed water to perform 'wazu' for his prayers. He was a stranger in this area and did not know where water was available. He prayed and started digging the ground in front of the place he had selected as his seat of meditation and found a perennial spring. He thanked god and spent the night in prayers and meditation. Early in the next morning a brahmin and a jangama entered the cave, as per their custom, for worship. Seeing Dada absorbed in meditation they thought that he was the incarnation of Sri Dattaraya Swamy" (Sajjade Nishin, *Hazrat Dada Hayat Meer Khalandar*, 1979:10). Likewise the Hindus, Muslims also believe that Dada had disappeared from one of the caves to Mecca and Madina and is alive and will in due course appear before the disciples. After him, Baba Budan, one of his closest disciples who introduced coffee to this hilly region, brought from Mocha in the west Asia, carried his mission further. Baba Budan, whose history is usually traced to Bagdhad, reached Chickmagalur via Malabar and Mangalore. Baba Budan was killed in an ambush near the present cave and was burried along with two other Sufis inside the cave. Interestingly, he is also called Hazrath Syed Meran Baba and also Jan-e-Pak Shaheed. The institution of custodian of the site although it is traced to Dada, began to centralise in a single family after the death of another Sufi saint, Hazrat Syed Shah Jamaluddin. "For reasons not known Jamaluddin also became famous as Baba Budan during his life time" (Ibid, p 43). The custodian of the site/shrine is called Sajjade Nishin. There are a few characteristics attached to him: "only Sayyads can become swami, either Husseins or Khadris, the descendents of Hussen or Hassan, sons of Ali. After initiation, a Khadri becomes Shah Khadri, and after apostolic seat, he is styled Sajjade. No unmarried man can become Sajjade" (*Mysore Gazetteer*, 1927:1137). Now this particular institution has come under threat.

In Datta Peeta/Dada Peer dargah the syncretic culture comes to light in many ways. The date of the Urs is decided on the basis of the Hindu calendar; musical instruments like 'kombu' and 'kahale' are part of the Urs, Muslims and Hindus pray to both the 'padukas' kept in the cave supposed to be of Dattaraya and Dada Peer; Sajjade Nishin, the present custodian is called 'swamy' and also 'Sri Dattaraya Swami Baba Budan Swami Jagadguru', worship of the peeta or the seat is exclusively the privilege of an unmarried man or fakir; Hindu symbols like breaking the coconut in front of the gate is a common practice; collecting the sandal or soil is not uncommon; and the Hindu tradition of lighting the lamp is also practised and finally Hindus and Muslims celebrate Datta Jayanti and Urs every year in the same place.

A large number of stories have been constructed around Dada's dargah. These stories pertain to the spiritual and healing powers including the power to bestow children, relief to physical disorders, property disputes, etc. This is one of the reasons why the site has become famous. There are stories about how Dada protected a princess who later on came to be known as Sathi Samyukta by Hindus and Mama Jigni by the Muslims. Most important is the story about how the princely state of Mysore was bestowed with an heir to the throne by Dada, and how the maharaja would be able to break the stone laid before the cave. This is a typical story which has similarities with the stories surrounding the birth of Jahangir (with the blessings of Sufi saint Nazrath Shah Sali) and Tippu Sultan (with the blessings of

Tippu Aulia of Arcot). This story is important for two obvious reasons: It provided legitimacy to the claims of spiritual power of the Sufi saints, secondly, it made the state liberal, moderate and secular:

> Sri Krishna Raja Wadiyar had no son in his family for a long time. He was worried much about it. Once, coming out of the dargah, he saw the stone slab where devotees broke the offered coconuts. Struck with an idea, he made a vow quietly that he would split that stone with coconuts on the birth of a son in the family. Soon after that his brother had a son, Sri Jaya Chamaraja Wadiyar. He came to the dargah with cart-loads of coconuts to fulfil his vow and began breaking coconuts one by one. The stone remained solid even after many cart-loads were finished. He was in a dilemma. He had to fulfil his vow but it appeared impossible. At long last he realised that in his anxiety he made a vow which was apparently impossible. He explained the situation and requested Hazrath Peer to take him to Dada and pray for his pardon and suggest a solution. After Hazrath Peer recited the Fateha, Maharaja expressed his gratitude to Dada, repented his folly, sought out of the dargah and following the instructions, he broke the coconut on the stone slab. To his pleasant surprise the stone developed a crack (Sajjade Nishin:29).

Support to temples, mosques or to the shrines were not uncommon in Karnataka. Karnataka had the tradition of tolerant state system both under princely rule and under the Muslim rulers like Tippu Sultan and Hyderali, even though the latter two have become the victims of colonialist historiography. Colonialist historiography often projected them as 'cruel' (Nanjundayya, *The Mysore Tribes and Caste*, Mysore, 1931:281) and 'intolerant' who made the "cause of Islam a pretext for the most terrible persecution of degradation with a wowed object of extinguishing every other form of belief" (Lewis Rice, *Mysore Gazetteer*, 1931:479-80). This project had the larger design of negating the significant contributions that these rulers made towards building a secular/tolerant society. There are many instances where both had supported temples, mathas, which however are ignored. Tippu helped the monastery of Srinigeri, one of the mathas or monasteries was established by Shankaracharya after it was plundered by maratha horsemen; he provided financial help to the same monastery for the purpose of Shata Chandi Japa and Sahastra Chandi Japa ceremonies; he gave land and cash awards to Lakshmikant and Nanjundeshwara temples in Kalala village in Nanjangud taluk; gave financial assistance to Srikanteshwara temple in Nanjangud and Narayanaswami temple at Melkote, Ranganatha temple at Srirangapatna, Anjaneyaswami temple at Ganjikota, etc. His patronage also includes temples in Trichur (Vadakkunathan), Vailattur (Tiruvachikulam), Guruvayoor (Guruvayoor), Tikkandiyur (Tikkandiyur Samooham temple), etc (C Rajeswara Rao and Hasan Abdullah, *Tippu Sultan Facts and Fiction*, 1990:14). It is in this situation or context of contesting the history or erasing the memories of history that new hindutva forces and the colonialist historiography come close. This is not limited only to Muslim rulers but even to the Sufi saints In the case of Dada Peer dargah/ Datta peeta the colonialist historiography made three observations: that it was 'occupied' by a 'Musulman' Sufi saint; that it was a placs of Hindu 'worship' and finally that Dattaraya Swami and Dada Peer were one and the same. New hindutva forces have picked up similar arguments adding new issues: "This place was once a place where great sages had performed meditation and now the same has turned into a place were cow slaughter is practised". "This place has to be made part of Hindu community. If Bharat Mathe is not worshiped in India where else would it be possible? Is singing Saraswathi Vandana wrong? (*Deccan Herald*, November 21, 1998). It is in this context that the issue has to be analysed from the larger perspective.

In fact, this particular issue has to be seen against the backdrop of crises that the new hindutva forces, including its political outfit BJP, are facing subsequent to the demolition of Babri mosque and the coalition politics that the BJP entered into. Earlier to demolition, the Babri mosque issue or debate provided hindutva forces a strong case to defend and expand its bases. The socio-political agenda of capturing power was partly realised when its outfit BJP came to power at the centre and other parts of India, however with the help of coalition politics. The demolition although, helped the BJP in the immediate context of capturing power, but itself created a vacuum leading to internal crises. This is the reason why hindutva forces including BJP have not been able to take up or raise the Mathura Krishna Janmabhoomi issue or the issue of Kashi Vishwanath. Here lies the identity crises too – neither was it interested in loosing its identity as the conscious bearer of Hinduism nor going into history as a spent force. In addition the election results in three important states – Madhya Pradesh, Rajasthan and Delhi – further added to its problem. North India is becoming vulnerable to hindutva politics. This is the reason why hindutva is now looking for an issue, mainly in south India. Baba Budan Giri came in handy to bridge north and south India within the larger framework of hindutva. Since Chickmagalur is known throughout India (Indira Gandhi contested the Lok Sabha election and won in the 1970s), hindutva forces had no trouble projecting the place at the all-India level. In addition, Karnataka was even as fertile ground for realising or reclaiming of overcoming the crises and therby consolidating its bases. The recent victory in the Lok Sabha election has been treated as a legitimate consent to its activity, and also that it reflects the prevailing strong bases of the new hindutva. Nonetheless, one cannot negate the effect of political uncertainty prevailing in Karnataka. Here it is trying to appropriate the uncertainty in the event of election. It is in this context that Baba Budan Giri was suddenly brought to centre stage.

Syncretic culture would be the first victim of new hindutva forces. There are a large number of dargahs and peetas venerated equally by Hindus and Muslims in Karnataka. In Bidar, Bande Nawaz, in Davangere Gulam Shah Vali, Mulang Shah Vali, in Mangalore Syed Madani, in Shimoga Darvesh Shah Vali are some of the dargahas. In fact, every district, hobli or taluk has at least one dargah or peeta which has bridged the gap between the communities. There are temples too which are also venerated by Muslims. In Mulki, nearing Mangalore, Bappa Nadu temple, Shishunala Sharifa temple in Dharwad district, Ilaval Shakti temple in Mysore, Yellamma temple in Dharwad are some of the temples which were either constructed by Muslims or been revered by them. In these places syncretic culture is expressed in many ways: In Holeyal in Dharwad district the 'gaddige' or the seat is constructed in such a way that half of it is in Muslim style and another half is in Hindu style. In Mulki, the car festival has to begin with the consent of Bappa Bairy family. In Kateel Durga Parameshwari temple in Mangalore district, every year Muslims have to perform a popular folk drama or 'aata'. In Anandpur in Shimoga the temple and mosque have a common wall. In these places it is obvious that symbols of the two communities have no separate meanings. Lighting the lamps, breaking the coconuts, offering arathis, wearing the beads, etc, are not the monopoly of any particular community. They never became the contesting issues either in Baba Budan Giri or elsewhere in Karnataka. These are the places that prevented the frequent occurrences of com-

munal riots in Karnataka. During the colonial period there was only one big communal riot time in the 1920s, on the issue of Ganesh festival. During the post-colonial period uptil the late 1980s the number swelled to 30 which was a small number compared to other parts of India: Belgaum, Hospet, Bagalkot (1957), Gulbarga (1964), Mangalore (1967), Chickmagalur and Munireddy Palya (1968), Hubli, Belgaum, Gulbarga and Bantwal (1978), Kolar and Bijapur (1979), Hassan, Kollegal and Sira (1980), Shimoga (1981), Robetsonpet (1982), Davangere (1984), Shivaji Nagar Bangalore (1984), Bangalore, Mysore, Shimoga and Bidar (1987), finally Sidlagatta and Kolar (1988). These are the places known for acute contradictions between Hindus and Muslims on such issues as capturing the economy, larger market and the labour power. Nonetheless, what changed the course of syncretic culture or communal harmony is the Babri mosque-Ayodhya issue. This has had two consequences: one, increasing ghettoisation or realignment of houses or dwellings to their respective community areas; two, perpetual communal tensions in many places and the notion of 'perpetual abstract threat' in the localities. Once again the syncretic culture is under threat.

The poor and the marginal sections are particularly threatened. The people who visit dargahs or peetas are belong to these groups; they have seen in these dargahs/peetas a place offering solace. More than that they have become cultural and identity symbols for these people, especially in the way sufis/saints lived in simplicity and perfect harmony. Suddenly they are confronted with the idea that these symbols of life are collapsing or becoming the contentious issues. It is here that a new crisis is emerging at the grass roots level – crisis of culture, identity and the self. This is a dangerous trend that the issue has unleashed.

Why is the Bajrang Dal more interested in fomenting the communal cleavages on this particular issue? This can be seen in terms of the social bases and the immediate agenda of BJP and Bajrang Dal. The social bases of the latter can be located among the unemployed, semi-literates, semi-urban and largely with the lumpen. BJP's bases are located in urban areas, merchant/capitalist class, middle class and the educated. The Bajrang Dal had the immediate agenda that once the communal passions are aroused in the vicinity of the coffee economy, it would have the consequences for coffee planters and labourers. The latter would be forced to vacate the estates, especially those who have come from Tamil Nadu and from other districts of Karnataka. This would be filled up by the locals. However, in the Malnad region most of the money to the BJP's party funds comes from the coffee economy which is why in the last Lok Sabha election BJP won two seats in the Malnad region. This is why in the immediate context the BJP down played with the issue, although in the larger context it supports the new hindutva forces. In this clash of interest will Karnataka's syncretic culture be preserved?

Crime without Punishment

Frederic F Clairmont

Sir William Macpherson's official inquiry of the killing of a Black student by fascist thugs unequivocally brands the police and by extension the justice system as 'institutionally racist' and presents many policy recommendations. Will this report make for a change?

> Skin colour is a permanent and involuntary uniform which performs...the functions of a uniform in warfare, distinguishing one side from the other, friend and foe, making it possible to see at a glance where to render assistance and where to attack.
>
> – Enoch Powell.[1]

BENIGN myths and counter-myths have always sedulously shrouded the overpowering and historical reality of the mendacity, corruption, violence and endless cover-ups perpetrated against the British working class, and of more recent vintage, its ethnic minorities, by one of the UK's paramount ruling class institutions: the 1,25,000 police force. That in the most bourgeois of nations whose media barons, and their political hustlers, unceasingly babble about human rights and, in the current foreign secretary's lingo, the ethical dimensions of British foreign and domestic policies.

The crime of Stephen Lawrence, a British born 18-year old Black student, was the fulfilment of the testament of Brigadier Enoch Powell, a leading ideological engineer of British toryism. He was stabbed to death when waiting for a bus in the suburb of Eitham by five fascist thugs. With his "permanent and involuntary uniform" his assassins knew "where to attack". He was left bleeding to death, unattended. Even in death, however, there would be no peace. His granite tombstone was smashed by racists less than 24 hours after the publication of the official inquiry.

It was not the end of this despicable event. It turned out that the surveillance camera, ostensibly monitoring the site, was a police fake. Indeed, the close circuit television camera was removed even though the metropolitan police were forewarned that his tomb would be targeted by fascists. This was the ordeal of the triple coup; after this desecration his Jamaican parents dispatched his body to Jamaica for its final resting place. "It is just as well", one Black woman noted, "for, these people will never let him rest in peace". Once again another racial murder served as a grim reminder of the gathering speed of racism in Europe and in the US.

Racism is not confined to the police force but ramifies into all public services, strikingly so in the foreign office and the armed forces. It infiltrates every cranny of British society. The rapacity of racism has been speeded up with Thatcher's demolition of the Welfare State under and perpetuated by Blair's model of the 'enterprise culture'. Without market freedom intones Milton Friedman liberalism and its entire works. The social and racial reverberations are all too apparent. The two nation thesis that Benjamin Disraeli (1804-1881) formulated in the middle of the last century has not lost its potency.

The UK no less so than the US is a society ripped apart by race and the inequities of class domination; a social order in which the rich are getting richer and the poor getting poorer, or at best clinging to their precarious existence. Around a quarter of the Black and Asian population hover near or below the poverty line. Rabid discrimination and segregation in education, employment, housing, social services linked to untrammelled market forces have massively marginalised ethnic minorities in both the US and the UK.

The market, so goes the fatuous rhetoric, is the great equaliser for all members of society: Black and White, young and old, males and females. The market must be the deciding benchmark of human welfare: the one and only. The propaganda model and the reality however are widely asymmetrical. The gap between the earnings of the top of the capitalist income pyramid and the others is widening, alarmingly and not only in the UK. It is arduous to estimate the actual returns

of the corporate caste executives because their financial remuneration (in most cases concealed by complex accounting stratagems and disbursed in offshore bank accounts) contain all sorts of complex variable payments. A top executive in the UK by standard accounting procedures earns between 20-25 times the earnings of a junior clerk.[2] By the magic of creative accountancy the disparity is much bigger.

Sir William Macpherson's official inquiry tersely entitled: *The Stephen Lawrence Inquiry* (Her Majesty's Printing Office, London, February 1999) is one of the most formidable landmarks in British social history of the 20th century. It unequivocally brands the police and by extension the justice system as 'institutionally racist'. The case is argued with a sustained and unrelenting passion, a rare bird in the annals of official British documents. After more than 70 days of hearings and more than a 100 witnesses and over 100 pages of testimony two major themes emerged: pervasive institutional racism in the metropolitan police and the crass injustice of a judiciary justice that allowed his five killers to be freed. The damning specifics of the inquiry presented in its 70 policy recommendations is a superb achievement in its uncompromising moral rectitude. But will it suffice to half racism that has scaled such momentous heights, and which exhibits no signs of deceleration?

Indeed, why should Sir William's report succeed when the Scarman Inquiry (1981) born of the Brixton and Toxeth racial uprisings miserably failed? Why has the Race Relations Act which has long existed, with all its fancy legal paraphernalia, remain nothing more than a disingenuous legal artefact? The brute facts of British racism – and hypocrisy – are stunning evidence of official double talk and barefaced deception. According to official data, Black and Asian citizens are five times more susceptible to be halted and searched than others. Unofficial questioning is even more grotesquely disproportionate. Likewise racist crime is blatantly under-reported. This is a policing system that puts a premium on what the British and their US police counterparts label 'racial profiling'. Numbers by the Home Office for 1996-97, pinpoint an absurdly exiguous 13,151 racial attacks, whereas according to the British Crime Survey more than 10 times such racial attacks occurred.

Note the grim similarity on the other side of the Atlantic. "To be a Black driver in America is to invite police scrutiny, as thousands are daily singled for groundless pull-overs, 'pretext' stops, and subjected to intrusive, warrantless searches and abusive treatment by the police" (*Counter Punch*, Washington, DC, March 1-15, 1999). Nothing could be more poignantly descriptive of the hatred and callousness of the police towards coloured peoples than the reaction of the detective chief superintendent responsible for investigating Lawrence's murder. When Doreen Lawrence presented him the list of suspects he grabbed it, according to her testimony, "and rolled it up to a ball in his hand".

Coinciding in time with the appearance of the Stephen Lawrence Inquiry was the racist master plan for Africa blueprinted by Marshal Bernard Montgomery written in 1947 and released by the Public Records Office. It was his grand imperial plan to turn the continent into a white supremacist rampart against communism one of his dominant obsessions until his death. Montgomery, a close friend of Brigadier Enoch Powell, tells us that "the African is completely savage and is quite unable to develop the country himself". Among his many gems was that "we should have no nonsense with the United Nations about Tanganyika; it should be absorbed into the British bosom (*Reuters*, January 8, 1999). Had he forgotten that this 'completely savage' species had fought in almost all major theatres of war: south-east Asia, the west Asia, East and North Africa and Italy?

The fascist execution of Lawrence bears striking similarities with the findings of the official report of the Lyndon Johnson administration entitled: *The National Advisory Commission on Civil Disorders* published in the wake of the racial uprisings in Newark and Detroit in 1967. Its findings have not been tarnished by time nor has it lost its relevance to race and class divided Britain stumbling into the next century. "Our nation is moving towards two societies: one black, one white – separate and unequal. Segregation and poverty have created in the racial ghetto a destructive environment totally unknown to most white Americans. What white Americans have never fully understood – but what the Negro can never forget – is that White society is deeply involved in the ghetto. White institutions created it, white institutions maintain it, and White society condones it (Summary, March 1 1968, Government Printing Office).

Lawrence's execution will no doubt be a catalyst in British race relations for there are now tens of thousands of coloured activists, joined to others, to whom racism is one of the vilest of crimes, incompatible with democratic values, and who are bent on changing the vileness of the present order. There are of course those, like Doreen Lawrence, however, to whom unremitting repression and assassination of coloured peoples will continue to remain an immutable fact of life. "My feelings about the future", she lugubriously notes, "remain the same as when my son was murdered. I believe Black youngsters will never be safe in the streets" (*Financial Times*, February 25, 1999). On that score, however, the ultimate solution goes well beyond the compassionate recommendations of the Macpherson Inquiry.

Notes

1 *Time*, February 7, 1977. This had in mind no doubt is what David Lloyd George had in mind when he said in the thirties that 'when you scratch a Tory you'll always find a fascist'. Quoted in R P Dutt, *Fascism and the Social Revolution*, Golianz, London 1934.

2 Hay Management Consultants London, February 1999. In the US the formal differential is 40-50 times.

India-Sri Lanka Free Trade Accord

K N Harilal
K J Joseph

Preferential trade arrangements, as have come into force under the India-Sri Lanka free trade agreement, have varying impact on sectors as well as regions in the two countries. Preparatory studies and careful planning are necessary in order to provide safeguards and to minimise adjustment costs.

THE contradiction between multilateralism, the principle around which the post-war trading system is supposed to be built up, and regionalism notwithstanding, the preferential trading arrangements are here to stay and grow. The success of the European arrangement seems to have proved to be too tempting for others to desist the urge for emulation. The last two decades witnessed the formation of nearly two dozen trading blocs in different parts of the world. Their survival and success rates, admittedly, have not been very impressive. But, the trend is there for everybody to see: The share of intra-bloc trade in world trade has been growing all these years almost consistently at the expense of 'most favoured nation' (MFN) trade. Not to be left out of the race, South Asian Association for Regional Co-operation (SAARC) countries also came up with a proposal for establishing a preferential trading bloc in the region, viz, the South Asian Free Trade Area (SAFTA). But, right from the beginning, it was clear that SAFTA would remain a statement of intention than reality for long. The political conflicts that distance the countries of south Asia are too complex to be resolved in the framework of SAARC in the near future. It may be this limitation of the regional arrangement that prompted the governments of India and Sri Lanka to experiment the bilateral route to achieve the goal of freer trade between the two countries. It is quite possible that the India-Sri Lankan free trade agreement would prompt similar bilateral agreements among SAARC countries and ultimately pave the way for the SAFTA.

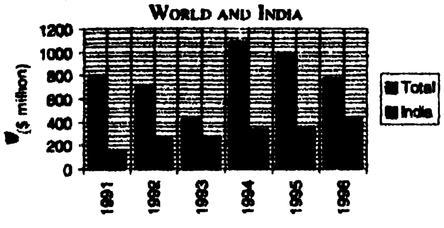
The long-term outcome of the India-Sri Lanka accord signed on December 28, 1998 by the prime minister of India and the Sri Lankan president would be nothing short of establishing a free trade area between the two countries. Both the parties have agreed to a time frame for phasing out the trade barriers affecting their mutual trade. India would remove customs duties on nearly 1000 items of imports from Sri Lanka before March 1, 1999, the day the new accord is scheduled to come to force. Within a period of three years trade barriers pertaining to other tariff lines would be phased out. On their part, the Sri Lankans would remove import duties on around 300 items before the deadline of March 1, 1999. Sri Lanka would be given a period of eight years for phasing out the barriers affecting the rest of the tariff lines.

Interestingly, in addition to their mutual commitment, there would be international pressure, especially from the World Trade Organisation (WTO), on India and Sri Lanka to stick to the time schedule and complete the process of establishing the free trade area without undue delay. It is true that in spite of its commitment to uphold the 'Most Favoured Nation' clause, the WTO treaty (Article XXIV of GATT 1994) provides for the formation of preferential trading arrangements (PTA). But, the sanction for preferential trading arrangement is subject to the condition that the PTA members remove all barriers to intra-bloc trade within a definite period of time. The WTO rules permit discriminatory trading within regional groupings, but the level of discrimination should be made complete, i e, 100 per cent, as early as possible! The failure of the PTA to remove intra-bloc barriers in time may force the WTO to ask the PTA members to extend the tariff cuts within the regional union to all WTO members in accordance with the MFN principle.

Whether it would ultimately result in the formation of a free trade area or not, the accord would have far-reaching implications for India -Sri Lanka trade and hence for both the national economies. The existing literature on PTAs, which is quite extensive and rich, would help us delineate plausible effects of the new regime of freer trade between the two neighbours. The net welfare effect of the PTA, if we go by the conventional theory of customs unions [Viner 1950], would depend upon the balance between trade creating and trade diverting influences of the preferential tariff reduction. The preferential arrangement results in trade diversion when imports are switched from third country sources to relatively inefficient member sources. Trade creation, on the other hand arises when imports are switched from domestic sources to relatively efficient member country sources. Empirical studies undertaken in the context of existing PTAs based on the above approach do not entail any definite conclusion on the net welfare effect of such arrangements [Pomfret 1988]. Further, according to the above approach, even when there is net welfare gain, such gains from the preferential tariff reduction can be no better than that of unilaterally eliminating the tariffs on a non-preferential basis. Thus, according to the conventional theory, preferential trading arrangements are economically irrational, as compared to the first best option of non-preferential tariff cuts and therefore, can be explained only by non-economic motives [Pomfret 1988: 111-16]. Later developments in the theory of PTAs, however, could break the impasse of the above framework, by relaxing its restrictive assumptions and incorporating more dynamic effects of preferential trading arrangements, viz, scale economies, improved technical efficiency, possible terms of trade effects and higher growth rates [Lipsey 1960, Corden 1986: 111-23]. Thus, the theory can now explain proliferation of PTAs in terms of economic advantages of preferential tariff reductions that cannot be replicated by MFN cuts.

In short, a study on the bilateral free trade agreement between India and Sri Lanka will have to take into consideration all the plausible static and dynamic effects of preferential trading before arriving at any conclusion on its outcome. The objective of the present paper is more modest. We do not intent to problematise the issue as to whether the proposed PTA would be gainful to the partners taken together or individually. Instead, our focus would be on its differential impact on the regions within the national economies. As the existing studies show, even a successful PTA, which augment the welfare of individual partners and the community as a whole, could have highly varying impacts on different regions within each partner country. The question of inter-regional difference in the impact of the proposed preferential trading arrangement between India and Sri Lanka assumes importance in the context of the fears expressed by the southern Indian states, especially Kerala. The available evidence in this regard, which we present here, clearly indicate the

Figure:
Trade Deficit of Sri Lanka, Rest of the World and India



need for a more cautious approach in the implementation of the new treaty.

Recent Trends in India-Sri Lanka Trade

Before we analyse the trends in India-Sri Lanka trade and the likely impact of the free trade agreement on the same, it would be useful to have an overview of the external sector situation in both the partner countries. The literature on economic integration suggest that macro economic policies of partner countries, especially those pertaining to the external sector, would have a major influence on intra-community trade, hence also on the prospects of the free trade arrangement. In fact, lack of synchronisation of external sector policies among partners could prove to be a major irritant in the process of building up preferential trading arrangements. This problem is particularly true in the third world context where the countries are more vulnerable to external shocks. As some of the key indicators presented in Table 1 show, this question of vulnerability of the external sector would be a major worrying factor in the context of the free trade arrangement between India and Sri Lanka too. None of the partners can boast of a blemish less record in this respect, nor can any one of them claim to have reached a safe trajectory. Any instance of instability in either Sri Lanka or India, and the policies used to overcome the same (for instance, devaluation of the currency) would tend to drastically affect the equations of bilateral trade. As we shall argue later, such external sector developments would also have their implications for the regional impact of the preferential trading arrangement.

There are many reasons to believe that the new accord will result in significant improvement in the two-way trade between India and Sri Lanka. First, in recent years, India-Sri Lanka trade has been growing at a faster rate than their trade with the rest of the world. While the total trade of India and Sri Lanka with the rest of the world recorded an annual compound growth rate of 15.3 per cent and 13.3 per cent, respectively, during 1991 to 1996, India-Sri Lanka trade recorded a much higher rate of 23.9 per cent. Second, notwithstanding the recent spurt, the bilateral trade even today accounts for only a negligible share of their total trade. In 1996-97 trade with Sri Lanka accounted for only 0.63 per cent of India's total trade and the corresponding share of Sri Lanka is 5.75 per cent. The third and the most obvious reason is the preferential access that the new accord would be extending to the partners in each other's markets. The preferential arrangement would give the Indian exporters an advantage *vis-a-vis* their third country competitors in the Sri Lankan market and *vice versa*.

An important aspect of India-Sri Lanka trade from the point of view of the current discussion is the burgeoning trade deficit of Sri Lanka with India (Table 2). The imbalance in the two-way trade cannot be taken as a transient phenomenon. The persistence and the high magnitude of the trade deficit are good reasons to suspect structural roots to the problem. The severity of the problem is further clear from the fact that the Sri Lankan deficit with India accounts for an overwhelming proportion of the island country's overall trade deficit (Figure). Thus, for instance, while Sri Lanka's trade with India accounted for only 5.7 per cent of its total trade in 1996, the share of its trade deficit with India in the overall trade deficit was as high as 55 per cent.

A cursory examination of the structure of trade suggests that the new trade treaty, in all likelihood, would worsen Sri Lanka's trade deficit with India, not only in absolute terms but also as a proportion of the bilateral trade. India's exports to the island country, as Table 3 clearly shows, are dominated by complementary products, characterised as they are by either weak or insignificant import competition in Sri Lanka. The list of such products include transport equipment, machinery and instruments, drugs and pharmaceuticals, chemicals, etc. In fact, with respect to a wide range of products, the competition that the Indian exporters face in Sri Lanka is not so much from producers in that country as from third country suppliers. Therefore, the preferential treatment accorded to the Indian exporters *vis-a-vis* other foreign suppliers would have a direct and favourable effect on the Indian sales in the island market. Now, the higher the favourable effect of the Treaty on India's exports, the higher would be the pressure on Sri Lanka to push her exports to India and keep the trade deficit within manageable limits. It will assume added importance because any efforts towards improving the trade balance with India will have a significant bearing on improving Sri Lanka's overall external balance. This could be accomplished only through an increased penetration of the Indian market by focusing on those products where Sri Lanka has export potential or comparative advantage. What are the potential areas of higher import penetration of Sri Lankan exports to India? Only by answering this question can one identify the regions which are likely to be adversely affected by the new treaty.

Export Structure of Sri Lanka

Any discussion of the export structure of Sri Lanka has to be made against the backdrop of far-reaching economic reforms implemented since 1977. Even though, a detailed account of the policy changes is beyond the scope of the present discussion, it may be noted that the reforms initiated in Sri Lanka were much more thorough going than the reforms

Table 2. Trends in India's Trade with Sri Lanka

(Rs crore)

Year	Export	Import	Trade Balance
1991-92	429.43	28.22	401.21
1992-93	718.30	39.84	678.46
1993-94	903.23	62.88	840.35
1994-95	1151.08	96.49	1054.59
1995-96	1343.78	138.32	1205.46
1996-97	1694.79	160.33	1543.46
1997-98	1771.57	121.48	1650.09
AGCR	26.6	27.5	26.6

Source: Centre for Monitoring Indian Economy (1998), *Foreign Trade*, Bombay

Table 1. External Sector of India and Sri Lanka: An Overview

	India (1996-97)	Sri Lanka (1996)
Export ($ million)	33764	4095.2
Import($ million)	48063	4872.2
Trade GDP ratio	25.0	75.0
Export concentration index	0.140	0.232
Export import ratio (per cent)	0.70	0.84
Trade balance ($ million)	14299	777.0
Current Account deficit ($ million)	3661	652.5
CAD as per cent of GDP	1.78	4.79
Foreign exchange reserves ($ million)	23784	1967.0
Reserves to import ratio	0.49	0.40
Log-term debt/GDP (per cent)	31.3	56.5
Exchange rate	35.93	56.7

Sources: Reserve Bank of India, *Report on Currency and Finance*, April 1998
United Nations, (1997): *Statistical Yearbook For Asia and the Pacific*, Economic and Social Commission for Asia and the Pacific, Bangkok

introduced in India. These policy reforms were manifested interalia in the move away from the system of non-tariff barriers, drastic reduction in the rate and dispersion of tariff across different products, sustained devaluation of the Sri Lankan rupee and many other measures intended to attract foreign investment.

The policy reforms resulted in some major changes in the structure of exports. In 1977 structure of Sri Lankan exports exhibited all the characteristics of a typical underdeveloped economy, with the traditional primary commodities accounting for more than 75 per cent of total exports. Moreover, the exports were highly concentrated in a few products like coconut, rubber and tea. But, by 1992, the share of primary commodities declined to a level as low as 33 per cent of total exports. Along with the change in the commodity composition there has been a change in the ownership of exports as well. The share of foreign firms in manufactured exports increased from 9 per cent in 1979 to over 71 per cent in 1992 [Wignaraja 1998]. Thus, the reforms initiated since 1977 have been quite successful in attracting foreign direct investment. In this respect Sri Lanka's performance is rated on par with that of the south-east Asian countries. Interestingly, it is often argued that Sri Lanka's proximity to the large Indian market, apart from the liberal incentive structure that the policy reforms ensured, has been a major factor in attracting foreign firms.

These achievements of the Sri Lankan economy, commendable though they are, do not appear to pose any major threat of import penetration for the modern manufacturing sector in India, at least in the near future. An analysis of the manufactured exports at the disaggregate level reveals a very high level of concentration in low skill/low technology products. In fact, the share of skill-intensive items in manufactured exports of Sri Lanka has declined from 11.6 per cent in 1977 to 7.6 per cent 1992 [Wignaraja 1998]. Further, there is evidence in terms of revealed comparative advantage indices to argue that the competitiveness of Sri Lanka in skill- and technology-intensive products has been declining over time [Wignaraja 1998]. The disaggregated data on Sri Lanka's global exports presented in Table 4 conform to the above argument. The SITCs 5 and 7, which cover most of the technology-intensive items, are very poorly represented in the Sri Lankan export basket. This leaves us with tropical agricultural products and some labour-intensive manufactures, which account for more than 85 per cent of the export earnings. These areas, where Sri Lanka has proven competitive presence in the international market, could also be taken as the potential areas of Sri Lankan import penetration to the Indian market, viz, fish and its preparations, vegetables and fruits (mainly coconut, fresh and dried), tea, spices, tobacco manufactures, natural rubber, rubber manufactures, textile yarn, pearl and precious and semi-precious stones, clothing and accessories, and toys. But, unlike the Indian exporters to the islandcountry's market, the Sri Lankan exporters would be facing tough import competition in India. Significantly enough, India has well entrenched production base in all the areas identified above. More importantly, they are also prominent export items of India.

However, given the huge trade deficit with India, and the likelihood of its worsening in the context of the new treaty, Sri Lanka would be hard pressed to try and push the exports of the items identified above into the Indian market. Thus, Indian exporters of the products identified would find themselves in an unenviable situation of having to share a part of the hitherto protected domestic market with their arch rivals in the international market. Thus, the sectoral impact of the new agreement on India is fairly clear. The non-traditional manufactures especially, capital goods and chemicals, would find their market expanded to the neighbouring country. This, in the long run, as studies on economic integration suggests, might also help the producers in such sectors to reap economies of scale and attain higher competitiveness. Their exports to the Sri Lankan market would be more at the cost of third country suppliers than the Sri Lankan producers. The Indian industries which use natural rubber, copra, etc, as raw materials might also benefit because of the increased competition in the Indian market. The producers of tropical products and labour-intensive manufactures listed above, on the other hand, would tend to lose a part of their home market to Sri Lanka. The loss of control over the home market might also affect their performance in the international market.

Coming to the question of regional impact, it appears that the south Indian states would have to bear a disproportionately larger share of the adverse consequences of the new free trade treaty. South India accounts for a lion's share of both area as well as production of the crops, which are likely to face Sri Lankan competition. Their dependence on the listed tropical products, viz, tea, natural rubber, coconut, and spices is also well known to be reiterated. The importance of and the dependence on the above products would appear more dramatic in the case of Kerala. In 1996-97, coconut, rubber and tea accounted for about 66 per cent of the net-cropped area in Kerala. With the limited industrial base, these crops are also major sources of income and employment in the state. Therefore, even apparently minor changes in the above markets would have far-reaching effects on the state's economy.

Notably, the adverse impact of the treaty would not be limited to a reduction in domestic sales. International market for the products in question, like other primary commodity markets, are known for sharp price fluctuations. It was the presence of a fairly large and protected home market that used to save the Indian producers from the vagaries of international commodity market. The proposed regime of free trade with Sri Lanka would reduce the scope of government intervention and leave the producers at the mercy of market forces. The neo-liberal advice to the producers threatened by free imports from Sri Lanka would be to take on the challenge

Table 3. Commodity Composition, India's Exports to Sri Lanka

(Per cent)

	1991-92	1992-93	1996-97	1997-98
All Commodities	100.00	100 00	100 00	100 00
Cotton yarn fab madeups	12 98	11.31	12 01	13 59
Transport equipment	24 22	17.90	11 38	11.52
Machinery and instruments	4 61	5 40	6 71	7.14
Manufactures of metals	2.48	11.39	3.95	6 75
Non-basmati rice	-	2.91	11 34	6.60
Drugs and pharmaceuticals	6 86	5 50	5 19	5.79
Pulses	--	0 02	2.04	5.25
Primary and semi-finished I and S	1 79	1.45	4.67	4.11
Paper wood products	3 90	2.75	3 71	3.58
Plastic and linoleum products	0 68	0.60	2.65	3.44
Oil meals	2.25	2 60	2.18	2.83
Fresh vegetables	5 27	2 03	3 73	2 72
Inorg/org/agro chemicals	1.71	1.10	1.95	2.08
Manmade yarn fab madeups	4 39	3.05	1 83	1.81
Glass/glassware/ceramics, etc	1.24	2 88	2.30	1.81
Rubber manufactured products	0.70	0 94	1.38	1.76
Iron and steel bar/rods	1.94	2.36	0.95	1.67
Misc processed items	0.73	0.34	0.78	1.42
Marine products	1 01	0.36	1.38	1.21

Source: Centre for Monitoring Indian Economy (1998): Foreign Trade, Bombay.

of competition by reducing cost of production and enhancing productivity. The unprecedented crisis that the natural rubber producers of the country currently face would help us show how naive such arguments could be [Harilal and Joseph 1998]. The average productivity of 1,140 kg/ha in Kerala is quite high even according to international standards. But, the prevailing prices are not remunerative even to those who have higher than average levels of productivity. Cost of production, productivity, etc, are important parameters that determine prices, profitability and market shares of competitors. But, there are other important parameters also, many of which could be beyond the control of producers. The external sector policies, more specifically, those related to the international value of the currency, would have a major bearing on competitiveness and trade. This brings us back to the question of vulnerability of the external sector of partner countries. Both the countries have been depreciating their respective national currencies almost continuously over the last decade. While there were phases when the Indian rupee depreciated faster than the Sri Lankan counterpart, there were also periods when the Sri Lankan rupee depreciated faster than the Indian currency. The current phase appears to be one of deeper cuts in the value of Sri Lankan currency. We do not need to discuss its impact on the competitiveness of Sri Lankan exporters *vis-a-vis* Indian producers. We need to underline only the fact that there are many factors beyond the control of producers like the relative value of the currency, differential rates of inflation, etc, that shape their fate in the market and that the new environment of free trade with Sri Lanka would reduce the space of helpful state intervention.

In conclusion it may be reiterated that PTAs would have highly varying impact on sectors and regions within the community. There is no reason to believe that the case of India-Sri Lanka arrangement would be an exception. It is important, therefore, to foresee such effects and provide safeguards for the sectors and regions that are likely to bear the cost of adjustment. The experience of successful PTAs, especially that of the European Community, shows the importance of preparatory studies and careful planning in minimising such adjustment costs. The long preparatory phase and the communitywide debates that preceded the introduction of Euro may be cited here. It is this quality of transparency and willingness for open debates on the possible impact that are sadly missed in the context of the India-Sri Lanka treaty. It is true that there are certain inbuilt mechanisms in the bilateral agreement, like the negative lists, to take care of the problem of adjustment. But, how long can the negative lists be maintained? The Sri Lankan trade deficit and provisions of Article XXIV of GATT 1994 suggest that the period of negative lists cannot be too long. If so, what would be the measures to prepare the concerned sectors for the period beyond the negative lists? Is there any understanding on synchronisation of external sector policies? That many such important questions are left unaddressed does not augur well for the future of the new treaty.

Table 4 Commodity Composition: Sri Lanka's Global Exports

SITC	Commodity	1990 Value	1990 Per Cent	1992 Value	1992 Per Cent
	All Commodities	1912221	100.00	2490005	100.00
0	Food and live animals	626622	32.77	507548	20.38
03	Fish and its preparations	22391	1.17	30753	1.24
05	Vegetables and fruit	61327	3.21	82813	3.33
05771	Coconuts fresh or dried	38744	2.03	59936	2.41
06	Sugar and its preparations, honey	217	0.01	195	0.01
07	Coffee, tea, cocoa, spices	533835	27.92	384616	15.45
074	Tea and mate	493045	25.78	341554	13.72
075	Spices	39487	2.06	41514	1.67
09	Misc edible products	4850	0.25	5570	0.22
1	*Beverages and tobacco*	639	0.33	43327	1.74
12	Tobacco and manufactures	6145	0.32	42970	1.73
2	*Crude materials excluding fuels*	147262	7.70	128453	5.16
22	Oil seeds, oleaginous frt	7822	0.41	5711	0.23
23	Rubber crude	76890	4.02	69770	2.80
26	Textile fibres and waste	17535	0.92	17381	0.70
27	Crude fertilizer, minerals nes	9525	0.50	11355	0.46
28	Metalliferous ores, scrap	20076	1.05	7158	0.29
29	Crude animal veg mat nes	11168	0.58	13577	0.55
33	Petroleum and products	27864	1.46	13294	0.53
42	Fixed vegetable oil fat	7494	0.39	2535	0.10
4243	Coconut (copra) oil	7097	0.37	2433	0.10
5	*Chemicals, related prod nes*	19392	1.01	24550	0.99
6	*Basic manufactures*	255534	13.36	351009	14.10
62	Rubber manufactures nes	22159	1.16	32483	1.30
63	Wood, cork manufactures nes	8975	0.47	13955	0.56
65	Textile yarn, fabrics, etc	24941	1.30	82309	3.31
66	Non-metal mineral mfs nes	177313	9.27	191779	7.70
667	Pearl, precious - semi-precious stone	16243	8.49	161134	6.47
69	Metal manufactures nes	18283	0.96	22177	0.89
7	*Machines, transport equip*	54272	2.84	45535	1.83
75	Office machines, adp equip	2197	0.11	15589	0.63
77	Electric machinary nes, etc	8534	0.45	20434	0.82
8	*Misc manufactured goods*	687863	35.97	1321894	53.09
84	Clothing and accessories	642849	33.62	1200667	48.22
842	Men's outerwear not knit	128496	6.72	194273	7.80
843	Women's outerwear non-knit	235206	12.30	469375	18.8[illegible]
844	Under garments not knit	74624	3.90	138700	5.57
845	Outerwear knit non-elastic	92588	4.84	144603	5.81
846	Under garments knitted	69753	3.65	148653	5.97
847	Textile clothing acces nes	21566	1.13	43411	1.74
848	Headgear, non-textile clothing	20616	1.08	61654	2.48
851	Footwear	9931	0.52	17420	0.70
89	Misc manufactured goods nes	30712	1.61	89151	3.58
893	Articles of plastic nes	11224	0.59	11697	0.47
894	Toys sporting goods, etc	1008	0.05	32758	1.32
897	Gold, silver ware, jewellery	3642	0.19	10796	0.43
899	Other manufactured goods	12664	0.66	29791	1.20
9	*Goods not classified by kind*	79353	4.15	51551	2.07

Source: United Nations (1992). *International Trade Statistics Yearbook*, Vol 1

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Food for Profit

Madhura Swaminathan

Hungry for Profit: Agriculture, Food and Ecology edited by Fred Magdoff, Frederick H Buttel and John Bellamy Foster; *Monthly Review*, Vol 50, No 3, July-August 1998.

THIS is a special issue of *Monthly Review* devoted to questions of food and agriculture in the late 20th century. There are two major sets of themes running through this collection of articles. The first set deals with the control of transnational corporations (TNCs) over food production and the implications of growing concentration for the system of production and for the final cultivator or farmer. The second set deals with ecology and the role of modern technology, particularly biotechnology, in the quest for sustainable agriclture.

R C Lewontin gives a fascinating account of features of the capitalist development of agriculture in industrialised countries such as the US and the transformation of independent farmers into proletarians. Although there are still a large number of 'independent' petty producers, their powers of decision-making have been weakened to the point where they resemble workers. First, "farmers could make choices about the physical process of farm production, including what was grown and how much, and what inputs were to be used". Secondly, "farmers were themselves traditionally potential competitors with the commercial providers of inputs because they could choose to produce seed, traction power, and fertilisers themselves". Today, the agri-food business industry has taken away these choices from the farmers. Thus, even though they are technically the owners of the means of production such as land, farmers have "lost control over the labour process" and they are also alienated from the product, as they are not free to sell it as they wish. To put it differently, the farmer is in effect similar to a "putting-out worker characteristic of the first stage of capitalist production". This is illustrated by the experience of contract farming in the production of broiler chickens in the US. Many small farmers produce chickens under a four-year contract for Tyson Farms. The company provides the chicks, the feed and veterinary services. All decisions about inputs and farming practices are taken by Tyson and the farmer guarantees that he will not use any "feed, medication, herbicides, pesticides, ...or any other items except as supplied or approved in writing by the Company". Such a chicken farmer has little control over buying, selling or the process of transformation.

William Heffernan also deals with the spread of monopoly capital into agriculture. This process has been accompanied by horizontal integration at different stages of processing and distribution and the outcome is tremendous concentration of ownership and control in the production, processing and distribution of certain major food commodities. The four largest commodity processing firms (respectively) control 55 per cent of broiler production, 87 per cent of beef slaughter, 62 per cent of flour milling and 76 per cent of soyabean processing in the US. There is also a high degree of vertical integration. Cargill, for example, "is one of the three major global traders of grain, the second largest animal feed producer and one of the largest processors of hog and beef in the world". ConAgra is a major food firm with large interests in different stages of the food chain ranging from seed and fertiliser production, to feed production, broiler and meat production and 'TV dinners and pot pies'. These transnational companies are interested solely in the profits of their stockholders and neither in sustainable agriculture nor in the livelihoods of farming communities across the globe.

On the second theme, there is an excellent discussion of the "social, technical and ethical consequences" of biotechnology in agriculture in a paper by Gerad Middendorf, Mike Skladany, Elizabeth Ransom and Lawrence Busch. Biotechnological innovations modify two of the natural constraints of agricultural production, namely, the reliance on time and space. "The ability to produce cocoa in a laboratory", for example, can "decouple the manufacture of these foods from land-based production systems" and result in "economic collapse for populations in developing countries". What is of concern is that much of the research on biotechnology is being undertaken in private laboratories with very little public control or input. Given the enormous implications of research in biotechnology for agriculture and the livelihoods of millions, it is very important, as the authors argue, to link research with public policy and debate. Public access to information and public debate on technology policy is one way of democratising control over research. We need to develop systems of surveillance and safety and norms for the application of biotechnology.

Miguel Altieri points out that the first wave of environmental problems in agriculture were a consequence of increasing crop specialisation and the extensive use of inputs such as pesticides and chemical fertilisers. These problems included soil erosion, depletion of nutrient reserves, pollution of water, and pest resurgence. The second wave of environmental problems, however, stems from the introduction of biotechnology in agriculture. Altieri recognises that biotechnology can have beneficial impacts. However, under the control of multinationals, research in biotechnology is likely to be associated with environmental risks. The need to capture the market with a single product can lead to genetic uniformity and threaten genetic diversity. The incorporation of genes for insect toxins (such as from the bacteria Bacillus thuringiensis or Bt) into the plant variety can have unintended consequences (the toxin may be incorporated into the soil or have potential negative reactions on the other organisms). Ultimately, greater social control over technology will be required to generate an economically viable and environmentally sound agriculture.

The recent Cuban experience provides an interesting example of the shift away from capital-intensive agricultural technology. Peter Rosset documents how alternative agriculture was taken up in Cuba in response to the crisis of the collapse of the Soviet Union. In 1989-90, when trade with the Soviet bloc collapsed, there was a crisis in the import of food as well as fuel, machines, chemical inputs and all the other technological requirements of an advanced agriculture. The government started an innovative programme to substitute chemical inputs with biological inputs, for example, to shift from chemical pesticides to biopesticides, and from chemical fertilisers to organic fertilisers. The new technology required a new scale of production and the system of production based on state farms was also

reorganised and smaller management units were created. By 1995, the new strategy had helped Cuba overcome its food shortage.

In India, we are not unfamiliar with the problem of hunger amidst plenty. Janet Poppendieck's article argues that in the US, too, hunger exists amidst plenty and amidst waste. In recent years, there has been a lot of popular moblisation around hunger in the US as witnessed by the growth of soup kitchens, food banks, food pantries and the like. Ironically, as private charity has expanded, public commitments to the poor – public support and welfare – have shrunk. While the immediate solution lies in 'feeding the hungry', longer-term solutions to the problem of hunger require us to deal with the underlying problems of distribution.

This special issue also has papers by William Hinton on land reform in China, by Ellen Wood, J B Foster and Fred Magdoff on historical issues, and papers by Philip McMichael and Elizabeth Henderson on food politics.

Cultural Reorientation: A Northern View

G P Deshpande

Cultural Reorientation in Modern India edited by Indu Banga and Jaidev; Indian Institute of Advanced Study, Shimla, 1996; pp 419, Rs 500.

THIS massive volume is a collection of papers read at a seminar organised by the Indian Institute of Advanced Studies, Shimla, in 1994 or 1995 (the date of the seminar is not given in the book). The book was published in 1996. There are 24 essays brought together in the volume. A large number of them relate to Punjab. Two discuss music. One discusses modern art, while one discusses Telugu cinema. Almost all the essays follow the pattern of a historical narrative. How did things happen the way they did is their primary concern. Essays on Punjab are full of information, at times also insights. One is not certain if such a heavy emphasis on Punjab was altogether necessary and unavoidable. To make sense of so much material on Punjab in the company of a solitary article on Telugu cinema or a discussion of Thumri is not easy, to say the least. The present reviewer has read the book but clearly is not in a position to comment on all the essays. The comments would be necessarily of a general nature. It is only in the case of a few essays that one can possibly go into the details.

It is necessary to say that it is a very commendable exercise that the process of cultural reorientation of north Indians (the emphasis of the book is clearly on north India), an article on the Telugu cinema notwithstanding, has been looked at closely and with an insider's concern. The 'northern' view comes across very clearly when the question of why movements like Arya Samaj did not arise in the south is not even asked. Or in an otherwise scholarly and extremely well argued presentation, Javeed Alam sees 'Gandhi vs Savarkar' as a good example of "oppressed versions of insertion into and articulation of tradition". Now it is more than doubtful if such a view of Savarkar who dismissed the Srutis and Smritis as valid, let alone sacred, texts is justified by anything that he wrote or said. Interestingly, not only Alam's essay but quite a few others completely ignore the low caste interpretation or subversion of tradition. All the versuses' that Alam enumerates are, in a manner of speaking, upper caste or 'Savarna' versuses. This may be the reason why this enormous volume does not even once refer someone like Phule.

Alam's essay sits uncomfortably with Satya P Gautam's essay on 'Cultural Dilemmas in Colonial Societies'. As no effort is made even in introduction to reconcile the positions of different essays in order to arrive at an understanding of 'cultural reorientation', this is hardly surprising. The editors themselves must be aware of this limitation. Gautam holds the Congress guilty of "using caste and communal identities for the mobilisation of the masses" during the colonial period. One would have thought that Congress especially under Gandhi avoided precisely that. In fact in Maharashtra and Tami' Nadu there were caste-based mobilisations against the Congress which were more than blessed by the British. Equally, Gautam's statement that "we do not have a sense of our traditions apart from how they have been discovered or invented and projected by the western culture" is questionable Justice Ranade's or Bhandarkar's view of religion was not invented by the western culture. Their return to 'Varkari Sampradaya' was in fact an attempt to project a non-brahmanical tradition of our religious thought. It is one of our cultural dilemmas to place the non-brahmanical orientation of our culture which has a continuous tradition from the Bhakti period to the times of Phule and Ambedkar in a proper historical perspective. This volume is yet another evidence of the enormity of that problem resulting into the discussion of almost exclusively high caste (brahmanical) perspectives. We are face to face with three rather than two Indian orientations. One is the traditional brahmanical, the other is the non-brahmanical. The third orientation has been very neatly described by Vidya Rao in her essay on the Thumri easily the best of the collection. She talks of cultural forms "shaped at a time when Indian history, culture and social relationships were being reformulated". No account of cultural reorientation would be complete without reference to these three orientations. Most essays do not take this three-fold division into account.

In a space of a short review one cannot do justice to a book which has collected together 24 contributions. One may conclude this review with the comment of one of the two Hindi contributions, although the present reviewer's competence in Hindi is limited. M Pandey has not been able to decide whether to adopt a polemical mode or discursive mode for his argument. Consequently, his discussion of the relationship between the ruling classes and culture has tended to become a collection of declamatory statements. One suspects that he has an argument to make. His polemics do not let him do it in full. His analysis of Tulsidas, interesting in itself, deserved a more detailed and non-declamatory treatment.

Lastly, one must also ask a question of the editors. There is nothing wrong in having presentations in Hindi or another Indian language. But is it such a difficult thing to have them translated in English and presented in what is in fact an English language volume?

Trade and Empire

Tirthankar Roy

From Prosperity to Decline: Eighteenth Century Bengal by Sushil Chaudhury; Manohar, New Delhi, 1995; pp xvi + 377, Rs 500.

FROM the last quarter of the 18th century, Bengal was the chief partner of the European companies' Asiatic trade About a century later, the trade was in decline and Bengal was effectively under British rule. Sushil Chaudhury, while presenting a richly detailed account of the trade itself, argues that it was Bengal's 'prosperity', of which trade and industry were contributory factors, which encouraged the Europeans to conquer Bengal. In turn, the conquest led to the region's economic decline. In suggesting this, Chaudhury dissents with conventional views where the conquest tends to be attributed to chance, prior economic crisis, or political anarchy.

The argument illustrates one of the many reasons that make European trade in India a subject of enduring appeal, and full of unanswered questions even after decades of high-quality scholarship. The book effectively brings out this openness in the field by pointing out a number of important aspects not adequately researched before. However, the main strength of the book lies not in its polemical content, but in the extensive and diverse raw material from which its arguments were developed The book's descriptive content bears the mark of authority and many years of research and engagement in the field. All of these qualities contribute to making this work a major reference on the subject.

The opening chapters of the book (1-3) set out the background with a political history, broad outline of the European companies' trading activity in the region until the mid-18th century, and a description of the critical role of textiles in foreign trade. Chapters 4 and 5 describe evolutions in commercial organisation through this period. An important story here is the rise and decline of the institution of 'brokers', powerful intermediaries between the European firms and textile producers, in favour of paid agents of the firms. The broker arose, and disappeared, due to problems of a kind known to economists as 'asymmetric information and consequent hazards. Usually, the transition is seen by historians to mean reduced competition and increasing oppression of the buyers upon the suppliers. Chapters 6-8 deal with the main traded items, cotton and silk textiles. Chapter 9 takes up two minor tradables, saltpetre and opium. A distinctive feature of these chapters is the detail with which production organisation is discussed, including the profile of the producers both rural and urban, wages and earnings, location of industry, and the wide array of merchants and financiers engaged in the business of exporting Bengal products out of Bengal. Chapter 10 takes up the widely debated question of price movements, and chapter 11 returns to interpretations of political history.

At several points, the book makes significant original arguments. The following are some examples The decline of the brokers has been seen in other studies as a result of the European firms' decision not to use the services of local merchants, and thus to signify a decline of mercantile enterprise generally. Chaudhury disputes this view, and suggests that the merchants themselves chose not to take part in the institution. It is generally believed that prices in Bengal – of both tradeables and non-tradables – were subject to a steady upward pressure after the 1720s, and especially in the 1740s. This is seen as an effect of European demand, the bullion import as a result, and economic dislocation caused by Maratha incursions in Bengal. Chaudhury, from a painstaking reconstruction of price statistics, concludes that no secular and general increase in prices of foodgrains or the 'contract prices' of textiles was in evidence. In turn, the finding questions the notion of a general dislocation and crisis in pre-1757 Bengal. Perhaps the most significant new emphasis in the book is on the role of 'Asian merchants' and overland trade in this period. These groups were the most important export merchants of Bengal prior to the European ascent. Chaudhury argues that they remained important, in fact they exported greater value than the Europeans in the mid-18th century. This point has not been made before in the literature. On the whole, these reinterpretations in the book create a more diverse concept of mercantile enterprise operating in Bengal, qualify the importance of European trade for the region, and create a different image of the regional economy in the period, than are currently available.

Having said that, Chaudhury at times seems to overstate his findings. The central thesis, Bengal's journey from 'prosperity' to 'decline', is itself an example. It is implicitly assumed, and Chaudhury is not alone in making such an assumption, that foreign trade created prosperity in Bengal. But what is the evidence? Wages and earnings of weavers in 18th century Bengal were, by the book's own evidence, low. Some interesting data cited on pages 174-75 suggest that the share of export in cloth production in the mid-18th century was around 20 per cent. The share of textiles in employment could not have been very much more than 5 per cent. Given that textiles represented more or less the only important tradable from Bengal, the share of export in the region's income was realistically around 1 per cent. This is very small ratio indeed to believe that trade had great transformative potential. In reality, cloth export was a small and exceptional trade superimposed on a primarily non-commercial subsistence economy. On the book's own evidence, 18th century Bengal was a region with a progressively weak government, almost no commerce without patronage, a chaotic currency regime and high interest rates, and a 'capital market' virtually under the thumb of one banking house. Fraud, power and oppression were inseparable from Bengal's foreign trade at any time in its pre-modern history. These features do not go well with a system where markets can generate overall 'prosperity'.

But this objection is largely semantic. That the progressive consolidation of British rule in Bengal changed the nature of economic transactions in textiles, and made the terms adverse for the suppliers, is evident. Chaudhury has illustrated this idea with a work that should become, on the strength of the labour and the learning that went into it, a major presence in the field of early modern trade and industry.

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REVIEW OF AGRICULTURE

Emerging Crisis in Punjab Agriculture

Severity and Options for Future

Ramesh Chand

As is often the case, agricultural diversification is being suggested as the future strategy to address the problems confronting Punjab agriculture. The present paper, based on empirical evidence, examines the scope of agricultural diversification by analysing various dimensions of the suggested alternative. It discusses prospects of the diversification alternative and its implication on employment, income, natural resources and ecology. An attempt is also made to propose future strategy for agricultural and economic development of Punjab in the post-green revolution period.

THE impressive growth rates achieved in agricultural production in Punjab are well known and have been widely acclaimed as a success of the agricultural strategy centred on the green revolution technology. There is a widespread belief that the 'Punjab pattern of agricultural development' and green revolution technology are the best route for agricultural development in other parts of the country. The general impression about Punjab agriculture is that it is highly productive, continues to have vast potential for growth, and provides good farm income to producers. This impression might have been true during the early days of green revolution; recent reports reveal disturbing trends about Punjab agriculture and the future of green revolution in the state. Productivity of rice and wheat, the major crops of the state which occupy about 70 per cent of its gross cropped area, is reported to have approached a plateau and farm incomes are reported to be stagnant and insufficient for a decent living. There is a growing realisation about the degradation of land, water and environment due to the current pattern of agricultural production and its sustainability is under question. Though some concern has been expressed by researchers about disquiet aspect of Punjab agriculture during the past five-six years, these were not paid serious attention by the state till recently. However, the rising discontent among the farm community due to their failure to get aspired farm income, and problems like declining water-table in some part, waterlogging in other parts, soil degradation and environment pollution have reached such proportion as to force the state government to make serious efforts to address these problems.

As a step in this direction, Punjab Agricultural University, Ludhiana, at the instance of the state government, organised a two-day brain storming discussion on October 23-24, 1998, to discuss the conditions of farmers and farming in Punjab and to chalk out future strategy for agriculture. The meeting was attended by some economists from the state and outside, agricultural experts of Punjab Agricultural University and the state government officials.

The agenda paper discussed during the meeting made startling revelations about the conditions of farmers and sustainability of current agricultural strategy.[1] Some of the assertions made in the paper which point to the underneath crisis in Punjab agriculture are:

(1) Economic condition of vast majority of farmers has deteriorated and cannot be improved with the existing cropping system and technology which has already been exploited to 75 per cent potential.

(2) Family income of about 47 per cent of the farmers from crop plus dairy is lower than the income at lowest pay scale for unskilled worker in the state. The paper further says that about 20 per cent of farming population is below the poverty line income.

(3) The water-table in the central Punjab is going down at the rate of 0.23 cm per annum. If this decline continues for the next 15 years, about 2 lakh centrifugal pumps will need to be replaced by submersible pumps which at current prices will cost Rs 2000 crore or about Rs 5,000/hectare of net sown area.

(4) In some part water-table has risen by four-five metres during 1984 to 1994 and led to problem of salinity and waterlogging.

(5) Widespread deficiency of micronutrient has appeared in the soil and there is increase in weed infestation, pest and disease outbreak.

(6) Burning of combine harvested rice straw is resulting in serious environment pollution.

Though there was some disagreement among the participants about estimates of farm income, everyone felt the necessity for urgent action and suitable strategy to put Punjab agriculture on a new growth path which is sustainable from natural resource point of view and which provides reasonable income to sustain interest in farming.

Whenever there is a problem related to agricultural production, income or employment, agricultural diversification is most often suggested as the alternative. Accordingly, the agenda paper also suggested diversification through vegetables, fruits, dairying, etc as future strategy to address the problems confronting Punjab agriculture, without analysing various dimensions of suggested alternatives. The present paper, based on empirical evidence, examines the scope of agricultural diversification to address the problems confronting Punjab agriculture. It also discusses prospects of various diversification alternatives and analyses their implications on employment, income, natural resources and ecology. An attempt has also been made to propose future strategy for agricultural and economic development of the state in the post-green revolution period.

The paper is organised into six sections. The first section discusses the growth rate in agricultural output and per capita income in the recent period compared to the earlier period. Section II compares performance of various crops and analyses prospects of diversification in the crop pattern. Possibility of diversification through dairying are examined in Section III. Causes of unemployment in the state and scope of employment generation through diversification and other strategies are explored in Section IV. Impact of wheat and paddy cultivation on natural resources like water, land and environment and remedies to check their degradation are discussed in Section V. The last section contains policy suggestions

and discusses strategy to meet the current challenges.

The study is based on secondary data at state level and micro investigations at grassroots level based on field survey of 300 farm households in Ludhiana district which is agriculturally most advance district of the state.

I
Growth Rates in Output and Income

The growth rate in agricultural and total net state domestic product (NSDP) and per capita income for the Punjab state and for the whole country during the 1980s and the 1990s to examine the economic progress in the state in the recent period are presented inTable 1. The growth rate of NSDP agriculture followed a sharp decline during the 1990s compared to the decade of 1980s. It is the first time since the onset of green revolution that growth rate of agricultural output in Punjab is lower than the all India level. When the current growth rate in agriculture income (NSDP) is netted out for population increase to arrive at per capita income, the growth rate comes out to be less than 1 per cent.

Similarly, the performance of total economy is also found to be deteriorating and below the national average as is evident from the growth rates in total NSDP and per capita income (*vide* Table 1). This is a depressing picture for the state which has enjoyed much higher growth rate than national average for a long time.

II
Cropwise Performance and Substitution Possibilities

Several indicators can be used to compare performance of various crop alternatives and to get an idea about the possibility and consequences of diversification of existing crop mix. Our interest is to study the performance in terms of value productivity, profitability, employment and impact on environment and natural resources. Detailed information on resource use, costs, returns, value of output and other relevant aspects for the important crops grown at the sample households is presented in Table 2 which can be used to compare inter-crop performance and to reveal impact of crop substitution on profitability, resource use and environment, etc.

Impact of cultivation of different crops on soil health can be captured to some extent by comparing use of inorganic fertiliser and weedicides in these crops as these inputs are said to be causing problems like soil chemicalisation and nitrate pollution. Among the crops of rabi season, use of inorganic fertiliser is highest in potato cultivation (108 kg NPK/acre) followed by wheat with 78 kg of plant nutrients. Requirement and application of plant nutrients is quite high in vegetable crops but this requirement is being met mainly from farm yard manure. In wheat crop, small expenditure on micro nutrients was also incurred Use of herbicide/weedicides has been quite common in wheat cultivation.

Application of plant protection chemicals, which has been used to indicate the impact on environment pollution, is nil in wheat crop, whereas, potato, rapeseed/mustard and rabi vegetables involve frequent use of such chemicals. Labour employment is 307 hours/acre in potato and 255 hours in other vegetable crops of rabi season. Per acre labour use in wheat, barley and mustard cultivation is around 127 hours. Coming to water use, sample farmers applied 8 irrigations to potato and vegetables and 5-6 irrigations to other crops. Value productivity and net return from vegetable crops is significantly higher than the competing crops. Potato and wheat rank second in productivity and net returns respectively.

Among kharif crops, highest use of inorganic fertiliser is in paddy (106 kg NPK/acre) followed by vegetable crops (77 kg). Minimum application of NPK as well as farm yard manure is reported in moong crop. Micro nutrients were applied only to paddy crop. Weedicides use is quite common in paddy and cotton crops. No chemicals were used for weed control in pulses. Highest human labour use was reported in vegetable cultivation which provides 539 hours employment per acre. Cotton ranks second with 276 hours and paddy enjoys third position with 248 hours of labour use per acre. As was the case with rabi season, vegetable cultivation gave highest output and income in kharif season also. This was followed by paddy.

Sugarcane is another important crop which is often suggested as an alternative to reduce domination of wheat and paddy in the state. Since sugarcane is an annual crop and yields output once in a year, its performance was compared with the performance of wheat-paddy rotation. Per acre labour use in sugarcane is 598 hours compared to 374 hours in wheat and paddy. On revenue side, one acre of sugarcane at the sample farms provided gross return of about Rs 11,000 which is Rs 3,500 lower compared to wheat-paddy rotation. Similarly, net return from sugarcane is 15.4 per cent lower compared to the combined net return from wheat and paddy crops.

Besides profitability, risk plays an important role in the choice of crops. Wheat and paddy exhibit lowest instability in their yield during the last two decades (vide Table 3). Because of strong and assured government price support, price instability is also lower in wheat and paddy. Consequently, gross returns from wheat and paddy fluctuated only by 10 and 19 per cent from the trend line, respectively, compared to 29 to 44 per cent instability in the other crops (Table 3).

The results presented in the preceding paragraphs show that the performance of wheat crop, at prevailing inputs and output prices, is better compared to other crops of rabi season in most respects. Use of plant protection chemicals, which are considered harmful for environment and for human health, is almost nil in wheat crop, whereas other crops capable of competing with wheat require heavy doses of plant protection chemicals. Water requirement of wheat is also quite low compared to potato and vegetables. No doubt, weedicide use is highest in wheat crop but this is not due to crop's intrinsic requirement; there are economic reasons for it and the same function can be performed by human labour. Among kharif crops, vegetable crops give significantly higher profitability compared to paddy. Besides, vegetable crops require 1/4th irrigation compared to paddy. However, compared to paddy, vegetables involve very high use of plant protection chemicals. Thus, it can be concluded that no crop alternative is superior to wheat and paddy in all the aspects and any change in crop pattern away from wheat and paddy would have mixed impact on crop income and ecological and environmental variables. If on one hand any change in crop mix reduces degradation of soil and mitigates water scarcity, on the other hand it results in environmental pollution through use of

TABLE 1. TREND GROWTH RATE IN NET DOMESTIC PRODUCT AND PER CAPITA INCOME IN PUNJAB AND INDIA

(*Unit Per cent/annum*)

	1980-81 to 1989-90	1990-91 to 1995-96
Net state domestic product – Agriculture/		
Punjab	5.19	2.89
India	3 05	2.93
Net domestic product – total		
Punjab	5 30	4.17
India	5 18	5.22
Per capita income:		
Punjab	3 43	2 28
India	3 04	3.39

plant protection chemicals.

Suggestions have also been made to diversify crop pattern in the state through fruit crops, and concerted efforts have been made in this direction in the past two decades. These efforts have met very limited success and the area under fruits has not reached even half a per cent of total cropped area. Though demand-side factors for promoting horticulture in the country are favourable the supply-side factors in Punjab are not promising. The state does not enjoy the natural (climatic and soil related) advantage in commercial production of quality fruits. Except for kinnow, quality of most of the fruits produced in the state remains inferior to the quality of fruits from other major producing regions. For example, grapes, mangoes, oranges, pear, plum produced in Punjab cannot compete in the market with grapes from Maharashtra and Karnataka, mangoes from Uttar Pradesh (UP), Andhra Pradesh, Bihar and Maharashtra, oranges from Nagpur region and pear and plum from the hill region.

III
Diversification through Dairying

As green fodder is the main input for commercial dairy, its expansion, through the increase in area under green fodder, results in diversification of crop pattern. Though per capita production of milk in Punjab is well above the level required for a healthy diet, the availability in most other states and for the country as a whole is quite low. There is a gap of about 39 per cent between per capita milk production and the minimum level (250 grams) of milk recommended by the Indian Council of Medical Research. Similarly, despite higher dependence of Indian population on vegetarian diet, per capita milk availability between India and the rest of the world has a gap of 53 per cent. These figures underline the need and scope for substantial increase in milk production in the country.

In addition to the need to fill existing gap, future demand for milk would also increase due to population growth and rise in per capita income, as the income elasticity of demand for milk is positive and close to one (1.15 for rural and 0.99 for urban population) [Radhakrishna and Ravi 1992].

Punjab state enjoys the advantages like sufficient availability of green fodder and an efficient system of rural transport and road network to promote commercial dairy. The scope for large scale expansion of dairying is also evident from the fact that to bridge 1 per cent gap between availability

TABLE 2: INPUT USE, OUTPUT AND RETURN PER ACRE FROM IMPORTANT CROPS AT THE SAMPLE HOUSEHOLDS, IN LUDHIANA DISTRICT, 1992-93.

Particulars/ Category	Rabi Season Crops					Kharif Season Crops						
	Wheat	Barley	Mustard	Potato	Vegetables	Paddy	Maize	Moong	Cotton	Vegetables	Arhar	Sugarcane
Material inputs												
Seed/Seedling cost (Rs)	166	150	33	1230	379	85	60	134	89	237	100	871
Farm yard manure (Kg)	423	0	0	0	8330	1346	1569	35	921	1415	148	3924
FYM value (Rs)	32	38	0	0	738	106	145	58	75	86	15	305
Fertiliser NPK (Kg)	78	35	20	108	23	89	44	7	32	77	14	49
Fertiliser value (Rs)	660	298	150	764	192	717	323	27	233	519	80	338
Micronutrient value (Rs)	6	0	0	0	0	47	0	0	0	0	0	0
Weedicides (Rs)	10(.	3	5	0	0	104	9	0	41	17	0	0
Plant protection chemical (Rs)	0	0	57	124	58	3	13	41	299	630	0	40
Irrigation (No)	5	6	5	8	8	40	10	4	7	10	4	12
Irrigation cost (Rs)	231	191	155	843	107	1152	179	141	255	223	156	717
Other input costs (Rs)	2	0	0	5	89	12	38	0	1	0	1	4
Labour use												
Family labours hrs	71	72	76	77	112	143	92	76	135	226	68	195
Hired labours hrs	54	55	51	230	143	105	53	48	142	314	18	403
Wage rate Rs/day	50	42	34	45	45	36	41	36	32	31	41	25
Total human labour hrs	126	128	127	307	255	248	145	124	276	539	86	598
Bullock labour hrs	3	2	5	0	3	3	18	5	8	6	6	3
Bullock wage Rs/hr	19	16	13	17	15	13	22	13	12	27	15	9
Machine use												
Own machine cost Rs	164	163	71	41	24	123	43	78	39	108	49	139
Hired machine cost Rs	213	41	0	20	0	248	214	114	175	30	9	41
Total machine cost Rs	377	204	71	61	24	371	257	192	214	138	78	180
Fixed costs (Rs)												
Depreciation	190	184	181	199	212	190	187	196	188	191	191	185
Interest on fixed capital	245	236	231	249	272	242	263	262	256	250	249	234
Interest on working capital	88	52	32	152	102	135	83	39	76	206	30	138
Land rent	1401	1007	750	1786	5167	1494	508	847	905	1822	612	2418
Output												
Main product (Kg)	1741	1374	405	8120	2583	24/7	633	352	412	5407	320	19384
Farm gate price (Rs/qtl)	329	352	933	110	1000	299	359	1200	1020	168	936	52
By-product (Kg)	2414	768	103	0	0	599	810	0	1004	0	427	3163
Value of main and by-product (Rs)	7006	5037	3748	8932	25833	7471	2538	4237	4526	9111	3058	11028
Imputed cost of unpaid items (Rs)	707	620	463	476	1730	905	1053	538	751	1231	505	1091
Cost of cultivation (Rs)												
Cost A1	2263	1449	970	4674	3028	3430	1962	1106	2135	3622	838	4082
Cost B1	2508	1685	1201	4923	3300	3672	2225	1368	2391	3872	1087	4316
Cost B2	3910	2692	1951	6709	8467	5167	2733	2215	3296	5694	1698	6522
Cost C1	2957	2066	1525	5358	3879	4311	2697	1708	2936	4746	1433	4930
Cost C2	4358	3073	2275	7144	9045	5805	3204	2556	3841	6568	2044	7136
Net return (Rs)												
Over cost A1	4743	3588	2779	4258	22806	4041	577	3131	2390	5489	2221	6946
Over cost B1	4498	3352	2547	4009	22533	3799	313	2869	2135	5239	1972	6712
Over cost B2	3097	2344	1798	2223	17367	2304	–194	2022	1230	3416	1360	4506
Over cost C1	4049	2971	2223	3574	21955	3160	–158	2529	1590	4364	1626	6098
Over cost C2	2648	1963	1473	1788	16788	1666	–666	1682	684	2542	1014	3892

and minimum milk requirement in the country about 4 per cent increase in milk output in Punjab would be needed, and India has about 40 per cent gap between the availability and minimum requirement of milk. Therefore, both the demand as well as supply side factors seem quite favourable for expanding dairy industry in Punjab.

Expansion in dairy activity, besides resulting in diversification of crop pattern due to shift in area in favour of fodder crops, would be beneficial in improving soil health through increased availability of organic manure. An exercise was done, using the sample information, to study what would be the impact of expansion of dairying activity on the crop pattern (Table 4). Green fodder requirement of an average dairy unit[2] consisting of 3.21 in-milk, 3.51 dry and 1.01 heifers was met from an area of 1.48 acres in kharif and 0.97 acres in rabi season. Assuming no change in productivity, breed mix and age composition of dairy animals, raising milk production by say 'X' per cent would entail same 'X' per cent increase in the number of dairy animals (dry and in-milk animals and heifers). This way, 10 per cent increase in milk production would result in expansion of area under fodder from present level of 21.23 per cent to 23 per cent in kharif and from 13.94 per cent to 15.16 per cent in rabi season. Since area under the other crops is already too small, the shift in favour of fodder crops would come from wheat and paddy crops. Our estimates reveal that meeting 1 per cent of the milk deficit in the country from Punjab would reduce share of paddy and wheat in net cultivated area by 1.09 and 0.60 per cent, respectively.

IV
Agricultural Diversification and Employment

It might look somewhat strange that despite high growth rate in economy and agricultural productivity, unemployment reported in Punjab is no less than rest of India. According to the NSSO estimates, unemployment rate in Punjab during 1987-88, based on usual status, ruled 2.9 and 7.4 per cent for male and female workforce as compared to 2.8 and 3.5 per cent at all India level, for rural areas. This raises the issue that when lakhs of migrant labourers from Bihar, east UP and some other states find employment in agriculture sector in Punjab then why there is high rate of unemployment among its own rural workforce?[3]

If we look at the possibility of creating more on-farm employment in the state it is found that attractive crop alternatives are available to do so (Table 2). Similarly, among non-land based activities, there is tremendous scope to raise employment by shifting area from wheat and paddy to fodder crops and by raising dairy on the same area. Results of our field study show that labour employment in dairy, that can be raised on fodder from a given area, plus labour use in fodder production is 7.3 times the labour use in paddy and wheat cultivation on the same area [See Ramesh Chand 1996, ch 8 for more details]. However, the relevant question is: would this type of employment generation reduce unemployment for the farm youths in the state? The answer seems no!

Unemployment of farm youths in Punjab is not due to lack of work opportunities in farm sector[4] but due to their strong preference to go for non-farm jobs. Though employment opportunities would be available at other farms, workers of farm families not having enough work opportunities at their own farms would generally not work as labourers at other's farms due to social stigma and taboos. This is the reason that lakhs of migrant labourers find work opportunities in Punjab agriculture while some of its own workforce remains unemployed. Second, during the past two decades literacy in Punjab has improved sharply and the young generation is not only by and large literate but also having secondary or higher education. There is a serious problem with the educated youth, almost throughout the country, that they shun manual jobs like those in agriculture and look for white collar employment [Vaidyanathan 1994]. Also, agricultural jobs are considered low paid compared to other sectors. Third, the adult workforce in Punjab possesses improved human capital and entrepreneurial and managerial skills, and young people look for challenging work opportunities to apply their energies. Traditional crop production does not offer any challenge and satisfaction to them. Fourth, improved income, higher interaction with market and exposure to electronic media and urban lifestyles have highly influenced the young generation in preferring consumerism and modern style of living. Therefore, the youth search for well paid jobs. And lastly, due to high level of income, Punjab society can afford to keep some of the family members unemployed for a fairly long period with the hope for obtaining better jobs some day.

It is thus clear that the solution for unemployment problem in the state lies in creating jobs in non-farm sector. How can this be done? The standard answer has been that the state should go for industrialisation at a faster rate. However, the past experience shows that expansion of conventional industries in Punjab did not do much to offer jobs to the rural youths from within the state. If one examines the profile of industrial workers in Punjab it would be observed that industry has preferred manual labour from outside the state and workers for non-manual jobs from the state's urban population. The reasons for preference for outside workers are: (1) these workers are available at a lower wage rate compared to local labour, (2) outside labour has weak political clout

TABLE 4. IMPACT OF INCREASE IN NUMBER OF DAIRY ANIMALS ON THE CROP PATTERN AT SAMPLE FARMS

Average number of livestock /household		
Bullocks		1.01
In-milk buffaloes		2.65
Dry buffaloes		2.93
In-milk cows		0.56
Dry cows		0.59
Heifers		1.01
Area under green fodder(acres)	kharif	1.69
	rabi	1.11
Area under green fodder to meet requirement of dairy animals (acres)	kharif	1.48
	rabi	0.97
Share of existing area under fodder in the cultivated area (per cent)	kharif	21.23
	rabi	13.94
	average	18.13
Share of fodder crops in cultivated area (per cent)assuming 10 per cent increase in milk output	kharif	23.09
	rabi	15.16
	average	19.72
Change in share of fodder crop in cultivated area due to 1 per cent increase in milk production (percentage points)		0.88
Impact of meeting 1 per cent national milk deficit through increased milk production in Punjab on the crop share in net crop area (per cent)	Paddy	-1.09
	Wheat	-0.60

TABLE 3: INSTABILITY IN YIELD, GROSS RETURN AND FARM HARVEST PRICE OF DIFFERENT CROPS IN PUNJAB, 1972-73 TO 1991-92.

	Paddy	Maize	Cotton	Wheat	Rapeseed/ Mustard	Potato	Sugarcane
Yield	10	20	26	7	7	21	27
Return	19	33	41	10	29	44	40
Price	21	23	27	8	31	31	39

Note: Instability in the variable say (Y) is computed by taking standard deviations of $[\ln(Y_t/Y_{t-1})]$, which shows average deviation from the trend line $\ln Y_t = b_0 + b_1 T + e_t$.

and low bargaining power, (3) in case of industrial dispute it is easy to deal with outside labour compared to local labour. Workers from the urban areas are preferred for non-manual jobs because they mould themselves easily into industrial and business/corporate culture and they belong to similar cultural background as the industrialists, top executives and management. Secondly, the rural youths do not possess the special skill useful in industry nor do they have aptitude to work in conventional industries owned by private sector. Moreover, share of industrial employment in total employment is very small, which is easily filled by the manpower from urban pool.

Rural youth possesses some advantage over their urban as well as migrant counterparts in agro-processing industries which involves some dealings with rural people, like procurement of raw materials like milk and sugarcane from rural producers, or where some knowledge about the farm produce is useful in processing and other activities. Accordingly, milk and milk product industry, sugarcane industry, vegetable and fruit processing industries, agricultural raw material using industry are some examples where rural youths can have some advantage in securing employment.

Punjab has excellent network of metalled roads and transport and reasonably good industrial infrastructure throughout the state. These factors are quite useful for spatial distribution of industrial units, so that the workers do not have to migrate from their rural habitats. Therefore, industrial policy of the state should be to encourage small units in semi-urban or rural locations where rural youth can work as a whole-time or part-time worker while staying at their native places.

V
Agricultural Diversification and Natural Resources

In this section we look at various aspects of natural resources' degradation and over-exploitation, and examine how diversification of agriculture would affect these resources and environment.

Land degradation: Progress of green revolution technology, till early 1990s, rather than causing increase in waterlogged and saline soils, has been associated with steady decline in the degraded land. Area under barren and unculturable lands has decreased from 208,000 hectares in pre-green revolution period to 72,000 hectares in post-green revolution period. Between 1965-66 and 1991-92, saline and waterlogged area has been reduced to 1/4th and culturable wastes declined from 83,000 to 36,000 hectares. *According to Chopra (1990) installation of a large number of tubewells in the 1970s and early 1980s* provided vertical drainage which helped in limiting the extent of waterlogging and salinity. The second factor for decrease in land degradation is the profitability of green revolution crops which made it economically attractive to reclaim degraded land.

Of late, the situation has changed dramatically. The south-west region, particularly Faridkot district, where cotton was the major crop, has been worst affected by rising water-table, and thousands hectares of land have become waterlogged. Other kind of land degradation attributed to intensive cultivation of wheat and paddy is nitrate pollution and excessive chemicalisation of soils and rising deficiency of micro nutrients [Chopra 1990, 1993]. Since soil is a living matter, increase in application of chemicals beyond certain level is injurious to soil micro-organisms which are very essential for maintaining soil structure and basic fertility. This problem is not irreversible and the remedy lies in increasing organic matter in the soil. This can be done through increased use of animal dung, green manuring and alike measures.

Agricultural diversification through dairying or pulse crops are some of the

TABLE 5: IRRIGATION AND EVAPOTRANSPIRATION DEMAND OF IMPORTANT CROPS IN PUNJAB

(cms)

Crop	Water Need Based on No of Irrigations Recommended by PAU[1]	Evapo-transpiration Demand[2]
Rice	180	73
Cotton	45	65
Maize	40	60
Groundnut	25	50
Wheat	45	50
Gram	25	40
Rapeseed/ mustard	25	35
Sugarcane	150	180

Sources: 1 Dhawan, 1995, p 40
2 Prihar et al June, 1993.

TABLE 7: EFFECT OF IRRIGATION PRACTICES ON PADDY YIELD IN PUNJAB

Treatment	Paddy Yield (Qtl/Hec)	Number of Irriga-tions	Water Use Efficiency Kg Grain/ Hec/Cm of Water
Continuous submergence	55.1	27	29
One day drainage	54.7	21	38
Two days drainage	55.3	18	44
Three days drainage	51.1	16	45

Source: Prihar et al 1992, p 89.

TABLE 6: IMPACT OF CHANGES IN CROP PATTERN AND EXPANSION OF CULTIVATED AREA ON WATER DEPLETION IN PUNJAB, DURING 1970 TO 1990

Crop	Area under Important Crops, 000 hectares: Average of Triennium Ending 1972-73	1991-92		Change in Area
Maize	555	192		-363
Groundnut	169	14		-155
Paddy	439	1997		1558
Total kharif	2516	3591		1075
Gram	337	50		-287
Rapeseed/mustard	167	86		-81
Wheat	2346	3241		895
Total rabi	3162	3879		717
Incremental water demand (thousand ha metres) due to:				
Shift in area from maize and groundnut to paddy crop			83	
Shift in area from gram and rapeseed/mustard to wheat crop			41	
Increase in area under paddy due to additional area brought under cultivation			759	
Increase in area under wheat due to additional area brought under cultivation			263	
Increase in area under other crops due to additional area brought under cultivation			77	
Total water deficit during 1989-90			1780	
Per cent of deficit due to:				
Change in crop pattern in favour of:	Paddy		4.65	
	Wheat		2.29	
	Both		6.94	
Increase in cultivated area put under:	Paddy		42.65	
	Wheat		14.80	
	Both		57.45	
	Other crops		4.35	
	All crop		61.80	
	Other factors[1]		31.26	

Note: 1 Other factors include non-agricultural uses like industrial and human consumption.

options which can check soil degradation and restore soil health and fertility of degraded lands. Expansion of dairy would be helpful in two ways. One, it would result in shift in some area from wheat and paddy, which are considered problem creating crops, to fodder crops, some of which are legume. Two, it would increase availability of organic manures (animal dung) for crop production.

Environment pollution: Burning of crop residues and application of insecticides/pesticides are the major source of environment pollution by agricultural activities. Burning of crop residues of paddy and wheat generates smoke which makes the atmosphere suffocating in the months of April and October. To quote one such incidence, due to burning of paddy straw, a thick fog engulfed Ludhiana town and large area in its surroundings around October 15 this year causing a panic due to very poor visibility during otherwise bright season and irritation to eyes. The untimely rain came to the rescue of the people by settling the smog.

Each year more than 5 million tonnes of paddy straw[5] is destroyed by burning and only a small fraction is used for industrial production.[6] Rice straw is not used as feed for animals because there is sufficient availability of green fodder and wheat straw in the state which are superior feed compared to paddy straw.

Air pollution caused by burning of rice straw can be checked by promoting industrial demand for straw as it can be used to manufacture products like strawboard, paper, alcohol, mats and ropes. It is a pity that despite lot of concern about biomass scarcity in the country there is reckless wastage of millions of tonnes of biomass, that too at a cost to environment.

Some of the wheat straw is also burnt in the fields harvested by harvest combines but the problem is confined to limited area.

Coming to the use of insecticides/pesticides, the results of our study show that use of plant protection chemicals was nil in wheat and very little in paddy, whereas the crops which have potential to compete with wheat and paddy are applied heavy doses of plant protection chemicals. The only alternative which does not involve use of plant protection chemicals is production of fodder crops, ie, diversification through dairy activity.

Water resource depletion and degradation: Studies on groundwater balance in Punjab have observed that the water-table has been receding in many parts of the state due to excess of draft over the recharge [Baldev Singh 1992; Surender Singh 1991 and Prihar et al 1993]. Severity of over-exploitation of groundwater can be judged from the fact that withdrawal of groundwater exceeded recharge in half of the state's districts and in 58 per cent of the blocks (termed as grey) during 1991-92, the latest year for which information is available. The extent of over-exploitation in these districts varied between 7 and 159 per cent with average at 40 per cent [Dhawan 1995]. A study conducted by PAU [Prihar et al 1993] indicates that water-table in the state is declining at the rate of 0.11 metre every year.

Though many factors are responsible for over-exploitation of groundwater, the problem is being largely attributed to rice-wheat production system, which has come to dominate crop pattern in the state during the post-green revolution period. Second, it is said that paddy, which is a crop of wet-land areas, is basically not suitable for large scale cultivation in the state. In order to understand the role of various factors in groundwater depletion and to evolve remedial measures to mitigate the problem we have estimated to what extent wheat-paddy rotation is responsible for the water depletion. It is also explored whether diversification through other crops and activities would rectify the situation.

As there is close coincidence between expansion of area under paddy cultivation and incidence of water depletion, it is strongly believed that paddy is the main culprit for the problem. This impression is reinforced by the fact that paddy requires many times more irrigation compared to the crops it has substituted – as it is generally believed that water consumption by a crop is proportional to its irrigation requirement. However, a study conducted by PAU, Ludhiana, [Prihar et al 1993] shows that this is not entirely true. This study provides estimates of actual water used by important crops, (transpiration plus evaporation) net of seepage water, ie, part of irrigation water that percolates back to water-table, which show that paddy consumes only 22 per cent higher water compared to maize and 12 per cent higher water compared to cotton. Whereas, irrigation needs of paddy are 4 and 4.5 times the irrigation needs of maize and cotton (Table 5). The study also shows that sugarcane draws more heavily on water than the sum of net water actually consumed in wheat and paddy cultivation.

The next question now is, does the difference in water requirement due to shift in crop pattern, ie, the difference in actual water consumption between paddy and other kharif crops and wheat and other rabi crops, explain the negative water balance in the recent years. To find answer to this question we have estimated incremental water requirement between early 1970s and early 1990s attributable to: (i) shift in crop pattern, (ii) expansion of net sown

TABLE 8: ESTIMATES OF IMPACT OF CROP DIVERSIFICATION ON WATER BALANCE IN PUNJAB

Change	Impact on Water Balance	
	000 Hec Metres	Per Cent Change in Existing Water Deficit*
Replacing 1 per cent area under paddy by maize or alike crops	+2.60	–0.146
Replacing 1 per cent area under wheat by gram or alike crops	+3.24	–0.182
Replacing 1 per cent area under paddy and corresponding area under wheat by sugarcane, or, increase in sugarcane area by 92 per cent	–113.83	+6.39
Area share of paddy reduced to the level of TE 1972-73 by shifting paddy area to maize or alike crop	+185.72	10.43
Area share of wheat reduced to the level of TE 1972-73 by shifting wheat area to gram or alike crop	+20.10	1.13
Area share of wheat and paddy reduced to the level of TE 1972-73 by shifting area to grain and maize or alike crops	+205.83	–11.56

Note: * '+' indicates increase and '-' indicates decrease in the exiting water deficit.

TABLE 9: ANNUAL CAPITAL OUTLAY ON AGRICULTURE AND ALLIED HEADS IN PUNJAB AT 1980-81 PRICES, 1974/75 TO 1995/96

Capital outlay	1974-75 to 1978-79	1980-81 to 1984-85	1985-86 to 1989-90	1990-91 to 1995-96
Total, Rs Crore	319	293	153	178
Per hectare net sown area Rs	768	698	365	424
As per cent of NSDP Agri	13.46	14.34	6.08	7.23
AS per cent of total NSDP	6.90	6.67	2.73	3.30

Source: Taken from the ongoing study 'Statewise Analysis of Public Investments in Indian Agriculture: Implications for Growth and Equity', National Centre for Agricultural Economics and Policy Research, New Delhi.

area, and (iii) increase in cropping intensity (*vide* Table 6).

The exercise reveals that the shift in crop pattern in favour of paddy is responsible for 4.65 and shift in favour of wheat for 2.29 per cent of the over-exploitation of water. The main factor has been additional area brought under cultivation during the last two decades through (i) expansion of net sown area, which witnessed an increase of 3.44 per cent, and (ii) increase in crop intensity, which recorded a jump of 25 per cent during this period. These two changes resulted in expansion of gross cultivated area by 29.3 per cent.

Additional area brought under paddy and wheat cultivation accounted for about 43 per cent and 15 per cent of the deficit respectively. The combined impact of change in crop pattern and area expansion on account of paddy is about 47 per cent while wheat is responsible for 17 per cent of water depletion. Increase in water use by other sources (non-agricultural uses) is responsible for about 31 per cent of the present water deficit in the state. Thus, increase in agricultural as well as non-agricultural uses of water are responsible for declining water-table in the state though contribution of former is almost double the latter. The increase in water use for agricultural purposes has resulted mainly due to additional area brought under crop cultivation,[7] and profitability of green revolution crops, namely, wheat and paddy is the underlying factor for this. This area was previously put to land uses like fallow, unculturable waste, barren land, saline or waterlogged area.

Apart from the factors discussed above, the policy on water pricing is also aggravating the problem. Electric motor operated tubewells have come to dominate the irrigation sector in the state for which fixed nominal tariff was paid till recently; the present state government has waived even the nominal tariff and declared free supply of electricity to agricultural sector. This leaves no incentive with the farmers to economise on water and encourages indiscriminate and excessive water use. This assertion is supported by the PAU study which shows that irrigation treatment to paddy with 2 days drainage, between complete infiltration of ponded water and subsequent irrigation, provides higher yield compared to the farmers' practice of continuous submergence of paddy (Table 7).

Similarly, in wheat crop, the studies in rainfed area show that with judicious use of inputs, only 2 irrigations can result in 40 quintals yield per hectare which is at par with the yield obtained with five-six irrigations. Excessive irrigation in most of the cases causes damages like leaching of nutrients causing economic losses, pollution of groundwater due to leaching of chemicals, cost of energy to lift excessive water and wastage of scarce water resource.

Can Crop Diversification Check Groundwater Exploitation?

We have discussed in the previous section that the most important factor underlying over-exploitation of groundwater in Punjab is increase in crop intensity and net sown area. Increase in cultivated area on account of both these factors has gone mainly to paddy and wheat crops. Now the issue of interest is that if some of the area under wheat and paddy is replaced by some other crops how would it affect strain on water resources?

Though it would be of interest to see how diversification through vegetables, floriculture and fodder crops, which hold the potential to replace some area under wheat and paddy, would affect water resource, the information on net water consumption (ET demand) of these crops is not so far available. Therefore, we have examined the likely impact on water demand resulting from diversification through only those crops for which data on ET demand is available (the results are presented in Table 8).

The exercise reveals that, if the estimates of net water demand provided by PAU study for various crops are considered as reliable, the change in crop pattern away from paddy or wheat in favour of less water intensive crops would be of small help in reducing water depletion. When paddy crop is totally withdrawn from the state, the gap between water use and availability reduces by about 15 per cent. Another scenario in which share of paddy and wheat in GCA is reduced to the level prevailing in early 1970s, when there was no strain on water resources, existing water deficit decreases by about 12 per cent (10.43 per cent on account of paddy and 1.13 per cent on account of wheat).

Based on these findings we conclude that if the challenge of over-exploitation of water is to be tackled, following measures need to be adopted:

1 Indiscriminate and excessive use of irrigation should be checked through volumetric pricing of water, which in the case of electric tubewells means levying energy (electricity) used for irrigation based on actual use.
2 In the areas with serious water depletion problems (known as dark blocks) some incentive for keeping a part of land fallow should be considered.
3 Diversification of existing crop pattern with suitable crops would result in some, though small, savings of water. Since no single measure can result in large reduction in water use, the strategy should be to make use of such small savings wherever possible.
4 Incentive should be provided for installation of water saving devices like drip and sprinkler, etc.
5 Cultivation of crops like sunflower during peak summer season[8] should be discouraged. Similarly, cultivation of sugarcane in areas facing declining water-table should be discouraged.
6 Serious efforts need to be made on supply side to conserve and harvest maximum of rain water during the monsoon season.

VI
Future Strategy and Policy Suggestions

Punjab farmers have made high level of investments in agriculture due to which any activity having low level of outturn, despite high rate of profitability over variable costs, would not find favour with the farmers. Therefore, only those enterprises can compete with the existing ones whose value productivity is high. Second peculiarity of Punjab agriculture is that due to strong infrastructural network and high exposure to mass media, high competitive spirit and innovativeness of the state's farmers any potentially profitable enterprise gets quickly adopted by large number of farmers which results in glut in the market leading to violent price crash when the commodity is not of importance for mass consumption.

Keeping these two characteristics in mind, the state should follow three types of diversification; one, through items of mass production and consumption; two, concentration on area specific enterprises of moderately high value; and three, limited diversification through non-conventional high value items of elite consumption.

The enterprises in the first category, whose production should be encouraged at small scale but throughout the state, include milk (dairying), pulses, oilseeds. Since these are the items of importance to masses and there is wide and growing gap between their availability and requirement, even large increase in their production can be absorbed. Objectives of diversification through these enterprises are to increase crop diversity, make production broad-based, ameliorate environment, ease the strain on natural resources, and reduce ecological degradation

The second category should include moderately high value commodities like vegetables, potato, onion, cotton, basmati rice and sugarcane. These enterprises should be carefully earmarked for different agro-climatic sub-zones based on the comparative advantage, and different activities should be encouraged in different areas to avoid production gluts and price crash. Main objective of diversification through this type of activities is to enhance farmers' income and to provide growth impetus to the economy.

The third type of diversification strategy should focus on items like floriculture,[9] exotic vegetables, mushroom and alike crops. Most of these commodities involve high use of capital and high risk and their marketing generally requires locating suitable buyers and some sort of contract with the buyers. Secondly, demand for these commodities is very narrow and they being highly perishable and sensitive require special arrangements for transportation, packaging and storage. No doubt domestic as well as international demand for such commodities is becoming buoyant but the entire demand can be met by production by small number of farmers. Therefore, these enterprises should be encouraged at the fields of select farmers, who possess the risk bearing ability and entrepreneurial ability to explore and locate the markets/buyers, and who can carefully schedule supplies to match the demand.

For a fairly long time, farmers in the state have been used to produce for assured market, facing little market risk. The producers have to be prepared and trained to produce for market based products. This also imposes heavy responsibility on the state to develop an efficient system of marketing and to develop commodity specific marketing infrastructure.

Despite lot of interest and discussion on diversification, no serious efforts have been made to identify and encourage area specific activities. General type recommendations are being made for whole of the state. There is a need to identify area specific enterprises taking into account the groundwater status, soil health and other micro characteristics of different regions. This way, specialisation pockets should be developed rather than emphasising many things for each area. The advantages of developing specialisation pockets are: (i) these are useful in harnessing advantages of scale economy and (ii) it is easy and less costly to develop infrastructure to boost one or a few rather than many commodities.

The two aspects which need immediate attention and which are vital for long-term growth are (i) public investment in agriculture and (ii) R and D in agriculture. Two decades ago, Punjab invested about Rs 319 crore annually or Rs 768 per hectare (at 1980/81 prices) for agricultural infrastructure which is one of the contributing factor for high growth of agricultural output during the 1980s.[10] As can be seen from Table 9, public investment in the state plummeted to Rs 365 per hectare during the late 1980s. Expenditure on public investment in real terms has declined at the rate of 2.65 per cent per annum during the past two decades which is highest among all the major states. As a consequence of sharp decline in public investment in the state, the infrastructure like rural roads and markets are in bad state. It may sound incredible that lot of paddy crop in the state markets this year has been spoiled by rains, causing huge losses to the farmers because proper market yards for keeping the produce were not available in most of the markets. In order to create favourable condition for long-term growth, the state should step up public investment for improvement in agricultural infrastructure.

The second aspect relates to technology. Though it is acknowledged that the potential of existing technology has been almost exhausted, the state agricultural university, which has a glorious history of ushering in green revolution in the state, has not been able to develop new technology to break the ceiling of old technology. It is a great challenge to the agricultural scientists of PAU to harness the potential of much talked bio-technological techniques and evolve new crop strains and varieties to meet the twin challenges of growth and sustainability.

The R and D in the state has focused mainly on wheat and paddy. Efforts should now shift to new and emerging crops and enterprises of future importance. Establishment of agro-based industries of small and medium size in rural areas away from urban places can be of great help in creating employment for rural youths and to encourage diversification.

Due to high level of crop intensity and high proportion of net sown area in geographic area, changes in crop pattern can ease the strain on water resources to a limited extent. Simultaneous efforts are needed to accumulate the small savings in water wherever possible The possible measures through which demand for water can be reduced are (i) proper pricing of water resources to put a check on indiscriminate and excessive use of irrigation water, (ii) creating awareness among the farmers about the long-run repercussions of depletion of water-table, (iii) research on crops/varieties and water management techniques which can result in water saving, (iv) check on paddy transplanting during the month of May and early June, (v) adjustments in cropping pattern, (vi) incentive for use of irrigation devices like drip and sprinkler, etc, (vii) augmenting supply sources, (viii) discourage cultivation of crops like sunflower which are grown during peak summer, and (ix) confining sugarcane production only to those areas where symptoms of negative water balance are not there.

Dairying is the best choice for agricultural diversification in the state, on

ecological as well as economic grounds. It has vast potential for growth in employment and income and for restoring soil health. Efficient and modern system of marketing and processing is required to give boost to dairy industry in the state.

Notes

[Large part of the paper is drawn from the study *Potentials and Prospects of Agricultural Diversification in Punjab*, Institute of Economic Growth, Delhi, March 1996, computer-script]

1 Refer to the agenda paper, 'Punjab Agriculture 2020: Farmers and Farming in Punjab', Punjab Agricultural University, Ludhiana, October, 1998.

2 As per the prevalent practice in our sample and in most of the rural Punjab, dairy unit consists of in-milk and dry buffaloes and crossbred cows and some young stock Expansion of dairy activity implies expansion of all these animals and not in-milk animals alone.

3 According to an estimate of department of economics, PAU, Ludhiana, number of migrant labour in agriculture is about 12 lakh, which corresponds to 1 worker for every 5 workers in the state.

4 On the contrary, Punjab farmers prefer labour saving technologies because sufficient labour at reasonable wage rate is not available for crop production operations despite the flux of migrant labour from outside states to Punjab.

5 According to a PAU study ratios of straw to grains vary from 0.50 to 1 97 for different varieties. For a conservative estimate we have used the lower ratio

6 The price paid for straw by the industries is so low that only few farmers around the factory location find it economic to transport and sell the produce.

7 Discussions with the agricultural experts reveal that most of the increase in GCA has gone to wheat and paddy directly, while, remaining increase in GCA has resulted in expansion of wheat and paddy area indirectly through crop shifts.

8 Encouragement by the agriculture department to grow crops like sunflower gives the signal to farmers as if water scarcity is not a serious problem in the state

9 As per the available statistics flower production is taken only on 159 hectares area in Punjab and on 29,430 hectares in India (*Economic Times*, March 25, 1996, p 12) which constitute only 0.002 and 0.016 per cent of the total cropped area, respectively.

10 Based on the findings of the ongoing research study on 'Public Investment in Indian Agriculture: Implications for Growth and Equity', National Centre for Agricultural Economics and Policy Research, New Delhi

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Transitions in Rice Production Systems in Eastern India

Evidence from Two Villages in Uttar Pradesh

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Despite the dynamism shown by the agricultural sector as a whole the performance of eastern India which is characterised by rain-fed agriculture has remained somewhat dismal. This study attempts to shed some light on the nature of economic and institutional changes occurring in rice production systems of two villages in eastern Uttar Pradesh over the last 15 years. An overarching question the study explores is whether eastern UP's agrarian relations characterised as being semi-feudal permit expansion of production through the rise of new institutions and spread of knowledge.

THE agricultural sector of India has been undergoing rapid changes, especially in recent years, as a result of improved technologies, investment in infrastructures and policy support. Between 1980-83 and 1992-95, the agricultural output grew at the rate of 3.4 per cent per annum while the population grew at 2 per cent per year. Although rice and wheat have dominated the agricultural production in India both in terms of their share in area as well as in the value of production, recent patterns show increasing diversification to oilseeds and other non-food crops.

Despite the dynamism shown by agricultural sector as a whole, the performance of eastern India which is characterised by rainfed agriculture has remained somewhat dismal. West Bengal and parts of Uttar Pradesh where irrigation investment has expanded in recent years have shown an impressive increase in the productivity of rice and wheat while the productivity growth in other states in eastern India has remained more or less stagnant (Table 1). The total factor productivity in rice production in eastern India increased at the rate of 0.36 per cent per annum during 1972-89 as compared to the rate of increase of 0.76 per cent per annum for the southern region [Kumar and Rosegrant 1995].

Although the impact of green revolution in eastern India as a whole has been somewhat limited, there are areas and regions where productivity growth has been faster than in others. In a recent analysis of performance of agriculture in India, Bhalla and Singh (1997) examined the differential patterns of change in agriculture across different states of India. A major finding from their study is that in eastern India, the share of wheat and oilseeds has expanded at the cost of coarse cereals and pulses whereas the share of other crops, especially that of rice, has remained more or less constant. Overall, the cropping intensity and the productivity of labour has increased over time. An earlier district-level analysis conducted by Bhalla and Tyagi (1989) reported a similar finding.

State and district level analyses, while useful in studying general patterns of changes in agricultural sector, tend to mask differential patterns of growth across areas with varying environments and resource bases. Such analyses do not permit an in-depth study of the changes in the structure of rural economy and the evolution of production relationships that occur in a dynamic setting. The objective in this paper is to shed some light on the nature of economic and institutional changes occurring in rice production systems of two villages from eastern UP over the last 15 years. Before we decided to revisit these two villages, an overarching question was whether eastern UP's agrarian relations characterised as being semi-feudal permit expansion of production through the rise of new institutions and spread of technology. The results reported here form a part of a more comprehensive study of the changes in rice production systems of eastern India.

The villages selected for the study are Ecauna in Deoria district and Tewari-ka-Tarkulawa in Maharajganj district of eastern Uttar Pradesh. Rice production systems in the flood-prone village Ecauna and the flood-free village Tewari-ka-Tarkulawa were earlier studied in 1982 [Ballabh 1983]. These villages were revisited in 1996 to document major changes in production systems and production relations that have occurred during the past 14-year period. Although a formal survey approach was used in 1982, we employed key-informant surveys, focus group discussions and rapid rural appraisal methods to collect information in 1996. Several of the informants in 1996 were farmers surveyed in 1982. This information base was complemented by secondary data available from village and district agricultural offices.

Study Villages

Salient features of the study villages are given in Table 2. The flood-prone village Ecauna is located in the Rudrapur block of the Deoria district. It is located in the western part of the delta created by the rivers Rapti and Garra. The village is inhabited by 352 households with brahmins being dominant (35 per cent). The construction of an embankment along the river Rapti for flood control in 1986 has converted this erstwhile flood-prone village to essentially a flood-free village. Although overall transportation and communication facilities within the village have improved, the absence of bridges over the Rapti and the Garra rivers makes travel by boat hazardous in the rainy season when these rivers are swollen with monsoon rains. The flood-free village, Tewari-ka-Tarkulawa is located along the Gorakhpur-Maharajganj road. More than half of 225 households of the village are Muslim. The village is accessible all-year round, with buses between Gorakhpur and Maharajganj passing through the village.

Agroclimatically, both villages are part of the same region except that Ecauna experienced several floods before the construction of the embankment. The average annual rainfall in the area is 1,200 mm, with more than 90 per cent being received from July to October. The soil texture in Ecauna varies from sandy loam to loam, whereas in Tewari-ka-Tarkulawa, it is loamy to clay loam. The average size of the operational holding is smaller in Tewari-ka-Tarkulawa than in Ecauna. In 1982, the average sizes of the operational holding in Tewari-ka-Tarkulawa and

Ecauna were 2 and 2.8 ha, respectively. The operational holdings have become smaller in 1996 due to an increase in population pressure. Remittance is a major source of cash income in both villages.

A district-level analysis done as a part of the 1982 study indicated that both the level and rates of adoption of HYV rice were higher in flood-free districts than in flood-prone districts. However, the spread of HYV of wheat was not affected by the flood-proneness of the village as it is grown in the dry season. Overall, the adoption of HYV wheat occurred at a much faster rate than that of rice [Ballabh and Sharma 1987] illustrating the importance of climatic risk in determining the rate of diffusion of HYVs.

Due to flood-proneness, Ecauna had a lower cropping intensity than Tewari-ka-Tarkulawa in 1982. The cropping intensity in Ecauna increased from 1.6 in 1982 to 1.74 in 1996 mainly as a result of reduction of fallow area in the kharif (rainy) season. The extent of kharif fallow in Ecauna was over 40 per cent in 1982. Not only has this fallow area declined to 30 per cent but the fallowing practice has also changed. Previously, farmers used to follow a practice called the 'block fallowing' where land owned by several farmers in a particular area used to be fallowed. The decision on which block to fallow in a particular year used to be communal. As the extent of land fragmentation was high (6-20 parcels per farm), these block fallows included land operated by almost every households in the village. In addition to allowing the land to 'rest', these 'block fallows' served as the communal grazing area. Consolidation of land holdings in mid-1980s has reduced the extent of fragmentation (1-6 parcels per farm) and made the practice of block fallowing unviable as land holdings are now more concentrated spatially. The need for block fallows as communal grazing grounds also declined as the net availability of fodder has increased. The fallow land is now scattered all over the village instead of being concentrated in a 'block'.

An important change in the cropping pattern in Ecauna is the reduced importance of mixed cropping. In addition to rice/maize mixed cropping which occupied almost one-third of the net sown area in the kharif season, other common crop mixtures were rice/millet/maize/pigeonpea/fibre-crops and rice/millet/pigeonpea/pearlmillet. Mixed cropping used to be an internal risk management strategy of farmers to cope with flood risk as the crops in the mixture were chosen for their differences in phenology and susceptibility to flood. The construction of embankment to prevent flooding eliminated this risk. As a result, mixed cropping is now fast becoming part of the village history. Instead of mixed cropping, sole cropping is now more popular. In addition, the area under cash crops such as vegetables, sugarcane and fodder has expanded (Table 3).

The area under sole crop of rice increased from about 20 per cent in 1982 to about 28 per cent in 1996 – an increase of 8 percentage points. The expansion is accounted for by local varieties grown under rainfed conditions. The adoption of HYV has remained more or less constant. Thus, elimination of flood risk has not encouraged the adoption of HYV of rice indicating that there are other dominant constraints to adoption.

In the rabi (dry) season also, the extent of mixed cropping appears to have declined. The area under sole cropped HYV wheat as well as under mustard, pigeonpea, lentil and potatoes has expanded. Overall, rabi cropping seemed to be more diversified in 1996 than in 1982. Commercial production of vegetable crops is also becoming increasingly popular.

A different pattern of change can be observed in Tewari-ka-Tarkulawa which, historically, has been a more accessible and flood-free village. The cropping intensity increased only marginally from 1.95 to 2. The cropping pattern here gives an impression of increasing specialisation towards the rice-wheat system. The area under HYV of rice has expanded dramatically with the local varieties more or less disappearing from the village. The kharif fallow completely disappeared in 1996 although it was of marginal significance in 1982. In the rabi season, the area under wheat and lentil expanded at the cost of area under sugarcane and fodder.

The comparative study of changes in cropping patterns indicates that kharif cropping in Ecauna is becoming less diversified with mixed cropping being re-

TABLE 1: GROWTH IN RICE PRODUCTION AND PRODUCTIVITY IN EASTERN INDIA, BY STATES, 1970-91

States	Rice Growth (Per Cent Per Year)			Population Growth	
	Area	Yield	Production	Rural	Total
Assam	0.94	0.92	1.86	na	2.1
West Bengal	0.45	2.27	2.72	2.1	2.2
Bihar	0.04	1.55	1.59	1.8	2.1
Orissa	-0.34	1.88	1.54	1.4	1.8
Madhya Pradesh	0.62	1.68	2.30	1.5	2.4
Uttar Pradesh	1.03	4.28	5.31	1.9	2.1
Eastern India	0.44	2.27	2.71	1.84	2.2

Note. The growth rates are obtained by estimating semi-logarithmic trend lines on the time series data.
Source. Hossain and Laborte (1996)

TABLE 2: SALIENT FEATURES OF STUDY VILLAGES

Particulars	Ecauna (Rudrapur Block, Deoria District)	Tewari-ka-Tarkulawa (Partawal Block, Maharajganj District)
1 Population (1991)	2165	1430
2 No of voters	>1800	>1000
3 Total HH	352	225
4 Caste composition of households		
Brahmins	120	1
Yadav	60	16
Scheduled caste	100	18
Muslims	3	130
Others	69	60
5 Distance from district headquarter (km)	21	20
6 Minimum distance for pitched road (km)	9	0
7 Nearest market (km)	13-15	6
8 Nearest bank (km)	2[a]	0.5
9 Nearest seed and fertiliser store	2	0.5
10 Village amenities	Police station, telephone one primary school and post office	Three primary schools, (including two arabic and urdu teaching schools), Post office
11 No of tractors	8	8
12 Means of irrigation	Diesel pumpset and borewells	Canal, diesel pumpsets, borewells
(a) No diesel sets	53 (12)[b]	30 (10)
(b) No of borewells	>120 (27)	>60 (20)

Notes: a The nearest commercial bank is located 2 km away from the village. However, farmers have to travel 15 km for credit facilities. Since the village does not come under the jurisdiction of the bank located near the village.
b Figure in brackets refers to number of diesel sets and borewells 1981-82.
Source: Collected from village records

placed by sole cropping while in the rabi season, diversification appears to be increasing. There has also been a shift from low value crops such as millets and barley to higher value crops like rice, wheat and lentil. Small-scale commercial production of vegetable crops also seems to have started. In Tewari-ka-Tarkulawa, the dominant rice-wheat system has further expanded resulting in reduced diversification of cropping pattern. Thus, elimination of flood risk in Ecauna has expanded the cropping options available to farmers who are trying out different crops depending on suitability to soil conditions and marketing possibilities. The cropping pattern there still appears to be in a state of dynamic disequilibrium. On the other hand, the direction of change in Tewari-ka-Tarkulawa has been towards a greater specialisation in the historically profitable rice-wheat system.

Input Use and Yield

Data on yield and input use for rice and wheat are provided in Table 4. The yield of rice has increased in both villages. In Ecauna, the yield of local varieties has increased by 50 to 70 per cent while that of the improved varieties has more than doubled. The yield improvement has been the result not only of varietal change but also of increased use of chemical fertilisers and irrigation. It is interesting to note that not only are the modern varieties grown now somewhat different from those in 1982 but some of the traditional varieties have also been replaced by other traditional varieties. In Tewari-ka-Tarkulawa, traditional and early modern varieties have been replaced by popular Saryu-52 which occupies over 70 per cent of rice area. The yield of modern varieties has more than doubled during the last 15 years. Overall, input usage and average yeild of rice are higher in Tewari-ka-Tarkulawa than in Ecauna.

The picture for wheat is similar to that for rice. In Ecauna, wheat is no longer grown without irrigation. When over 50 per cent of area under wheat was rainfed in Ecauna in 1982, the average yield was lower than in Tewari-ka-Tarkulawa where wheat was mostly irrigated. With the expansion of irrigated wheat in Ecauna, the average yield and input usage for wheat in both villages are now similar. This points towards the homogenising influence of irrigation, especially in the dry season.

Factors of Change

The elimination of flood risk after the construction of the embankment, land consolidation and the expansion of irrigation are the prime factors contributing to changes in rice production systems in the study villages, particularly in Ecauna. Construction of embankment and land consolidation created suitable conditions for exploiting the productive potential of land. This in turn stimulated private investments in irrigation. As a result, irrigated area in Ecauna increased from 20 per cent of the net cultivated area in 1982 [Ballabh 1983] to almost 70 per cent of the net cultivated area in 1996. Except for the private land kept for grazing purposes, most areas now have access to irrigation. Many farmers have invested in several borewells and some even have more than one diesel pumpset. The number of diesel pumpsets and borewells have increased from 12 and 27, respectively in 1982 to 53 and 120, respectively in 1996 (Table 5). This expansion of irrigation is not limited to Ecauna but is widespread in the Rudrapur block as a whole and in other areas in the region. The number of diesel pumpsets in the Rudrapur block increased from 1,000 in 1984 to nearly 4,000 in 1995. There has been a massive increase in investment in diesel pumpsets and borewells in eastern Uttar Pradesh since 1988. Each year since 1988, farmers invested on an average of 3,800 pumpsets in Gorakhpur, 2,300 in Maharajganj and over 5,500 in Deoria and Padrona districts combined [Shah 1996].

The expansion of investment in irrigation resulted from an active promotion of tubewell programme by the government as well as by an increase in private investments made by farmers. Most of these private investments is financed through remittances. The government encouraged investment through subsidised loans for pumps as well as by the free-boring schemes. Between 1984-88, total amount spent on free-boring schemes in Uttar Pradesh was Rs 1.1 billion of which nearly 45 per cent was spent in eastern Uttar Pradesh [Pant 1992, p 62]. According to the branch offices of the State Bank of India located near the study villages, an average village in Maharajganj, Deoria and Gorkhpur districts receives about Rs 4-5 million in remittances annually. This flow of capital would have certainly helped relax the capital constraints for investment in irrigation. Along with the expansion of investment in irrigation, the emergence of groundwater market in the area facilitated improved access to water even for smallholders for whom investment in groundwater is economically unviable [Pant 1992, Shah 1996]. The investment in diesel pumpsets and borewells and development of groundwater markets in Ecauna and Tewari-ka-Tarkulawa are, therefore, part of the larger development process which started in eastern Uttar Pradesh during the last 8-10 years.

The consolidation of land holding also played an important role in encouraging investment in irrigation in eastern Uttar Pradesh [Hanumantha Rao 1994]. Historically, eastern India has had a greater degree of land fragmentation than other regions of India [Ballabh and Walker 1986, 1992]. A land consolidation programme was launched to reduce the inefficiency associated with highly fragmented holdings. The land consolidation programme in Uttar Pradesh has been successful in achieving its objectives [Ballabh and

Table 3. Kharif and Rabi Crops Grown and Their Proportionate Area

(Percentage of net cultivated area)

Crops	Ecauna		Tewari-ka-Tarkulawa	
	1981-82[a]	1995-96[b]	1981-82[a]	1995-96[b]
Kharif crops				
Rice HYV	9.7	8.5	56.2	85.0
Rice local	10.5	19.8	20.03	-
Mixed crop with rice and maize	35.0	-	-	-
Maize	-	14.6	-	-
Maize + pigeon pea	-	14.5	-	-
Other crops	3.6	12.5[c]	18.9[d]	15.0[d]
Fallow	41.2	30.0	4.87	-
Rabi crops				
HYV wheat	40.1	48.0	56.0	60.0
HYV wheat +	31.8	6.0	-	-
mustard		4.0	-	-
Chickpea + barley	17.25	4.0	-	
Potato	-	9.8		
Pigeon pea[c]	-	14.5		
Lentil	7.0	16.0	15.0	25.0
Other crops	3.85[c]	1.7[f]	29.0[e]	15.0[f]
Cropping intensity	159.0	173.9	195.0	200.0

Notes: a based on sample survey conducted in 1981-82. b Based on case studies, and rapid rural appraisal. c Other crops included, vegetables, mainly parval, sweet potato, sugarcane and minor millets. d Other crops included fodder crops and sugarcane. e Other crops include sugarcane, barseem, pea and chickpea + linseed f Other crops include sugarcane and fodder crops only.

Walker 1992]. Among the study villages, consolidation was completed in 1974 in Tewari-ka-Tarkulawa and in 1987 in Ecauna. In principle, a competitive water market could be a substitute for land *consolidation as far as profitability of investment in irrigation is concerned. However, an efficient water market cannot emerge without irrigation investment by a large number of potential 'sellers'.* Land consolidation in Uttar Pradesh played a critical role in encouraging the initial investment which later spurred the emergence of water market. In addition, land consolidation may have reduced other inefficiencies associated with highly fragmented holdings.

TRANSITIONS IN RURAL INSTITUTIONS

As predicted by the theory of induced institutional innovation [Hayami and Ruttan 1985], the emergence of new opportunities for increasing productivity and income through a change in cropping pattern and/or through technological change induces changes in the way agricultural production is organised. The production relationships among various factors of productions change to facilitate exploitation of new opportunities. Old institutional arrangements that are no longer relevant are discarded, some are adapted and modified, and new arrangements are developed. In agricultural societies, institutional arrangements regarding the use of land and labour are the most important. Here, we examine the changes in land and labour markets that have occurred in the study villages.

In Ecauna, the proportion of land under sharecropping fell from 45 per cent in 1982 to 30 per cent in 1996. There was a corresponding increase in the area under owner-cultivation. The fixed-rent tenancy arrangement which was non-existent in 1982 has now evolved in Ecauna albeit at smaller scale and only for commercial vegetable crops, particularly, parval. In Tewari-ka-Tarkulawa where share cropping was of marginal importance in 1982, the proportionate area sharecropped has remained more or less constant although there appears to be some shift from fixed rent tenancy to owner-cultivation. Overall, the area operated under owner-cultivation arrangement has increased and now covers more than 70 per cent of the net cultivated area (Table 6). The historical dominance of the owner-cultivation system in densely populated areas has been attributed by various authors to a lower transaction costs associated with this system as compared to other alternative arrangements [Netting 1993, Otsuka and Hayami 1986]. The increased incidence of owner- cultivation in recent years in India is the result of factors such as the eviction of tenants by the landlords [Bhalla and Chadha 1981] and the *conversion of households with very small operational holdings to the landless* category [Chadha 1994].

There are several factors that determine the nature of tenancy arrangements in different societies [Otsuka and Hayami 1986; Otsuka et al 1992]. While economic factors such as cost of enforcement and extent of risk sharing determine the most efficient method in a particular situation, legal and institutional restrictions limit the choices available. When the cost of monitoring and enforcing a sharecropping contract is high, as in the case of the absentee landlords, fixed-rent system tends to dominate. Sharecropping systems are important when cost of enforcement is low and when there are substantial risk-sharing benefits. To the extent that sharecropping is a device to share production risk, the elimination of flood risk in Ecauna after the construction of the embankment may have reduced the need for sharecropping. The fact that the sharecropping arrangement has historically been of marginal importance in the more stable environment of Tewari-ka-Tarkulawa lends support to this hypothesis. Our observations in Ecauna are in conformity with the view proposed by Otsuka et al (1992) that sharecropping is no less efficient than owner -cultivation when landowners are able to monitor tenant's work effort. As hypothesised by Otsuka et al (1992), monitoring of tenant's work effort must be easier in Ecauna where most landowners and tenants live in the same community in comparison to that in Tewari-ka-Tarkulawa. On the other h[a] the absentee landlords in Tewari-Tarkulawa may have been able to red[uce] the monitoring cost by using a fixed-[rent] system. The permanent attached lab[our] system has been abandoned in b[oth] *villages. Otsuka et al (1992) have hyp[o]thesised that permanent attached labo[ur] system emerged in India due to* (a) a rig[id] caste system and (b) agrarian reform law which made tenancy too risky fo[r] landowners. These hypotheses while usefu[l] in explaining the prevalence of permanen[t] attached labour in India in comparison t[o] south-east Asia, do not fully account fo[r] the role of labour demand and suppl[y]

TABLE 5: NUMBER OF PUMPSET AND BOREWELLS AND WATER PRICES PER HOUR IN ECAUNA

Year	Number of Pumpsets[a]	Number of Borewells[a]	Watersale Price/Hour (5-6.5 hp Pumpsets)
1981-82	12	27	12[b]
1985-86	21	41	–
1990-91	51	89	–
1995-96	53	120	25[c]

Source: a Block development office, Rudrapur. b Ballabh (1983). c survey conducted in October 1996.

TABLE 6. LAND LEASE MARKET IN SELECTED VILLAGES
(Percentage of cultivated land)

	Village			
	Ecauna		Tewari-ka-Tarkulawa	
	1981-82	1995-96	1981-82	1995-96
Fixed rent	0	1-2	20	15
Share cropping	45	30	4-5	4-5
Permanent labour	4-5	<0.5	1	0
Owner-operator	50-51	68-69	74-75	79-80

TABLE 4: INPUT USE AND YIELD OF RICE AND WHEAT

Particulars	Ecauna		Tewari-ka-Tarkulawa	
	1981-82	1995-96	1981-82	1995-96
Yield (qt /ha)				
Rice (local)	7-9[a]	12-16	2.5-4.0	–
Rice HYV	12-15[a]	30-40[b]	25-30	35-40
Inputs[c]				
Nitrogen (kg/ha)	35-40	50-70	50-60	100-120[d]
Irrigation (Numbers)	2	2-3	e	e
Wheat (qt/ha)	22-25[f]	30-35	30	30-35
Inputs				
Nitrogen (kg/ha)	50	90	80	110
Phosphorus (kg/ha)	35	50	60	60
Irrigation (Number)	1	1-3	2-3	2-3

Notes: a In 1981-82, kharif crops were seriously damaged by floods. The yields reported are average expected yield during that period. b Yield is subject to large fluctuations, for example, farmers reported that yield was almost half during 1994-95 due to drought. c For HYV rice variety. d In addition, farmers applied on an average 28-35 (kg/ha) phosphorus. e Continuous irrigation and 3-10 cm water depth maintained in rice fields during growth phase. f Yield under unirrigated condition was about 16 qt/ha.

factors in determining the nature of labour contract. For example, when the opportunity cost of tenant labour increases as a result of agricultural intensification or due to increased availability of non-farm employment opportunities, fewer labourers may be willing to enter into permanent attached labour contract. The overall tightening up of labour market in the study villages appears to be one of the reasons for the disappearance of this type of labour contract. During the intervening 14-year period, the real wage rates have increased by 50-200 per cent of their value in 1982 (Table 7). Wage payments are now mostly in money rather than in kind.

There also appears to have been some shift in the way hired labour is contracted. In 1982, most of the hired labour used to be paid on a daily-wage basis except for harvesting labour in Tewari-ka-Tarkulawa (Table 7). There has now been a general shift towards piece-rate contracts. For example, transplanting is done mostly by contract labour, with the contract rate based on the area transplanted. While the piece-rate contract for transplanting reduces the landowners' cost of organising and supervising labour as compared to that for daily-wage labour, such a contract also reduces the incentives for labourers to do a more careful and precise job. Transplanters paid on piece-rate basis tend to reduce the trans planting density in order to complete the job fast. In fact, such quality deterioration in the face of tight labour market has been an important factor leading to a switch from manual transplanting to direct seeding in Malaysia or to mechanical transplanting in east Asian countries.

The system of daily wage contract for weeding has remained unchanged. Removing weeds without damaging rice requires a greater degree of precision on the part of the weeding labour. As opposed to transplanting which needs to be completed within a narrow time window, weeding can be somewhat staggered. In addition, the need for weeding depends on the extent of infestation that varies from season to season and from field to field. Hence, unlike with transplanting, the peak-labour demand problem associated with weeding is not so pronounced. From the point-of-view of landowners, the daily wage contract is, hence, superior to a piece-rate contract for weeding. Even in rice-growing areas with very tight labour market, manual weeding is done almost invariably on a daily wage basis. On the other hand, the spraying of herbicides, which does not require much judgment, is done almost invariably through piece-rate contracts.

The harvesting contract in Tewari-ka-Tarkulawa is on crop-share basis for both rice and wheat and has remained unchanged. On the contrary, the daily wage contract for harvesting of rice in Ecauna has remained unchanged but for wheat, the contract system has changed from daily to area (piece rate) basis. Why has the nature of contract in Ecauna changed for wheat but not for rice? A careful study of the labour and demand supply situations as well as that of the ease of contract enforcement is needed to answer this question satisfactorily. Here, we merely propose a hypothesis that a higher degree of field-to-field yield variability of rice as compared to that of wheat may have made the stipulation of labour earning for piece-rate contract for rice more difficult.

Concluding Remarks

The slow growth of agricultural production in eastern India continues to be a cause for concern. The feudal production relations characterised by large landowners exploiting small farmers and landless labourers through narrowly-specified rigid contractual arrangements have often been considered to be the root cause of sluggishness in agricultural performance in the region. The general perception of the Indian rural labour market, particularly in eastern India, has been that of an oligopsonistic market with large and rich farmers fixing wages and using interlinked credit and land market to their advantage [Bhaduri 1977, Bardhan and Rudra 1986, Bardhan 1988]. Mencher, for example, writes "*In areas such as Bihar and eastern Uttar Pradesh, landowners still derive their power from traditional sources and are still exploiting labourers in the same ways as they always did*" [Mencher 1988:544, emphasis added].

The changes that have occurred in the study villages over the past 14 years reflect the dynamism of agricultural sector in rural eastern India that has resulted from improved infrastructure, rising opportunity cost of farm labour and a greater interaction of the rural sector with the market economy. A similar dynamism was shown earlier by states such as Punjab and Haryana where the green revolution led to a rapid change in agricultural sector. Due to predominantly rainfed nature of agriculture in eastern India, the pace of change has been obviously slower than in Punjab and Haryana. But increased private and public investment in irrigation of recent years will certainly help accelerate changes in agricultural production systems as indicated by the study villages.

The new opportunities for increasing farm productivity and incomes have led not only to changes in crop choice and input usage but also have induced changes in land and labour markets. The evidences presented from the two villages do not corroborate the stereotypic and stylised picture of exploitative land and labour market in eastern Uttar Pradesh. Real wages have increased over time and the labour market has tightened as employment opportunities both within and outside the village have expanded. It is not easy for

Table 7. Changing Contracts for Wage Employment and Wage Rates in Selected Villages

Particulars	Ecauna		Tewari-ka-Tarkulawa	
	1981-82	1995-96	1981-82	1995-96
1 Permanent labour	One acre land[a] for whole year	System almost vanished	One acre[b] land	System almost vanished
2 Casual labour (Rs/day)				
Men	10-12	25-30	15	30-35
Women	5	15	5	15
Real wage rate	2 kg rice	4-6 kg rice	3 kg rice	4.5-6 kg rice or 4 kg of wheat
3 Transplanting	Daily basis cash or kind	Area basis (Rs 625-760/ha)[c]	Daily basis cash or kind	Area basis (Rs 750-1000/ha)
4 Weeding	Daily basis cash or kind	Daily basis cash	Daily basis cash or kind	Daily basis cash
5 Harvesting				
Wheat and barley	Daily basis (wheat 2 kg or wheat + barley 3 kg or barley 4 kg/day)	Area basis (160-200 kg/ha)	Crop share (12:1)[d]	Crop share (12:1)
Rice	Daily basis (2 kg rice/day)	Daily basis (4-6 kg rice/day)	Crop share (12:1)	Crop share (12:1)

Notes: a The employer gave one acre of land to employee for self cultivation, breakfast and sometimes lunch for working 8-10 hrs/day for 6-1/2 months. The employee (labourer) was entitled to cultivate land for both kharif and rabi seasons. b For working as a farm manager. c Figures in parentheses indicate the wages rate. d Crop is shared between land owners and harvesters in 12:1 ratio.

landowners to unilaterally stipulate conditions of labour contract as the bargaining power of labour has increased with the rise in the opportunity cost of labour. As agriculture is further intensified in these villages and off-farm and non-farm opportunities expand, the nature of land and labour markets is bound to be determined much more by market forces than by the social and communal factors. Innovative technological, policy and institutional interventions to exploit and encourage rural dynamism are needed to guide the process of economic growth.

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Impact of Irrigation Management Transfer in Maharashtra

An Assessment

Niranjan Pant

On the basis of available sparse data,this paper finds the functioning of water users' associations (WUAs) in Maharashtra beneficial on various fronts. Not only have the WUAs increased their irrigated area but also the water use efficiency has been found to be higher after the irrigation management was transferred to the members of WUAs. The WUAs have considerably improved the recovery of water charges thereby bringing revenue to the government. Moreover, the WUAs, by charging much higher amount from their water users, have accumulated funds for the maintenance of their micro structures and continue to survive and thrive even after management subsidy of the government has ceased to exist.

DURING the last two decades, the concept of participatory irrigation management (PIM) in India has passed through three distinct phases. Starting from around 1975 and for about a decade until 1985, the emphasis initially was on creating outlet based water users' organisations and later on research leading to support for PIM as a pragmatic solution for equitable distribution of water among the irrigators, maintenance of water conveyance, micro structures and resolution of conflicts amongst the water users arising out of these. As a result, the government's strategy for CAD included, from the start, farmers' organisations as necessary to run the micro-system [GOI 1977]. The major research funding for this purpose during this period was provided by the Ford Foundation, New Delhi. During the second phase (1985-90), the emphasis shifted from research on PIM to experimentation with PIM. Therefore, a number of pilot projects were started and developed all over the country during this period. Ministry of Water Resources (MOWR), GOI, World Bank and USAID aided and assisted in the establishments of pilot projects, while NGOs played a catalytic role in mobilising farmers and sustaining the pilots. The third phase starting from early 1990s has seen the emergence and propagation of the idea of hand over/turnover of irrigation systems in case of smaller systems and hand over of management of sub-systems, particularly at the level of distributories/minors in case of larger systems to the irrigating farmers. Encouraged and aided by the GOI, state governments and NGOs are playing a pivotal role in this phase.

Evolution in Maharashtra

The precursor of the present day irrigation co-operatives in Maharashtra was M Visvesvarya, the doyen of civil engineering in India, who as early as 1902-03 had suggested the establishment of such co-operatives in respect of Khadakwasla canals while working as an assistant engineer in the Bombay state. Later the same ideas found place in the report of the Irrigation Inquiry Committee (1938) where he was the chairman. The committee suggested establishment of water panchayats. These panchayats were to be chosen by the irrigators of all the villages of the then ten mile section. Sale of water on volumetric basis was also recommended to check the wastage of water [SOPECOM 1997].

In recent times in 1984, the irrigation department formulated the 'Outlet Committee Rules 1984'. Under these rules, for every outlet, a committee of five members was to be formed It was envisaged that an outlet would irrigate the area of 15 farmers. There was supposed to be a leader for each committee, and leaders of every beat formed 'a group of irrigators'. This group was to elect a panch for the water panchayat committee [Lele and Patil 1994].[1]

In October 1985, MOWR, GOI, asked all the state governments to select one minor in each CAD project as a pilot for farmer participation. Elaborate guidelines were issued, indicating the time periods for each activity and provision of 50 per cent matching grant from GOI. Consequently, in Maharashtra, pilot schemes were initiated in Khadakwasla and Jayakwadi projects. Side by side, two action research programmes were also launched in close collaboration with NGOs in Mula and Waghad irrigation projects in 1988 and 1990. These programmes especially aimed at evolving strategies, methodologies and approaches in motivating and organising the farmers and identifying the training needs of farmers and the irrigation staff. In reality, the action programmes were very useful in formulating the guidelines on PIM [Lele 1998].

Encouraged by the then leadership of irrigation department, the state of Maharashtra launched the programme of establishing water users' co-operatives and strode past other states in respect of the progress. This was evident during the national seminars on PIM at WALMI, Aurangabad in June 1994. The national seminar in Maharashtra was preceded by the state level workshop held in February 1994 where the obstacles pertaining to PIM were discussed at great length and ways and means to resolve them were mooted. Maharashtra's pre-eminence among the other Indian states was again visible in the national seminars held at New Delhi during June 1995 and January 1997.

The Scenario

In judging the impact of irrigation management transfer (IMT) in Maharashtra, it is necessary to see the context of the state generally and more particularly in relation to agricultural scenario. Maharashtra is the third largest state both in terms of population and the area. It's population of 78.9 million (1991 Census) and area of 307.7 thousand sq kms both contribute 9.3 per cent each in India's population and area. It compares favourably to India's average with respect to literacy and urban population. In Maharashtra, there are 65 per cent literates compared to India's average of 52 per cent. Again, 39 per cent of its population dwells in urban areas compared to 26 per cent in rest of the India. The life expectancy of its female is 62 years and for the males 60 years, while the same at the all-India level is 56 years for males as well as females.

Maharashtra contains about 8 per cent of India's total land holding and about

13 per cent of the holding area. This is reflected in Maharashtra's relatively larger average holding size (2.64 ha compared to India's 1.69 ha). The gross cropped area in Maharashtra is 21.8 million ha which constitutes 11.8 per cent of India's 185.5 million cropped area. The cropping intensity in Maharashtra is 120 per cent which means only 20 per cent of the cultivated area is cropped more than once. At all-India level the cropping intensity is 130 per cent. In case of Maharashtra 11.4 per cent of the cropped area is irrigated which falls far short of 33.3 per cent of the cultivated area irrigated at the all-India level. It produces about 11 per cent of India's foodgrains and it ranks third in terms of foodgrain production.

Table 1 provides information about crop production in Maharashtra and the share and ranks of important crops at the all-India level. Cereals, including millets occupy 51 per cent of the cropped and 54 per cent of the irrigated area. Among the individual crops, Jowar (Sorghum) is the most important crop in Maharashtra. It occupies 29 per cent of the cropped area and 17 per cent of the irrigated area. It's share in India's total sorghum production is 45 per cent and the state ranks first in its production. Although it occupies 17 per cent of the irrigated area, irrigated area constitutes only 6 per cent of the cropped area. This means that the major portion of the crop is taken as a rain-fed crop. The other important crops in the state are gram, maize, pearl millet, pulses and oilseeds.

Among the irrigated crops, the most important crops are paddy, sorghum, wheat and sugarcane. Except sorghum, a big chunk of these crops are irrigated and among these crops sugarcane is the most irrigation consuming crop. Although it is cropped in only 20 per cent of the cropped area, it occupies 15 per cent of the irrigated area and 81 per cent cropped area is irrigated. About 12 per cent of India's sugarcane is produced in Maharashtra. The other important crops requiring regular irrigation are wheat, paddy and maize.

It would be interesting to examine Maharashtra's irrigation resources in view of the prevailing agricultural scene. Table 2 shows the gap between irrigation potential created and its utilisation in Maharashtra and India. The total irrigation potential created in Maharashtra up to 1994-95 was 4.75 million ha. This constitutes 5.5 per cent of India's created irrigation potential. An interesting point emerging from the table is that while in case of India, the gap in the utilisation of this potential is 10.6 per cent, in case of Maharashtra this widens to 27.6 per cent. Another interesting point emerging from the table is that this gap is very much higher in respect of major and medium projects. In part B of the table, it is found that while in case of major and medium projects, the gap is 35.8 per cent, in case of minor schemes, it lowers down to 10.2 per cent. However, here also, as in the case of major and medium projects, the gap at the all-India level is lower (3.8 per cent) than Maharashtra.

Table 2: Gap in the Irrigation Potential Created and Its Utilisation through Major, Medium and Minor Irrigation Schemes at the End of 1994-95 (1000 ha) (Provisional)

Part A

	Irrigation Potential Created	Utilised	Gap
States + UTS	87067.01	77854.80	9212.21
Maharashtra	4747.79	3438.85	1309.94

Source: L K Joshi, *Irrigation and its Management in India: A New Paradigm – Participatory Irrigation Management*, MOWR, 1997.

Part B

	Position up to 1991-92		
Major and medium			
States + UTS	32802.31	29215 65	3586 15
Maharashtra	2034.85	1306.8	728.05
Minor schemes			
States + UTS	48293.05	46445 79	1847.26
Maharashtra	2461 65	2211 15	250 50
All schemes			
States + UTS	81095.36	75660 44	5433 41
Maharashtra	4496.5	3517.95	978.55

Source: Eighth Five-Year Plan, vol II, GOI, 1992.

Table 1: Cropped and Irrigated Area by Principal Crops in Maharashtra

(Area in '000 ha)

Crops	Cropped Area	Percentage of Cropped Area	Irrigated Area	Percentage of the Irrigated Area	Irrigated Area as Percentage of Cropped Area	Relative Share of Maharashtra in Relation to India's Cropped Area (Per Cent)	Rank in India out of 25 States + UTS
Paddy	1581	7 2	467	18.8	29.5	3.7	10
Wheat	873	3 4	388	15.5	44.4	3.0	7
Jowar (Sorghum)	6331	29.0	406	16.9	6.4	44.5	1
Bajra (Pearl Millet)	1927	8 8	58	2.3	3.0	18.5	2
Maize	109	195	31	1.2	28.4	2.3	12
Ragi, other cereals and millets	374	1 7	5	0.2	1.3	9.5	Only Ragi 3
Total cereals and millets	11195	51 2	1355	54.4	12.1	na	
Gram	673	13 1	106	4.2	15.8	8.7	4
Tur and other pulses	2585	11.8	23	0.9	0.9		
Total pulses	3258	14 9	129	5.2	4 0	na	
Sugarcane	444	2 0	360	14.5	81.0	11.7	2
Condiments and spices	168	9.8	94	3 8	66.0		
Fruits and vegetables	339	1.6	265	10.6	78.2		
Ground water	881	4 0	87	3.5	9.9	9.0	5
Other oilseeds	1973	9.0	41	1.6	2.1		
Total oilseeds	2854	13.0	128	5.1	4.5	10.1	5
Cotton	2730	12.5	91	3.6	3.3	35 0	1
Other seeds	878	4.0	67	2.7	7.6		
Total area	21866	100.0	2489	100 0	11.4		

Source: *Indian Agriculture in Brief*, 25th edition, Directorate of Economics and Statistics, department of agriculture and co-operation, ministry of agriculture, government of India, 1996, pp 234-39, 326-31 and 386-87.

Present Status of IMT

According to the latest information, there are 228 water co-operatives in the state where IMT has taken place. Out of these, 213 (93.4 per cent) are formed in major and medium projects and 15 (6.6 per cent) are formed in minor projects. In terms of their regional distribution, the largest number of 76 water users' associations (WUAs) have been formed in Pune region, followed by 71 in north Maharashtra region and then 63 in Marathwada region. In Vidarbha, consisting of Nagpur and Amravati regions, their total strength is 18. In Konkan region, on account of pressure from the donor agencies, attempt is being made to establish water co-operatives. However, in no case, IMT has been effected so far.

The reasons for the non-establishment of water co-operatives in Konkan region are manifold. Here the holdings are very small, rainfall is very high and the terrain contains a steep slope. There is no diversification of crops and paddy is the main crop which does not require any precise water management. In contrast, in case of Vidarbha region, land holdings are large and old malguzari tanks exist in the area. Since farmers are accustomed to getting free water for centuries, they do not find any attraction in forming WUAs. Further, paddy is the main crop in Vidarbha also. Hence farmers do not find the management subsidy and the rebate in water charges given by the state government attractive enough to come forward to form water users' co-operatives.

Although Marathwada is a backward region like Konkan and Vidarbha, there are a number of irrigation projects funded by the USAID and the World Bank like Jayakwadi and Majalgaon. In all such projects, the donors have insisted on the formation of WUAs. In fact, out of 56 societies where IMT has taken place in Marathwada, 42 were established in Jayakwadi (26) and Majalgaon (16) projects.

In Table 3 status of IMT in Maharashtra, has been presented. Up to May 1998, IMT had taken place in case of 201 societies involving an area of 76,021 ha. In 27 cases involving an area of 9,157 ha, the agreement between the society and the irrigation department was signed but the IMT had not taken place. In 219 cases involving an area of 75,624 ha the societies were registered but agreement had not taken place. In 186 cases involving an area of 66,567 ha the societies had been proposed but registration of the societies had not taken place. This means that there were 432 societies involving an area of 1,51,348 ha which were in various stages of IMT apart from those where IMT has been effected.

One conspicuous feature emerging from the table is that the IMT activities are more prevalent in case of CAD, and major and medium projects than in non-CAD and minor projects. Of the total 201 cases where IMT has taken place, 85.6 per cent are from the major and medium CAD projects, 10.4 per cent are from major and medium non-CAD projects and 4 per cent are from the minor project. The faster pace of IMT in respect of CAD projects is understandable because at the GOI level 50 per cent matching financial commitments are only for CAD projects. To that extent, IMT process is facilitated in CAD projects. In case of non-CAD projects, funding may not be easily available except in case of donor assisted projects.

Key Ingredients of IMT

The following constitute the key elements of IMT in Maharashtra.

(i) Unit of IMT : The primary unit of PIM is at the minor level involving about 200 to 300 farmers covering an area of 300 to 800 ha. The water users' organisation at the minor level is a formal organisation registered as water users' society under the Co-operative Societies Act, 1960 of Maharashtra state [Lele 1998].

(ii) Pre-condition for registration : At least 51 per cent beneficiaries or 51 per cent of the land of the CCA of the minor is the eligibility criterion for the registration of the WUA [GOM 1994].

(iii) Memorandum of understanding (MOU) : It is an agreement between WUA and the irrigation department which specifies rights/responsibilities and functions of the either side.

(iv) Volumetric supply of water: The irrigation department supplies water to the WUA on a volumetric basis. Water quota for each cropping season is fixed, based on a normal year supply, and is entered in the MOU. This ensures equitable water supply in the project command.

(v) Freedom of crops: The WUA has the freedom of growing any crops within the sanctioned quota of water.

(vi) Conjunctive use of water: According to the provisions of the Maharashtra Irrigation Act, 1976, the canal and well water can not be used for the same area. The act envisages a distance of 3 metres between channels that supply irrigation water through the canal system and the channels conveying water from wells. Since WUAs are charged on a volumetric basis, the government does not levy any additional fees on the ground of water exploitation by WUA members.

(vii) Maintenance and repairs: A grant of Rs 20 per ha is given by the irrigation department. In addition, WUAs can charge additional fees or service charges from the water users.

(viii) Incentives for timely payment: An incentive of 5 per cent rebate in water charges is provided for the timely payment of water charges.

(ix) Management support: A 20 per cent discount in water bill to the WUA after management subsidy is discontinued in case of CAD projects[2] and since beginning in case of non-CAD projects.

(x) Provisions in case of surplus/deficit water: Rules for distribution of surplus or deficit water are framed and incorporated in the MOU [Lele 1998].

(xi) Multipurpose co-operative societies: The WUAs are designed to be multipurpose co-operative societies and can undertaken other allied activities which may promote agricultural production and increase incomes of the members [Lele 1998].

Table 3: Status of IMT in Major, Medium and Minor Projects (May 1998)

Project	Number of WUAs									
	Management Handed Over		Agreement Signed/Yet to Take Over Management		Registered/Yet to Sign Agreement		Proposed		Total	
	No	Area in ha	No	Area in ha	No	Area in ha	No	Area in ha	No	Area in ha
Major and Medium										
CAD project	172	59,621	14	3,695	175	60,404	144	51,330	505	1,75,050
Non-CAD project	21	13,856	6	2,172	21	7,615	21	8,215	69	31,858
Total	193	73,477	20	5,867	196	68,019	165	59,545	574	2,06,908
Minor project	8	2,544	7	3,290	23	7,605	21	7,022	59	20,461
Total for state	201	76,021	27	9,157	219	75,624	186	66,567	633	2,27,369

Source: Directorate of Irrigation Research and development, Pune

Impact Assessment

The rationale behind IMT is to improve the delivery of services so that better results could be obtained from the management transferred entities. Therefore, an assessment of IMT would hinge on the performance results of the transfer on the crop productivity, profitability, financial viability, equity, water use efficiency and sustainability of IMT. Assessment of the impact of IMT could include the following aspects:

- Reliability and/or adequacy of irrigation service, especially for water delivery, change in irrigable area actually irrigated and system maintenance.
- Effect of cost effectiveness of irrigation management.
- Payment rate of O and M fees before and after IMT.
- Financial viability of the WUA.
- Physical condition of micro structures and the conveyance system before and after IMT.
- Impact of IMT on agricultural productivity (cropping intensities and yields).
- Changes in profitability of irrigated agriculture.
- Effect on access by socio-economically deprived beneficiaries,

Given the extent to which IMT is being implemented in Maharashtra, it is frustrating to find that there is very little information available about the impact of IMT programme on the aspects detailed in the preceding. This is more so when there is a full fledged directorate in Maharashtra to monitor the IMT programmes which regularly collects information on cropwise irrigated area, sanctioned and used water, water charges collection etc. Very little attempt has been made to analyse these data. It remains to be seen whether IMT can simultaneously save money for the government, bring about more cost efficient management for the farmers and achieve financial and infrastructural sustainability. This is not surprising considering the fact that even in an international conference on IMT in Wuhan, China during September 1994, only 25 of the 100 papers contained data on performance outcome of management transfer. Even among these 25 papers, most of them presented only data on performance after transfer, using at most two or three performance measures and only four papers presented before and after comparisons [Vermilion 1997].

This paper attempts to assess the impact of IMT in terms of some of the factors mentioned in detail in the preceding. The paper is based on the author's visit to various IMT sites in Maharashtra during October 7-18, 1998 and the study of the various documents obtained during this visit. The most depressing fact which the author found was that there was hardly any comparable data before and after IMT available in Maharashtra. Thus, what was true of impact studies was also true of availability of data dealing with before IMT period. As a result, whatever data could be collected in respect of impact

Table 4A: Salient Features of WUAs in Jayakwadi Project

WUA Village, District	CCA (in ha)	ICA (in ha)	Month and Year of Registration	Month and Year of Transfer	Gap Between the Two (Months)	No of Beneficiaries	Members as Percentage among Beneficiaries	Members Area (in ha)	Members Area as Percentage of CCA
Shriram, Akhatwada, Aurangabad	215	160	2/90	1/91	11	111	75.7	137	63 7
Gurudatta, Akhatwada, Aurangabad	247	219	4/91	6/92	14	174	71 3	205	82.9
Sri Samarth, Bhogaon, Jalna	355	275	3/84	2/89	59	233	45 9	212	59.7
Shriram, Ramasgaon, Jalna	263	204	7/90	8/92	25	102	68 6	145	55.1
Dhnyaneshwar, Ponwad, Parbhani	542	459	4/90	11/90	7	239	66.1	217	40 1
Babulatar, Babulatar, Parbhani	964	889	11/90	9/91	10	315	93 7	789	81 8
Akshay, Pornwad, Parbhani	430	369	7/92	11/92	3	152	64.5	160	37 2
Renuka, Bharaswada, Parbhani	410	333	2/93	2/93	0	222	49.5	170	41.6
Jagdamba, Ambetakali, Parbhani	350	280	8/94	11/94	3	151	55.0	162	46 3
Changadeo, Changatpuri Aurangabad	258	225	2/90	10/91	20	211	91 9	182	70 5
Sri Maharudra, Thakurdgaon, Beed	230	211	11/93	1/94	2	165	51.5	108	47.0
Ahilyadevi, Majalgaon, Beed	186	144	5/92	11/92	6	80	100.0	186	100 0
Jaikishan, Waghura, Beed	350	272	11/93	1/94	2	135	65 9	180	51 4
Total	4800	4040			162	2290		2853	
Average	369 2	310 8			12 5	176 2	69.2	219 5	59.8

Source. Water Management Research Division, Aurangabad

Table 4B: Salient Features of WUAs in Pune and North Maharashtra Regions

WUA Village, District	CCA (in ha)	ICA (in ha)	Month and Year of Registration	Month and Year of Transfer	Gap Between the Two (Months)	No of Beneficiaries	Members as Percentage among Beneficiaries	Members Area (in ha)	Members Area as Percentage of CCA
Sri Gyaneshwar, Jalke Budruk, Ahmednagar	267	277	7/93	7/94	12	143	75	127	47.60
Shri Datta, Chanda, Ahmednagar	495	361	2/89	7/89	15	402	54	190	38.40
Sri Mullika, Nighoj, Ahmednagar	1007	743	3/91	2/92	11	510	53		
Shri Waghjai, Nighoj, Ahmednagar	860	567	1/91	2/92	13	470	55		
Shri Malganga Nighoj, Ahmednagar	402	[illegible]	1/90	1/91	12	207	100		
Audumbar, Kangaon, Pune	104	71	4/89	10/89	6	77	81		
Sahajivan, Patas, Pune	232	156	2/87	3/89	13	100	59	124	53.40
Sidheshwar, Ranjani, Solapur	315	223	2/86	5/89	39	192	81		
Laxmi-Narsimha, Sheore, Solapur	169	169	12/91	7/93	19	115	91		
Kisangiri Maharaj, Bakupimpalgaon, Ahmednagar	784	290	12/90	10/92	22	297	61		
Total	4635	3118			162	2513			
Average	463.5	311.8			16.2	251.3	71		

Source: Water Management Research Division, Aurangabad

assessment is sketchy and partial and the same has been utilised in this paper.

Area, Membership and Duration in IMT

Tables 4A and 4B provide data dealing with 13 and 10 WUAs, respectively. The 13 WUAs covered in Table 4A are drawn from Marathwada region and are established in the World Bank funded Jayakwadi project. The 10 WUAs covered in Table 4B are drawn from the north Maharashtra and Pune regions and are established in Khadakwasla, Mula, Bhima and Kukadi projects.

In respect of Marathwada WUAs (Table 4A), the CCA varies between 186 ha (Ahilya Devi) and 964 ha (Babultar). The average CCA of the 13 WUAs comes to about 369 ha. In case of the 10 WUAs from north Maharashtra and Pune region (Table 4B), the CCA varies between 169 ha (Laxmi Narsimha) and 1,007 ha (Shri Mullika) and the average CCA size comes to about 465 ha. In all WUAs, the ICA is substantially smaller than CCA. The average ICA size for the Marathwada WUAs comes to 311 ha, while the same for the north Maharashtra and Pune WUAs is 316 ha. This means that there is a bigger gap between CCA and ICA in case of the latter compared to the former.

The next important aspect is membership of WUAs. This deals with the proportion of total beneficiaries having membership of the WUAs. In respect of Marathwada, it is found that the membership varies between 46 per cent in case of Shri Samarth Bhogeshwar to 100 per cent in case of Ahilyapur which has the smallest CCA. In respect of north Maharashtra and Pune regions; the membership varies between 53 per cent in case of Mullika and 100 per cent in case of Malganga.

Another aspect important from the point of view of what constitutes beneficiaries of WUAs and their area in the WUA. Here, apart from percentage of members in relation to total land holders, it is also important what proportion of members' land constitutes a WUA. In respect of Marathwada, the proportion varies between 100 per cent in case of Ahilyabai and 40 per cent in case of Dhyaneshwar. In respect of north Maharashtra and Pune regions, the data are available only for 3 WUAs. In two cases (Dhyaneshwar and Datta), the proportion of members' land in relation to the CCA is less than 50 per cent. The minimum eligibility requirement for registration of a WUA in Maharashtra is 51 per cent land of CCA or 51 per cent of members of the total beneficiaries. Looking at the data from this angle, it is found that although all WUAs in Marathwada region fulfil the eligibility requirement, Sri Maharudra just scraps through with 51.5 per cent members and 47 per cent land. In case of north Maharashtra and Pune regions, in all the three cases for which the data is available, the minimum requirement are fulfilled.

It seems the eligibility requirement as decided by the Maharashtra government is not very prudent. There is every possibility that a small proportion of beneficiaries with large land holdings can establish a WUA. This may exclude a majority of marginal poor farmers to reap the benefits which is not a very promising prospect from the stand point of equity and more particularly giving equal shares to socio-economically deprived sections of farmers in a WUA command. Therefore, it would be advisable that Maharashtra government changes the eligibility criterion and amends it to contain 51 per cent CCA land as well as 51 per cent membership.

There is a step between the registration of a WUA and its hand over to farmers and this step is known as the joint inspection of the condition of the sub-system to be handed over to farmers. After this stage, deficiencies are noted and once the system is restored to the designed or operation level by the irrigation department, the same is turned over to the WUA. Tables 4A and 4B also show the time lapse between registration and handing over. The data in respect of Marathwada show that the time varied between almost five years in case of Samartha Bhogeshwar to zero time in case of Renuka. The average time for 13 WUAs, however, comes to about a year.

In respect of north Maharashtra and Pune regions, the time variation is minimum (0.5 year) in case of Audumbar and maximum (3.25 years) in case of Sidheshwar. The average time taken in case of 10 WUAs is about 1.33 years. This means that the time taken in handing over is quite reasonable considering the fact that the

Table 5 Gross Irrigated Area: Proposed and Actual

(In hectares)

WUA, Village, District	Reference Year	Sugarcane		Bajra		Rice		Wheat		Jowar	
		Proposed	Actual	Proposed	Actual	Proposed	Actual	Proposed	Actual	Proposed	Actual
Sri Gyaneshwar, Jalke Budruk, Ahmednagar	1994-98 (4 years)	35.36	35.20		139.40			115.44	116.20	176.80	63.40
Shri Datta, Chanda, Ahmednagar	1992-95 (3 years)	162.45	555.50	86.64	221.46	32.49		140.79	189.00	216.60	29.91
Sri Mullika, Nighoj, Ahmednagar	1992-95 (3 years)		279.24	222.90	36.70			356.70	48.12	1092.30	120.39
Shri Waghjai, Nighoj, Ahmednagar	1992-95 (3 years)		253.20	170.10	112.29	34.02		272.16	75.30	1833.40	68.91
Shri Malganga, Nighoj, Ahmednagar	1992-95 (3 years)		211.05	78.30	153.86	15.66		125.28	24.00	383.67	10.14
Audumbar, Kangaon, Pune	1992-95 (3 years)	15.00	58.50	16.95	15.39	25.50		31.95	27.39	42.60	25.95
Sahajivan, Patas, Pune	1992-95 (3 years)	33.39	102.84	38.04	4.50	57.03		95.07	21.18	71.31	12.99
Sidheshwar, Ranjani, Solapur	1992-95 (3 years)		289.02	46.89	1.98			100.50	27.36	437.49	186.69
Laxmi-Narsimha, Sheore, Solapur	1992-95 (3 years)		309.60	35.49	17.49			76.02	26.85	329.75	107.04
Kisangiri Maharaj, Bakupimpalgaon, Ahmednagar	1992-93 (3 years)	69.72	124.40	243.93	43.00			112.65	90.60	174.24	93.20
Total		315.92	2213.55	939.24	746.07	164.70		1426.56	646.00	4758.16	718.62
Annual average		31.59	221.35	93.92	74.61	16.47		142.66	64.60	475.82	71.86

Source: Directorate of Irrigation Research and Development, Pune

Table 6A: Before IMT: Water Utilised and Area Irrigated

Name of the WUA	Reference Period	CCA (in ha)	ICA (in ha)		Water Utilised (TCM) K	Water Utilised (TCM) R	Water Utilised (TCM) HW	Water Utilised (TCM) Total	Area Irrigated (ha) K	Area Irrigated (ha) R	Area Irrigated (ha) HW	Area Irrigated (ha) Total	Area Irrigated Per MME (ha) K	Area Irrigated Per MME (ha) R	Area Irrigated Per MME (ha) HW	Area Irrigated Per MME (ha) Overall
Malganga, Nighoj,	1985-90	402	261		1969.2	5710.9	3221.1	10901.2	255.9	385.9	202.5	844.3	130.0	67.6	62.9	77.5
Ahmednagar	(5 years)			Av	393.8	1142.2	644.2	2180.2	51.2	77.2	40.5	168.9				
Datta, Chanda,	1982-89	495	361		2074.3	3839.3	3041.3	8954.9	700.84	741.65	344.5	1787.01	337.3	193.2	113.3	199.5
Ahmednagar	(7 years)			Av	296.3	548.5	434.5	1279.3	100.1	105.9	49.2	255.2				
Shri Ram, Akhatwada,	1987-88 to															
Aurangabad	1989-90	215	160		57.0	596	184.0	837.0	19.6	137.4	15.1	172.1	343.8	230.5	82.1	205.6
	(3 years)			Av	19.0	199.0	61.3	279.0	3.82	44.93	6.43	55.18				
Gurudatta, Akhatwada,	1989-90 to															
Aurangabad	1991-92	247	219		35.0	820.0	526	1381	11.0	179.6	45.7	236.3	314.3	219.0	86.9	171.1
	(3 years)			Av	11.66	273.3	175.3	460.3	7.0	58.3	13.6	78.8				
Laxmi-Narsimha,	1988-89 to															
Sheore, Solapur	1990-91	169	169		558.3	1719.4	2086.8	4364.5	181.1	319.0	267.8	767.9	324.4	185.5	128.3	175.9
				Av	186.1	573.1	695.6	1454.8	60.4	106.3	89.3	256.0				
B, MJP and JY*, Ozar,	1990-92	1151	NA		NA	2808	NA	NA	541.5	352.3	NA	893.8	NA	125.5	NA	NA
Nasik	(2 years)			Av		1404				270.7		446.9				
Veer Savarkar, Rui,	1987-93	250	166		NA	NA	NA	NA	9.1	156.8	NA	165.9	NA	NA	NA	NA
Nasik	(6 years)			Av					1.5	26.1		27.6				
Sant Gyaneshwar, Rui,	1992-93 to															
Nasik	1995-96	337	236		NA	NA	NA	NA	2.5	86.02	2.7	91.2	NA	NA	NA	NA
	(4 years)								0.62	21.5	0.7	22.8				
Bali Raja, Rui,	1995-97	406	284		NA	NA	NA	NA	33.0	112.6	NA	145.6	NA	NA	NA	NA
Nasik	(2 years)								16.5	56.3		72.8				
Sri Hanuman, Erandgaon,	1995-97	372	245		441.0	717.0	–	1158.0	60.6	613.3		673.9	137.4	863.8	NA	581.9
Nasik	(2 years)				220.5	358.5	–	579.0	30.3	306.7		337.0				

Note: * Refers to Bangana, Mahatma Jyotirao Phule and Jay Yogeshwar.
Source: Named Officers and Relevent Sectional Offices.

Table 6B. After IMT: Water Utilised and Area Irrigated

Name of the Society	Reference Period		Water Utilised (TCM) K	Water Utilised (TCM) R	Water Utilised (TCM) HW	Water Utilised (TCM) Total	Area Irrigated (ha) K	Area Irrigated (ha) R	Area Irrigated (ha) HW	Area Irrigated (ha) Total	Area Irrigated Per MME (ha) K	Area Irrigated Per MME (ha) R	Area Irrigated Per MME (ha) HW	Area Irrigated Per MME (ha) Total	Water Sanctioned (in TCM) K	Water Sanctioned (in TCM) R	Water Sanctioned (in TCM) HW	Water Sanctioned (in TCM) Total
Malganga, Nighoj,	1991-96		1081.1	3188.0	2643.9	6913.0	272.7	527.5	344.5	1144.7	252.2	165.5	130.3	165.0				
Ahmednagar	(5 years)	Av	216.2	637.6	528.8	1382.6	45.5	87.9	68.9	202.3					397	623		1020
Datta, Chanda,	89-90 to 96-97		2650.5	5322.2	3639.14	11611.8	929.2	1004.0	856.7	2789.9	350.6	188.6	235.4	240.3				
Ahmednagar	(8 years)	Av	331.3	665.3	454.9	1451.5	116.1	125.5	122.4	364.0					434	1058	283	1775
Shri Ram, Akhatwada	90-91 to 97-98		247.5	1412.31	631.5	2291.24	57.38	303.93	56.95	418.26	231.9	215.2	90.2	182.5				
Aurangabad	(8 years)	Av	30.9	176.5	78.93	286.40	7.17	38	7.11	52.28					215	768	215	1198
Gurudatta, Akhatwada,	92-93 to 97-98		188.13	1264.7	543.3	1996.1	54.3	261.6	42.2	358.1	288.6	206.8	77.7	179.4				
Aurangabad	(6 years)	Av	31.4	210.8	90.6	332.8	9.1	43.6	7.0	59.7					247	887	247	1381
Laxmi-Narsimha,	92-93 to 94-95		1269.2	3319.5	2619.8	7208.5	176.8	275.6	147.1	599.5	139.3	83.0	56.2	83.2				
Sheore, Solapur	(3 years)	Av	423.1	1106.5	873.3	2402.8	58.9	91.9	49.0	199.8					770	860	620	2250
B, MJP and JY*,	92-93 to 96-97		NA	10686.0	NA	NA	2929	1473.5	NA	4402.8	NA	138.0	NA	NA				
Ozar, Nasik	(4 years)	Av		2671.5			732.2	368.4		1100.7					1861	2644		4505
Veer Savarkar,	92-93 to 97-98		397.3	1775.5	204.7	2377.5	NA	371.4	21.1	392.5	NA	209.2	103.1	165.1				
Rui, Nasik	(5 years)	Av	79.5	355.1	48.1	475.5		74.3	4.2	78.5					NA	NA	NA	NA
Sant Gyaneshwar,	95-96 to 97-98		184.2	626.7	132.7	643.6	NA	128.9	NA	128.9	NA	205.7		200.3				
Rui, Nasik	(2 years)		92.1	313.4	66.4	321.8		74.3		64.5					NA	NA	NA	NA
Bali Raja,	97-98		NA	333.0	183.0	516.0	NA	55.0	90.0	145.0	NA	165.2	491.8	281.0				
Rui, Nasik	(1 year)														510	829		1339
Sri Hanuman,	97-98		404.0	299.0	320	1023.0	140.2	119.0	118.3	377.5	347.0	398.0	369.7	369.0				
Erandgaon, Nasik	(1 year)														441	717		1158

Note: In case of Ozar during Rabi well irrigation is not included but during Kharif well irrigation is included.
Source: Named Society Officers and Relevent Sectional Offices.

department has to carry out a lot of rehabilitation work in some of the systems to enable them to perform as per design or at least at a practical operation level.

In Table 5, an additional angle in respect of north Maharashtra and Pune regions is the examination of actual crops grown in the commands of WUAs during 1992-93. The table shows the gross area covered by each crop which meant summation of each year crop during the reference period. The data have been provided for five crops, namely, sugarcane, bajra, rice, wheat and jowar. The most glaring point which emerges from the table is that only sugarcane has been grown in more area than proposed and all other crops are grown in less area than proposed. In case of sugarcane, the area coverage is seven times more than the area proposed. On the other hand, paddy is not grown in any of the areas where it was proposed. The other crop which covers much less area than proposed is jowar which is grown only in 15 per cent of the area, it was proposed. In case of wheat, it is grown in 45 per cent of the area, it was proposed to be grown. Only bajra covers an area close to what was proposed because it is grown in 79 per cent of the proposed area.

There are two generalisations which can be drawn from the data. One, sugarcane (being a cash crop) dominates among irrigated crops and the other irrigated crops suffer on account of sugarcane. Even rainfed crops like bajra might be suffering on account of sugarcane leave apart paddy and wheat. Second, the cropping pattern envisaged in the project designs is very unrealistic and is nowhere near what farmers want to grow. The data in Table 5 justifies Maharashtra government's decision to give farmers the freedom to grow whatever crop they want to grow within an allotted quota. The only point of debate however is whether sugarcane should have such a predominance over other irrigated crops, and whether or not government should impose some sanctions over WUAs in this respect?

Irrigation and Water Utilisation

The data relating to IMT is marked by a near absence of information dealing with commands of WUAs prior to IMT. As pointed out in the preceding portion, this paucity of data on similar parameters is a great hurdle in the comparison of WUAs before and after. Keeping this in mind, Tables 6A and 6B have been formed to compare the situation before and after the IMT. Of the 10 WUAs dealt in the Table, 8 were visited by the author and in all these cases the data relating to before the IMT position was specially got collected.

The comparison of water utilisation in the two tables shows that water use in commands of WUAs have generally increased. The only exception in this respect are two WUAs, namely, Malganga and Gurudatt. In case of Malganga, the average water use per year before IMT was 10,901 TCM/year and after IMT it has come down to 6,913 TCM per year. In case of Gurudatta, the average use of water per year was 460 TCM before IMT and it has come down to 333 TCM/year after IMT. However, what is remarkable in respect of Malganga is that the average area irrigated per year has gone up from an average of 169 ha to about 202 ha after the IMT. This means that the society makes better use of per unit of water. This is reflected in the area irrigated per mme (ha) compared to pre IMT position when it was irrigating 77.5 ha per mme, it irrigates about 166 ha per mme which is more than double compared to what the farmers were irrigating before the IMT.

The same, however, is not true in respect of Gurudatta, where reduction in water use has also led to reduction in irrigated area. As a result, the average annual irrigated area in Gurudatta goes down from 79 ha in pre-IMT period to 60 ha during the post-IMT period. What is however significant in respect of Gurudatta is that there is more efficient use of water after the IMT. Before IMT, the area irrigated was 171 ha per mme which goes up to 179 ha per mme in the post-IMT situation.

In terms of average area irrigated per year there are two societies, where area irrigated has gone down after the IMT compared to pre-IMT position. These societies are Sri Ram and Laxmi Narsimha. In case of Sri Ram, the average annual area irrigated has gone down to 52 ha after the IMT compared to 55 ha before the IMT. In case of Laxmi Narsimha, the average annual irrigated area before IMT was 256 ha and it has gone down to 200 ha after the IMT. Although in case of both the societies average annual water use have gone up after the IMT, the increase in case of Laxmi Narsimha is substantial (from 1,455 TCM before to 2,402 TCM after) compared to marginal increase in case of Sri Ram (from 279 TCM before to 286 TCM after). The same is reflected in the area irrigated per mme. In case of Laxmi Narsimha, the area irrigated per mme during post-IMT period comes down to 83.2 compared to 175.9 ha per mme in pre-IMT period. In case of Sri Ram the area irrigated goes down from 205.6 ha per mme during the pre-

Table 7: Recovery of Water Charges from WUAs

Name of WUA	Reference Period and Years	Total		Percentage of Recovery	Percentage of Recovery		
		Water Charges	Recovery		Kharif	Rabi	Hot-weather
Audumbar	92-96 (4 yrs)	48609	48609	100.0	10 2	35.2	54.6
Sahajivan	92-96 (4 yrs)	59111	59111	100 0	10 8	27 6	61.6
Shri Datta	91 95 (4 yrs)	244864	244864	100.0	12 6	33.8	53.6
Sri Dyaneshwar	94-95 (2 yrs)	39323	37356	95 0	8.2	42.8	49.0
Sidheshwar	92 95 (3 yrs)	293360	233276	79 5	6.0	20.0	74.0
Laxmi-Narsimha	92-95 (3 yrs)	138466	132766	95.9	10 2	31.6	58.2
Sri Mullika	92-95 (3 yrs)	139050	139050	100.0	11.1	43.6	45.3
Shri Waghjai	92-95 (3 yrs)	187699	187699	100.0	8 4	30.0	61.6
Shri Malganga	92-95 (3 yrs)	146709	146709	100.0	5 0	25.8	69.2
Kisangiri Maharaj	92-95 (3 yrs)	113954	102278	89 7	16 6	46.7	36.7
Total		1411145	1331718	94.4	9.6	31.8	58.6

Source: Directorate of Irrigation Research and Development, Pune.

Table 8: Extent of Profit from Water Charges

Name of the WUA, District	Reference Period	Average Annual Water Charges Assessed by the WUA (Rs)	Average Annual Water Charges Paid to the Govt (Rs)	Average Annual Profit of the WUA (Rs)	Percentage of the Average Annual Profit
Sri Datta, Ahmednagar	89-94 (5 yrs)	90926	40128	50798	126 6
Laxmi-Narsimha, Solapur	92-94 (2 yrs)	83450	57181	26269	45.9
Banganga, Nasik (Ozar)	93-95 (2 yrs)	44708	26784	17923	66.9
Jay Yogeshwar, Nasik (Ozar)	92-95 (3 yrs)	77364	49047	28197	57.5
Mahatma Phule, Nasik (Ozar)	92-95 (3 yrs)	31913	17339	14574	83.9
Sri Ram, Aurangabad	90-93 (3 yrs)	16973	9562	7407	77.4
Godavari, Nanded	91-93 (2 yrs)	118229	78432	39796	50.7

Source: S No 1 to 5 IIM, Ahmedabad, December 1995 and Sr No 6 and 7, GOM.

IMT period to 182.5 ha per mme in the post-IMT period. In both these cases, worse water use during the post-IMT period may be on account of increase in the area of crops like sugarcane, wheat and cotton.

In term of use of per unit of water, Shri Hanuman ranks first both before and after the IMT. It irrigates 582 ha per mme of water before IMT and 369 ha per mme after IMT. As regards the ranks of other societies before IMT, the second place goes to Sri Ram, followed by Datta and then Laxmi Narsimha. After the IMT the second place is occupied by Baliraja, followed by Datta and then Sant Dhyaneshwar.

In case of use of water by the WUAs in relation to water sanctioned to them, it is found that only one WUA, i e, Laxmi Narshimha, has taken more water than the quota sanctioned to it. This WUA on an average annually used 2,402 TCM of water against an annual allocation of 2,250 TCM sanctioned to it. The other WUAs which might have annually used more water than the water sanctioned to them are three Ozar based WUAs. Unfortunately here, figures are available for rabi season only. These three WUAs together have used 2,671 TCM of water during Rabi alone which constitutes 59 per cent of the annual sanctioned quota of 4,505 TCM. The doubt arises because during rabi the three societies have marginally exceeded the water use compared to sanctioned quota of water. Another WUA which has used more than sanctioned water during rabi is Laxmi Narsimha which has used 1,106 TCM of water against an annual rabi quota of 860 TCM.

During hot weather two WUAs, namely, Laxmi Narsimha and Datta, have used more than the sanctioned water. Laxmi Narsimha has used 873 TCM of water against the sanctioned hot weather (HW) quota of 620 TCM. Datta has used 455 TCM of water against the sanctioned HW quota of 283 TCM.

Another angle from which the WUAs have been examined is the water charges levied on them by the irrigation department and the recovery made by the department from them. In this respect data has been provided in Table 7 for the 10 Societies. The first thing that strikes in the Table is a very high rate of recovery. Out of 10 WUAs, in case of 6 the recovery is 100 per cent. Only in case of 4 association the recovery varies between 80 per cent and 90 per cent. The overall recovery in case of 10 WUAs is 94.4 per cent. This is a very high rate considering the fact that water rate recovery has been the most depressing feature of irrigation projects all over India. In his study of Kosi irrigation project in Bihar, the author had found that the recovery of water charges was annually averaging at 42 per cent and as a result the actual recovery in terms of arrears was only 7 per cent [Pant 1981]. However, what was significant was that the water charges annually collected were not even sufficient to meet the expenditure involved in the salary, etc, of the collection machinery. Consequently, there was no question of raising money for the maintenance from the water charges.

Given this bleak scenario, it is heartening to find such a good rate of recovery from WUAs in Maharashtra. An interest-

Table 9 Yearwise Profit/Loss

Name of the Society	ICA (in ha)	1989-90	1990-91	1991-92	1992-93	1993-94	1994 95	1995-96	1996-97	Average Per Year Profit/Loss (Rs)	Average Profit/Loss Per Year and Per ICA (Rs)
Audumbar	71	(-)4584	(-)6909	(-)12622	(-)22774	(-)11290	NA	NA	NA	(-)11636	(-)164
Sri Datta	361	26357	57693	30392	58262	3447	22458	22560	28550	31215	86
Malganga	261	--	(-)1582	30214	22060	47315	54332	75601	75602	43363	166
Laxmi-Narsimha	169	–	–	–	18432	25937	NA	NA	NA	22184	131
Banganga	151	–	–	–	–	(-)41667	30	NA	NA	(-)20818	(-)138
Mahatma Phule	238		-	-	24618	(-)46100	9053	NA	NA	(-)4143	(-)17
Jay Yogeshwar	417	–	-	–	53254	(-)55140	15783	NA	NA	4632	11

Source: Sr No 1 to 3 GOM, while Sr No 4 to 7 IIM, Ahmedabad study, December 1995.

Table 10 Author's Assessment of the WUAs

Name of the WUA, Village and District	Who took the Lead in Forming the WUA	Who Runs the Show	His Profession	His Land Holding (in ha)	Av Land Holding of Board of Directors (in ha)	Maintenance of Records, etc	Extent of Internal Democracy	Equity of Water Distribution
Malganga, Nighoj, Ahmednagar	WALMI and the present/secretary	Secretary	Politician and farmer	NA	NA	Fairly well	Very Little	Low
Sahajivan, Patas, Pune	Irrigation Dept and Ex chairman	Present chairman	Farmer and businessman	10.10	6.86	Very poor	High	Low
Sant Gyaneshwar, Jalke Budruk, Ahmednagar	Chairman and his father (ExEE)	Chairman	Farmer	16.20	4.78	Very poor	High	Medium
Sri Gurudatta, Akhatwada, Aurangabad	Chairman	Chairman	Businessman and farmer	4 00	2.50	Fairly well	NA	Medium
Sri Ram, Akhatwada, Aurangabad	Chairman	Chairman	Sarpanch, businessman and farmer	5.30	2.60	NA	NA	Medium
Mahatma Phule, Ozar, Nasik	Founder president-cum-patron	Chairman	Farmer	16.20	3.50	Very well	High	High
Veer Savarkar, Rui, Nasik	Secretary	Secretary	Leader of farmer movement and farmer	0 80	4.20	Very well	High	High
Sri Hanuman, Erandgaon, Nasik	Executive chairman	Chairman	Leader of the farmer movement and farmer	12 00	11.10	Fairly well	High	Medium

ing feature emerging from the Table is that the largest chunk of recovery comes from hot weather crops (58.6 per cent). Next to hot weather is Rabi crops which contribute 31.8 per cent of the recovery. The lowest proportion of recovery comes from kharif crops (9.6 per cent). It is interesting to note that while HW use of water contributes maximum to the government recovery, in most of the project designs there is hardly any provision of hot weather crops and hence rarely any provision of HW irrigation.

There is a snag in the data presented in Table 7. The data refers to a limited period and it also does not tell the position with respect to previous arrears, if any. The detailed data with respect to Sahajivan, (sr no 2) tells a different story. In respect of this WUA, the IMT had taken place on March 1, 1989. The arrears, in case of this WUA during 1988-89 were totalling Rs 7,904 and at the end of kharif 1996-97, the same had increased to Rs 83,508. This includes the period which is covered in Table 7. It would, therefore, be difficult to point out the ultimate recovery position without the arrears position In case of Sahajivan, it is possible that the recovery is 100 per cent only in respect of current water charges levied during 1992-96.

The biggest nine defaulters in respect of Sahajivan have a total arrears to the tune of Rs 35,000. During the discussions at the site, an interesting point emerged that the biggest defaulters were upper reach farmers, while the punctual payers were farmers in relatively tail locations. Among the nine top defaulter, those who owed 63 per cent of arrears were located at the head. Another 21 per cent of the arrears belonged to those farmers who were located at the middle of the command of the WUA. Finally those who owed the recovery of 16 per cent arrears were located at the tail. Another interesting point relating to nine top defaulters was that the top position was occupied by the ex-chairman who owed Rs 15,000 and fourth position belonged to the present vice-chairman who owed Rs 3,000 to the irrigation department

In fact, in case of Sahajivan, most of the members and the office holders are in favour of disbanding the WUA and had approached the executive engineer with a resolution passed in this respect. However, the irrigation department did not favour the dissolution of the WUA because there were very few WUAs established under irrigation department and the department did not want the dissolution of those WUAs which have been established.[3]

An angle from which WUAs need to be examined is whether or not these associations make profit out of water charges collected from the users? The same aspect has been dealt in Table 8 with respect to seven WUAs. First thing that strikes about the Table is that all the WUAs are making profits out of water charges collected/to be collected from the users. The annual profit varies between Rs 7,407 in case of Sriram and Rs 50,798 in case of Sri Datta. The percentage of profit also varies from the minimum 45.9 per cent in case of Laxmi Narsimha to 126.6 per cent in case of Sri Datta. Thus, both in absolute as well as percentage terms, Sri Datta is making maximum profit out of the water charges assessed/collected from the water users. This is a healthy sign because as long as a WUA makes considerable profit out of water charges, they can maintain the subsystem at a satisfactory level. It would have been interesting to examine the position of water charges collected by the irrigation department before the IMT and the ones collected after the IMT. Unfortunately data in this respect is available only for one WUA, namely, Malganga.

In case of Malganga, data for the water charges is available for three years before IMT (1987-90) and for four years after the IMT (1991-95). The average annual water charges before IMT kharif were Rs 3,388 which go up to Rs 5,536 after IMT registering an increase of 63 per cent. During Rabi the average water charges before IMT were Rs 8,193 which go up to Rs 15,954 after IMT registering an increase of 95 per cent. The average water charges for the hot weather before the IMT were Rs 11,285 which after IMT shot up to Rs 28,388 registering an increase of 152 per cent.

During this period (July 1991 to July 1994), the irrigation department made an increase in the water charges per TCM. The important question however is whether or not the kind of phenomenal increase in the collection of water charges witnessed in Malganga would have been possible without IMT. It seems this kind of increase would not have been possible without IMT. However, before a definite answer could be given to this question, more data in respect of government collection from water charges before and after the IMT is needed.

No doubt the WUAs are making profits from the water charges collected from the users. The more important point is what is the overall position of WUAs in relation to profit/loss. In Table 9, the data relating to seven societies have been presented showing the overall position. Looking at the Table, it is found that out of seven WUAs, three are running in loss while four are making profits from Rs 4,632 (Jay Yogeshwar) to Rs 43,363 (Malganga). This position is not very flattering but it seems the picture in respect of serial Nos 5 to 7 is not a normal one. It is so on two counts. One, we have very limited data for the Ozar based three WUAs. Secondly, the balance sheet provided by the chairman of one of the WUAs showed that each of the WUAs were making good profits during 1991-97 and that their total profit together with grants amounted to Rs 2.31 lakh. However, without grants the three WUAs do make a loss of about Rs 2.1 lakh during 1991-97. The other loss-making WUA is Adumbar. In this case, the ICA seems to be very small compared to other associations. Given the small size of ICA, there is every likelihood that this small size is affecting the working in two ways. On the one hand, per ha income would be meagre and on the other, maintenance and management cost per ha will go up.

So far, the WUAs have been discussed in terms of data obtained either from the irrigation department or from the WUAs themselves. As mentioned in the preceding, the author visited the sites of a number of WUAs during October 7-18 in Maharashtra During these visits the author held detailed discussions with the farmers and office holders of theses WUAs. Apart from these, the author jotted down notes based on his own observation regarding the working of these WUAs. Table 10, thus makes an assessment of the working of WUAs visited by the author. The aspect covered in the Table have not been examined so far.

The first thing which emerges from the table is that, whosoever might have initiated action for the formation of a WUA, the one who runs the show has a direct interest in the benefits emanating from it. This is obvious from the fact that those who run the show have good size of land holding. The only exception in this regard is Veer Savarkar. In this case the secretary no doubt owns very meagre land but is an important leader of farmers' movement and is the secretary of two other societies (Sant Gyaneshwar and Baliraja) having offices in the same premises where Veer Savarkar is located.

In terms of working of the associations, it is found that the majority of the WUAs either maintain their records very well or fairly well. Out of eight associations, only two have very poor maintenance of record. In respect of internal democracy among members, it was found that only one

association was lacking in this trait. Incidentally this happened to be so in case of Malganga which is rated as one of the most successful WUAs in Pune region. Equity in water distribution is high in two associations (25 per cent), medium in four (50 per cent) and low in two (25 per cent).

Thus, judging the WUAs from a rather subjective and not easily quantifiable data, it is found that by and large these associations are working quite satisfactorily.

CONCLUSION

The objective of the paper was to make a rapid assessment of the impact of IMT in Maharashtra. Judging Maharashtra's coverage of area under IMT, it is found to be quite good since already in case of 228 WUAs, irrigation management has been transferred to user farmers. Thus, already an area more than 76,000 ha is outside the domain of irrigation department in matters of management. Given this large extent of area, it will be extremely useful to see the impact of this in relation to a number of parameters already mentioned in the paper. Even if it is not possible to measure the impact in terms of all the valid parameters, it is absolutely essential to see the impact of IMT in terms of some key parameters like water used, area irrigated, water charges collected by the government and total income generated by the command area. All these needs to be examined in terms of a comparison of the position before and after the IMT.

Unfortunately, no serious effort has been made to do this comparison except in an ad hoc manner in case of few WUAs which are cited by every one, time and again. Lele in his conference paper (1998) has summarised the findings of some of the studies carried out by him and his colleagues and IIMI and IIM, Ahmedabad teams. But these again suffer from a lack of pre- and post-IMT comparison.

In such a scenario, the author tried to lay his hands on whatever data he could get to provide some impact assessment. Based on whatever data could be collected, it is found that WUAs have generally increased their irrigated area mostly using less water. Even in such WUAs where more water has been used after the IMT, the per unit water use (water use efficiency) is found to be higher after IMT. On another front, WUAs have done exceedingly well and this relates to the revenue coming to the government from water charges. From the data available to us, it clearly shows that the recovery of water charges has considerably improved after the IMT. At the same time, it is found that the WUAs have been charging a much higher amount from their water users. This is a good sign because this will enable the associations to accumulate funds for the maintenance of micro structures relating to conveyance of water at the WUA level.

Another redeeming feature of WUAs is that a majority of WUAs are running in profit. Initially these associations may be doing so on account of management subsidy. However, even such organisations which have been working for over three years and where management subsidy has ceased to exist are running in profit.

Although the assessment made in this paper is not based on wide ranging data, the picture does show WUAs in a favourable light. However, to arrive at a conclusive manner, more focused analysis is needed with respect to the position before and after the IMT in respect of WUAs which have completed at least four-five years after the IMT. It is felt that lead in this respect needs to be taken by the directorate of irrigation research and development, Pune, by doing an analysis of about 10 per cent of the 214 WUAs selected on a stratified random basis. This exercise will go a long way in understanding the impact of the IMT in Maharashtra.

Notes

[I wish to express my gratitude to V W Ambekar, retd director, Agriculture, UP for translating the Marathi terms into English and other suggestions.]

1 The government of Bombay state framed rules in 1947 for the formation of water panchayats. These panchayats were envisaged as intermediaries between the irrigators and the department with some executive functions.

2 In CAD projects a management subsidy is given by GOI to WUAs at the rate of Rs 100 per ha for first two years and Rs 75 per ha for the third year.

3 A retired irrigation engineer who had been involved with IMT experiment in Maharashtra for a long time has evolved a fivefold classification of WUAs. These are: (1) sahib's WUA, (2) pudari/neta WUA, (3) WUA for highly deteriorating minor, etc, (4) anudani (for gaining grant) WUA, and (5) defaulter's WUA.

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Agricultural Trade Policy and Export Strategy

V S Vyas

This paper reviews the performance of Indian agriculture in the context of the development in agricultural trade especially agricultural exports internationally and outlines a strategy for augmenting India's agricultural exports.

A STYLISED version of the changes in agricultural trade pattern during the course of economic development will suggest that with the growth of an economy not only does the share of agriculture in GDP decline so does the share of agricultural exports to the total merchandise exports. As the economy gets diversified non-agricultural commodities acquire greater importance in the product mix, and also in exports. Part of the explanation for the relative decline in agricultural commodities in the developing countries also lies in the rising share of processed agricultural products. On the imports side, with larger share of purchased inputs in the input base of agriculture, the quantum of imports of inputs such as fertilisers, pesticides, farm machinery, etc, rises. However, as the import intensity of agricultural production is low the earnings from exports outpace the outlay on imports. Most of the developing countries maintain a favourable trade balance in agriculture.

India is no exception to these general trends, with a few special features. During last two decades India's agricultural exports as a part of total merchandise exports have continued to decline from the preponderant position they occupied in the pre-independence period and in the early years of independence. Their share in the merchandise exports of the country in recent years (1991-97) ranges between 15 to 18 per cent. But with the achievement of self-sufficiency in foodgrains and some other major agricultural commodities, which used to account for a large portion of the import bill, the overall imports of agricultural commodities have sharply declined. The outlay on agricultural imports as a proportion of earnings from agricultural exports has progressively declined, and the overall balance has become progressively more favourable.

Contribution of agricultural exports to foreign exchange earnings is critical for a country such as India which faces a chronic balance of payment problem. With the growth in economy, specially with the growth of more import intensive sectors such as 'industry' the need for foreign exchange earnings from agricultural exports becomes increasingly more important. Expanding export opportunities also mean bigger markets and higher value for their output. However, while thinking about exports of agricultural commodities in a poor country like India the implications of export growth on domestic availability of agricultural produce, especially the foodgrains, cannot be overlooked. The moot question, therefore, is: how to augment export earnings without jeopardising the basic objective of food security. Discussion on these issues has, naturally, to take into account the new trade regime evolved after the Uruguay Rounds as the stated objective of the trading partners is to achieve economic efficiency and international competitiveness through increased reliance on market forces.

In the first part of my presentation I will briefly introduce the external economic environment obtaining in the recent years, more specifically after Uruguay Rounds. In the next part I will review agricultural trade policy as it has evolved in our country in the recent years and account for the important factors which have shaped the policy. I will also examine whether there is a need for any major shift in this policy. In the third part, I will look into the developments in agricultural trade specially the agricultural exports at the world level in the recent years and discuss the performance of Indian agriculture in this respect. In the fourth and final part, I will try to spell out the ingredients of a strategy to augment agricultural exports in the changing, and more demanding, global economy.

I
External Environment

The economic environment for agricultural trade is changing in a remarkable way due to changes in the domestic policies as well as in international trade arrangements. A number of scholars and practitioners have commented on the move towards the policies on liberalisation and globalisation and their implications for agriculture in our country [Bhalla 1994]. I will briefly touch upon the developments at the international plane and their implications for the agricultural trade. The international developments relevant to agricultural trade are taking place at tw levels. One, several groupings of th countries are emerging with the objecti of forming unified trade blocks, startin from EEC and ASEAN to more rece attempts at forming North American Fr Trade Agreement (NAFTA) and Sou American Free Trade and Agreeme (SAFTA) and, of course, South As Association of Regional Co-operatic (SAARC). Second, and probably mo important, development is the signing various agreements as a result of th Uruguay Round of trade negotiations. shall comment on the latter of these, tw developments mainly because the Urugu Round has now more or less univers coverage in terms of the countries agreein to its covenants. Also, because vario trade blocks would, hopefully, converg on a global trading system initiated by th Uruguay Round.

The significance of the Uruguay Roun agreements can be appreciated once it i recognised that for the first time agricultu is brought under the General Agreeme on Trade and Tariff (GATT) disciplin Until the present round of trade negot ations the contracting parties to GATT ha reconciled to a waiver on agricultural trad obtained by the US, which was also use by all other countries. The situation h changed, ironically, at the instance of th US which, in fact, pleaded for comple removal of all interventions in agricultu (the so-called 'zero-option'). The proposal to bring agriculture under GATT discipline evoked a responsive chord in several countries which were concerned with the rising burden of subsidies in their budgets.

After lengthy and tortuous negotiations under the Uruguay Round, agreements have been reached on several important areas. These include: (a) reduction in farm subsidies; (b) enhanced market access; (c) limits on public stock holdings of grains for food security; (d) sparing use of sanitary and phytosanitary import barriers; and (e) introduction of intellectual property rights.[1]

It is relevant to note here that the industrially developed countries made commitments in regard to all these provisions, and gave an assurance that concrete steps

would be taken between 1995 and 2000 to redeem their obligations. For the developing countries the implementation period is longer and the extent of reforms is less demanding. Special provisions have been made in favour of the least developed countries. Provisions have also been made to assist heavily importing countries to tide over the difficulties during the transitory period and to reduce possible negative effects of trade liberalisation on these countries.

The Uruguay Round agreements are a milestone in the development of the international trade in agricultural commodities. However, the exact outcome of various provisions of the agreements on the developing countries is difficult to foresee; partly because of great complexities of provisions and instrumentalities in the agreements which could subject it to a variety of interpretations. Even the highly simplified version which I have presented will not permit one to arrive at a definite conclusion on the net outcome of the agreements. This is mainly because a lot depends on the developed countries subjecting themselves to the implicit discipline of such agreements. Taking a more optimistic view, and making some heroic efforts, a few scholars have tried to foresee the results of these agreements on *a priori* grounds [Anderson and Tyres 1990; Goldin et al 1993; Brandao and Martin 1993]. Not surprisingly, they have not come up with a unanimous conclusion

One may speculate, again on a priori grounds, on the likely effects of the agreements on the agriculture of the developing countries. In spite of all the loopholes, it is quite likely that the agreements will help in reducing the amount of subsidies enjoyed by the agricultural producers in the developed world. This would mean that the price of agricultural commodities produced and traded by the developed countries will rise in the international market place. Since the bulk of agricultural production in these countries is accounted for by (temperate) foodgrains, especially cereals (and there too, mainly, wheat and corn), prices of cereals are likely to rise. If we were to continue as wheat importers this could result in an inflation-induced demand for wage rise, and would have deleterious effect on the pace of industrialisation. On the other hand, this would also act as an incentive for the domestic food producers to embark on production-raising efforts. The net outcome will depend on the supply elasticity of foodgrains production. The latter is high in the situation of developed infrastructure, stock of relevant technology, and efficient market institutions. Developments in these areas, even in the best of circumstances, will take some time. In the interim, the developing countries, particularly the food importing ones, will face an economic bind. The steps which are necessary not only for short-term relief, but also for equipping developing countries, including ours, to take long-term advantage of a liberal international trade regime in agricultural commodities should, in my view, include the following:

(i) Macro economic reforms which discourage high tariffs and overvalued exchange rates are beneficial to agricultural trade and need to be continued.

(ii) Adjustment of agriculture to a more liberal and global economy should be attempted carefully. A firm beginning could be made by domestic economic reforms, especially by encouraging liberalisation, deregulation and de-bureaucratisation within the country.

(iii) Implicit taxation of agriculture through price discrimination should be avoided. International prices could be used as referral for this purpose, although no sanctity need be attached to the border prices.

(iv) Nothing should be done to impair food security and poverty alleviation efforts in the process of economic reforms. Adjustment in the food sector should be gradual and non-doctrinaire.

India together with other developing countries should develop GATT consistent instruments to protect our interests. This is important because the next round of trade negotiations are on anvil, and we should not be caught unprepared [Vyas 1994].

II
Agricultural Trade Policy

India like several other large countries is not an export-oriented economy. This is particularly true of agriculture. In recent years the ratio of agricultural exports to agriculture GDP has seldom exceeded 3 per cent. This in itself is not a disqualification. Nor, if the example of the African countries is an indication, is a high export to GDP ratio a blessing in itself. The importance of exports as an economic activity has to be judged by the objectives it serves.

India's foreign trade regime till the reforms initiated in 1991 was primarily dictated by two important considerations, a quest for import substituting industrialisation and concern for dwindling foreign exchange resources. The major instruments used to implement these policy goals comprised quantitative restrictions, heightened tariffs, surcharge on imports, rebate on exports and severe restrictions on foreign exchange transactions. There were phases in which these provisions were relaxed. Yet the basic characteristics of an inward looking import substituting policy frame remained more or less intact [Srinivasan 1998]. The instrumentality of canalising a large part of exports and imports reflected the other element of developmental thinking, i e, an implicit distrust of the private sector and an implicit faith in the bureaucracy to achieve the stated goals of development.

All these ingredients of overall trade policy applied to agricultural trade, especially till 1966-67, i e, the second year of serious droughts of the mind-1960s. Till then agricultural trade was also subjected to a regime of quantitative controls and other state interventions to conserve foreign exchange. However, while in industry the policy of import substitution was clearly manifest, in agriculture the trade policy was designed to pursue twin objectives of food self-sufficiency and promotion of exports of the so-called 'commercial crops'. In regard to regulation and control, agricultural trade was no exception. The role of State Trading Corporation (STC) and the co-operative federations was emphasised as canalising agencies for agricultural exports. Public sector agencies were given an equally important role in the imports of inputs, particularly fertilisers and chemicals.

In the second phase, starting from the mid-1960s this policy was pursued more rigorously, and food self-sufficiency became the corner stone of the development strategies in agriculture. Two severe droughts, in 1965-66 and 1966-67, and the difficulties in importing foodgrains from food surplus countries – mainly the western countries – forced the policy-makers to opt for a policy of food self-sufficiency. Normally, an import substitution policy leads to high unit cost of production. However, mainly because of the availability of a high-yielding technology in cereals, not only was the food self-sufficiency achieved, the country could bridge the gap between demand and supply of foodgrains without raising the real cost of production, a fact which is generally not appreciated. In fact, along with higher yields the unit cost of production of superior cereals came down and benefits of growth in productivity could be shared by the producers (in terms of higher income) and consumers (in terms of stable prices) in an equitable manner [Vyas 1990].

This policy continued till 1991. Since then some questions have been raised about

pursuing the policy of food self-sufficiency. It is now suggested in some quarters that there is enough justification for opening up the food sector to international trade based mainly on the considerations of comparative costs, the latter reflected in the border prices.

The strategy of food self-sufficiency is being challenged mainly on three groups. Firstly, it is suggested that with the new economic regime brought in by the Uruguay Round of agreements, developed countries will also have to withdraw subsidies for agricultural products and, therefore, there will be a level playing field, and existing distortions in agricultural trade will be removed. Secondly, it is now generally accepted that food security means entitlement to food and, therefore, if the country can earn foreign exchange, import comparatively cheaper foodgrains and distribute it equitably, the country as a whole as well as the poor will benefit more. Thirdly, it is suggested that unlike in the 1950s and the 1960s when foodgrains surplus was mainly concentrated in the US and a few other developed countries there is more widespread distribution of tradeable quantities of foodgrains. There is hardly any country which is in a monopolistic position. In any case, it is argued, with big players in the foodgrain marketing, i e, the large multinational companies, governments' capacity to dictate trade pattern on political considerations has considerably weakened.

While there is a compelling case for instituting a liberal trade regime in agricultural commodities, there are certain key considerations which cannot be wished away. Agricultural commodities can be broadly divided into two categories, food crops and non-food crops. The distinction between the two is not firm but understandable. There is an established policy of encouraging exports in commercial crops, and it has to continue. There are, however, several reasons why the policy of food self-sufficiency which largely applies to self-sufficiency in principal cereals, i e, wheat and rice, has to continue. The major considerations justifying self-sufficiency in principal foodgrains are the following. Expenditure on foodgrains, mainly cereals, accounts for over 40 per cent of the expenditure of the bottom one-third of India's population. Any fluctuations in foodgrains prices will result in undue hardship for this section of the population. Price elasticity with respect to prices of cereals was estimated at –0.493 for the very poor and –0.409 for the poor in the rural areas. Corresponding figures for urban areas for the two groups of the poor population are –0.313 and –0.166 [Radhakrishna and Ravi 1992]. It is now well established that international prices are far more volatile than domestic prices [Nayyar and Sen 1994; Bhalla 1994]. Therefore, allowing foodgrains imports to any sizeable extent will be tantamount to importing price instability.

It is not only as consumers but also as producers that the poor have a stake in maximising foodgrains production. The bulk of the poor are in the rural areas. Their livelihood depends on the growth of agriculture. Currently, foodgrains occupy nearly 68 per cent of the cropped area and account for the same weight in output. There is a gradual shift in production from foodgrains to non-foodgrains in which, presumably, poor cultivators are also participating. However, the agricultural economy, particularly the economy of the small and marginal farmers is not resilient enough to enable poor farmers to make drastic switches from food crops to non-food crops within a short period. The switch from agriculture to non-agricultural production will be even more slow and gradual.

On the supply side, it has to be recognised that the foodgrain surpluses in food exporting surplus countries are not adequate to meet the demands of the large countries like India and China to any measurable extent. India's food requirements by year 2000 are expected to be in the order of 210 (209.4) million metric tonnes [Kumar and Mathur 1997]. The wheat requirement alone is estimated at 71 million tonnes and rice requirements at 88 million tonnes. The production of wheat in 1995 was estimated at 60.8 million tonnes and of rice at 78 million tonnes. If production of wheat and rice were to be frozen at the 1995 level, and the rest were to be imported, we will have to import not less than 10 million tonnes of rice and wheat each by the year 2000. On the other hand, global cereal stocks have declined to 14 per cent of the estimated consumption requirements in 1995 96. FAO considers 17 per cent of stocks as critical minimum, i e, a safety-margin for world food security. In the last year or so world stock of cereals have improved, but still remains below the safety level of 17 per cent [Pinstrup-Anderson, et al 1997]. With progressively larger demand from China,[2] and disruption in cereal production in former Soviet Union, any rise in India's demand for cereals would result in a rapid increase in the cereal prices. Thus, there is no escape from encouraging foodgrains production in the country, at least for the coming few years. The imports of more than a marginal quantity does not provide a viable solution.

A question which is not directly addressed is whether the food surplus-developed countries have the capacity and the economic rationale to keep increasing their exportable surpluses in foodgrains. More so, once the prop of subsidies is gradually withdrawn under the new international trade regime. Unfortunately, we do not have any systematic study on the supply response of foodgrains in developed countries. Unless one assumes that agriculture has, and will continue to have, comparative advantages over, say industry, in these countries, it is unrealistic to assume that developed countries can be relied upon to meet the progressively enlarging demand for foodgrains of a country such as India by putting more resources in their agriculture and without seriously escalating the prices.

The other major consideration is the availability of foreign exchange to meet foodgrains imports. The exportable surplus of foodgrains, particularly wheat is still concentrated in five developed countries, the US, France, Canada, Australia and Germany, which accounted for nearly 73 per cent of the total exports of wheat in the triennium ending 1995. The situation is better in the case of rice as all major exporting countries, except the US are from the developing world. The country will have to augment its foreign exchange earnings manyfold to enable it to import foodgrains, especially wheat. Even if foreign exchange resources are available, there are much better uses for these resources, e g, in the imports of industrial raw materials, etc. So long as the other 'commercial crops' do not generate measurable foreign exchange surplus, over and above the cost of imports of agricultural inputs the country cannot afford to divert foreign exchange resources to import large quantities of foodgrains. Lastly, the political implications of dependence on imports of foodgrains, most of which have to be brought from the developed countries, should not be underestimated. The post-Pokharan sanctions have once again reminded us that we are living in a unipolar world in which one country has a decisive voice.

There is no escape from expanding foodgrains production domestically to meet the basic requirements for food. Marginal imports of food, say, one to two million tonnes in the total requirement of 200 million tonnes does not vitiate the above arguments. Nor does a 'switch' trade of a few hundred thousand tonnes go against the tenets of food self-sufficiency.

However, food self-sufficiency is not a matter of faith. We can review the policy when the following conditions are met:

(i) When expenditure on food becomes a minor part of the consumers' budget, especially the budget of the poor;

(ii) When food production does not remain the main source of livelihood for the small and marginal farmers;

(iii) When non-food exports become sufficiently buoyant to generate enough foreign exchange surplus;

(iv) When the country has enough buffer stocks to ward off any significant price fluctuations imported from external sources; and

(v) When there are numerous and assured sources of supply to cope with any sizeable short-fall in domestic foodgrains production [Vyas 1994].

III
Prospects of Agricultural Exports

All this does not minimise the need for augmenting exports. Traditionally plantation and the fibre crops occupied the primary position in the agricultural exports of our country. Cereals, and in the later years oilseeds, occupied a dominant position in the imports. From the beginning of the planning era a two-pronged approach to the international trade in the agricultural commodities became evident. The major thrust of the policy was towards imports substitution in the foodgrains area. As against this, non-food commodities, which in common parlance are referred to as 'commercial crops' were identified for export promotion. As I have mentioned earlier, there were justifications for two different norms in relation to these two commodity groups.

Important changes are taking place in the demand and supply of foodgrains in our country which has prompted some people, who are willing to accept the strategy of food self-sufficiency in the time of foodgrains deficit, to question the same strategy once we have foodgrains surplus. They advocate that India should not aspire to become a major foodgrains exporter. This position also needs to be examined carefully. It is suggested that for following reasons, we may have exportable surplus in foodgrains:

Although the rate of growth in foodgrains production in the 1990s is slower compared to the rate of growth in the 1980s it is still ahead of population and income-induced demand for foodgrains.

The intake of foodgrains in general and cereals in particular is at a much slower pace than was anticipated by the planners. As a result margin between the availability of cereals in relation to demand, year to year fluctuations notwithstanding, is widening with foodgrains supply outpacing the demand.

The real cost of buying a kilogram of foodgrains, say wheat, is lower today than it was earlier. This suggest that slackening of demand is not due to higher prices but due to a change in the structure of demand; latter induced by the growth in income as well as by non-economic factors, such as urbanisation.

Surplus of supply over demand is particularly noticeable in the superior cereals, i e, wheat and more particularly in rice, mainly because of the availability of high-yielding technology in these crops. This technology is not yet fully exploited and one can expect a further increase in the output of these crops.

If the exports of cereals is considered as 'residual' after meeting the domestic demand on the grounds I have argued earlier, then the case for an export initiative in foodgrains will hinge upon the emergence of genuine surplus in the grains. Without dependable 'surpluses', at this stage of development, it will be premature to give a go-bye to the policy of food self-sufficiency. Thus, in order to launch a strategy for exports of foodgrains first we must ensure that there would be distinct possibility of surplus emerging in the foodgrains sector. Assuming that the rate of growth in foodgrains production will continue at the rate of 3 per cent per year or so, which given the nature of domestic demand will be adequate to meet our foodgrains requirements, what should be our strategy for the disposal of surpluses in the foodgrains sector? For this purpose we need to look into the possibilities for each of the major cereals separately.

A carefully done study has shown that we do not have any comparative advantage as wheat exporters [Reddy and Badri Narayanan 1992]. Besides, as I have mentioned earlier the competition for this crop will be provided by the traditional wheat exporters, i e, by the developed countries such as the US, Canada and Australia. True, compliance to WTO conditionalities may blunt their competitive edge with progressive withdrawal of subsidies, there are various ways in which they could support their wheat producers and make it difficult for us to compete.[3] In case of wheat if we have genuine 'surplus' after meeting our domestic demand, we should encourage diversion of resources to other competing crops, or out of the agricultural sector, rather than embark on a quest for becoming a major wheat exporter.

We have distinct advantages in rice, and can emerge as moderate exporter of rice. It is one of the few agricultural commodities where the domestic and foreign price ratio has remained in country's favour in recent years [Reddy and Badri Narayanan 1992]. At the same time we should recognise that marketable surplus in rice is limited, and the price elasticity of rice is very high [Kahlon and Tyagi 1983]. In the major rice growing states, the existing inverse relationship between size of farms and area under rice does not promise a substantial marketable surplus. This means that a small drawl from the domestic markets would give rise to disproportionately high prices. Rice is the staple food of the majority of the people. Even a small rise in the price will affect the living standard of the large, vulnerable sections [Chellaraj et al 1992].

In order to establish ourselves as rice exporter and at the same time to safeguard food security of the rice consuming population in the country we need to develop a different strategy. While continuing the export of basmati rice targeted mostly to West Asia, and to NRIs in Europe and the US we should recognise that there is a limit beyond which we will not be able to export basmati and other fragrant varieties. The real market for rice is in south east asian countries, eg, in Indonesia, Malaysia and Philippines and in east asian countries, i e, Japan and South Korea where rice is the staple cereal. It seems that the principal rice exporter to these countries, ie, Thailand has reached a plateau in rice exports [Chaowagal 1996] while the demand for rice in the countries listed above is slowly but steadily rising.[4] Further, the rice markets in Japan and South Korea which were till recently virtually 'locked up' are bound to be opened. If we want to be a major player in the rice market we should develop varieties which are preferred by the consumers in these countries and then market them vigorously. Even with inadequate preparations we could market more than three million tonnes of rice in 1995-96, admittedly due to fortuitous circumstances. There are distinct possibilities of raising the exports to a couple of million tonnes, if we look into the problems and issues in rice exports in a systemic perspective [Datta 1997].

The other cereals, i e, barley, maize and millet are used mainly as cattle feed in the developed countries. Barley and maize are also demanded as industrial raw materials. Demand for these cereals is increasing much more rapidly than for rice or wheat with increasing share of animal products in human diet in the developed as well as

in developing countries. However, with low productivity we do not have competitive edge in these cereals. If we wish to tap the expanding cattle feed market in the world we will have to raise productivity in these cereals and also change to varieties to suit international demand. In India these cereals are grown mainly as food crops by small farmers and mostly on infertile lands. Progressively more and more area under these crops should be brought under varieties which are suitable as cattle feed. Technical possibilities of raising productivity level in these so-called 'inferior cereals' are high. High-yielding varieties are being developed in maize in collaboration with CIMMYT. We have developed our own high-yielding varieties in millets. These varieties need to be given as much importance in our extension efforts as high-yielding varieties of wheat and rice received in the hey-days of green revolution. There is an added advantage in increasing productivity in these crops in terms of equity, as these crops are, generally, grown by the poorer sections of cultivators and in backward regions. An increase in their productivity, and in value, will benefit disadvantaged sections. Already, due to the prospects of good market and higher prices, large areas are being diverted to high-yielding irrigated maize. This tendency should be encouraged with an eye on generating surpluses for exports.

The second group of commodities to be considered as thrust area are our traditional export commodities, namely, tea, coffee, cotton, oilseeds and cakes, tobacco and sugar. Among these commodities both tobacco and coffee have a dynamic demand. We have not been able to make full use of this surge in demand because of low productivity. There is need to earmark these crops, especially tobacco, as special crops for exports. Tea which is still one of our important export commodities is stagnating in the international markets both in terms of prices and quantities. This is partly due to the demand factors – international demand for tea is lagging behind the demand for other beverages, especially coffee, at the same time domestic demand for tea is rapidly increasing – but mainly because we have not been able to impart efficiency in production and marketing of tea as much as some of our competitors have been able to do [Chiranjeevi 1994]. India should continue to aspire and work for a leadership position in this crop.

Among our traditional agricultural exports two commodities, namely, cotton and sugar are problem ridden. This is mainly because of uncertainty and fluctuations in the production. The uncertainty is further exacerbated because of ad hocism, if not due to the pressure from powerful vested interests, in designing the export policies. Without stabilising the domestic supply base there is no point in emphasising sugar as an export commodity. Unless a base of assured supply is created it will be difficult to compete in the international market. In case of cotton possibility does exist to keep our presence in the international markets [Acharya 1996]. However, in order to exploit our comparative advantage in this commodity, we have to minimise wide year to year fluctuations which are induced as much by natural phenomena as by the inept export policies.

In refining our export strategy more important considerations should be given to what we may call the 'dynamic commodities' in international trade. To identify such commodities I have looked into the growth of world exports in different commodities during the period 1989 to 1995. Among the major agricultural commodities which have shown high rate of growth, the following are notable: Tobacco unmanufactured, milk and milk products, rice, fruits and vegetables, coffee, soyabean and soyabean oil, oilseeds, cakes and meals.

India's share in these commodities is very small except in two commodities, namely, tea and rice. besides, India accounts for nearly 8 per cent of world exports in oilseed cakes. In rest of these 'dynamic commodities' our share is negligible, in many cases non-existent. On the other hand most of our traditional exports, except rice (which in any case is a new entrant in agricultural exports) are stagnating, if not declining.

If we want to make our agriculture exports a major plank of export strategy it is important to concentrate on the commodities which constitute the dynamic group, especially those as milk and milk products where we have distinct comparative advantages. India is the second largest producer of milk. In terms of resource use efficiency, its cost of production is the lowest among the major dairy producers except New Zealand. However, as I will try to indicate later the low cost of production is only one of the factors to impart a competitive edge. There are equally important questions of quality and reliability

Export operations are essentially private sector operations. Traders in agricultural commodities will always seek opportunities to make profitable deals. So long as their interests do not conflict with wider national objectives they should have fredom to do so. It was not my intention to narrow down the list of exportable commodities. My purpose was to illustrate some of the key considerations which government should keep in view while developing an export strategy. To summarise, following could be used as guidelines:

(i) Commodities such as cereals deserve an export thrust only after the domestic demand is satisfied.
(ii) Commodities with large fluctuations in the supply or in prices (cotton, sugar) should be traded with caution, unless compensatory mechanisms are put in place, such as forward trading to compensate for the risk and uncertainty.
(iii) Commodities where we have dynamic comparative advantage, such as fruits and vegetables (because of diverse climate and soil conditions), and dairy products (because of large cattle herd and low cost of production) should receive special attention.
(iv) The varieties which have expanding world markets (rice for the east Asian markets, millets for cattle feed, and maize and barley as industrial raw materials) should be given high priority in our export strategy.
(v) There should be some consistency, and long-term thinking, while designing the export policy. An ad hocism or surrender to vested interests (sugar and cotton export policies illustrate) can do severe damage to our export prospect.

IV
Elements of a Strategy

India's export efforts have to be made in an environment which is characterised by progressively more openness and competition. Corollary to that is the need for customer orientation, quality consciousness, timeliness and reliability, and, of course, competitive prices. Indian exporters of agricultural products have to go a long way to establish their superiority on these counts. Some of the important aspects which deserve special attention are as follows:

One of the major handicaps faced by Indian exporters is the lack of information on the key aspects of exportable commodities and relevant developments in the export markets. The exporters may be able to gather partial, and not necessarily accurate, information on prices, supplies and demand for the commodities they are dealing with, and may have some general

idea about the cost of ancillary operations in transport and handling. Such partial and inaccurate information is not a substitute to timely, comprehensive and systematic information. As far as the agricultural producers are concerned their information on these matters is minimal. Even the policy-makers are not fully aware of the developments in our client countries where we may have interest either as exporters or as importers. We do not have systematic collection of relevant data; most of our information is based on the newspaper reports or on routine dispatches from the concerned sections of the embassies. There is a need to have a nodal point both at the centre and in the states for collecting and collating all relevant information for the commodities in which we wish to play a role. Equally important is the dissemination of this information. In this respect the agricultural marketing boards and committees, which many of you are representing here have a significant role. The linkage between the nodal agencies at the centre and the states and the marketing committees at decentralised levels has to be firmly established.

Agriculture is becoming progressively more knowledge- and skill-based activity which also gets reflected in agricultural trade. If we want to make a dent in agricultural exports we should ensure a firm support from agricultural research and technology. Part of the reason of our losing grounds in our conventional export crops, say tea, is the stagnation in productivity. When it comes to the newer products, apart from a high level of productivity the need for encouraging specific qualities in the products becomes important. As I have mentioned earlier, if we want to be a major exporter in rice we have to think in terms of developing varieties which are preferred by the south-east Asian and east Asian countries. Similarly, we have to develop the maize and barley varieties which can be used profitably as industrial raw material. There is an equally urgent need to develop varieties in millets which can serve as good cattle feed. Without a proper research base it will not be possible for us to play a significant role in the emerging markets. But with proper research support the possibilities are immense.

Generally, it is proposed that if we want to have a competitive position in agricultural exports we will have to revise our norms of land ceiling. It is contended that only large farms will be able to give the output of desired quality, uniformity, etc. This is a false notion. Nowhere in the world the large farmers enjoy superiority as primary producers. In most of the circumstances there is an adverse relationship between size and productivity; in some very special circumstances the primary production may be neutral to scale. It is true that most of primary products need proper handling, sorting, grading and initial processing particularly when they have to be exported, and these operations have scale economy. The solution is not large farms but specialised agencies to do precisely these tasks. In a very large number of countries where such products as fruits and vegetables or dairy products are exported in bulk the primary production is left to the small producers, but there are organisations at the secondary level which bring in the required degree of expertise and specialisation.

Through various arrangements ranging from co-operatives to contract farming the small farmers can contribute to agricultural surplus without being dispossessed of their meagre land base. Examining these possibilities at the instance of FAO, by looking into the co-operative arrangements for processing in a large number of countries in Asia, Europe and America, we found that with proper organisational support at the secondary level size of operational holding was not a handicap even for the sophisticated products [Vyas and Kruse-Rodenacker 1974]. Within our own country the success of the dairy industry as well as the sugar industry illustrates this point. What is required therefore is to organise appropriate secondary organisations and equip them with adequate resources and expertise. At the same time the arrangements which these agencies make – be they public, private or co-operative organisations – with the primary producers have to be open, transparent and mutually beneficial. A two-tier organisation for production and processing of exportable agricultural commodities is a practical solution which will prove economically viable, and will not jeopardise the interests of the small producers.

Exports of, what I have described as 'dynamic commodities', eg, fruits, vegetables, dairy products, flowers, fish products, etc, while present an exciting possibility is not going to be a cheap proposition. Substantial investment in infrastructure, starting from roads and communications to the warehouses and cold storage facilities, together with the investment in human resource development, has to be made to get a competitive edge. Export-oriented agriculture is going to be fairly capital-intensive. The encouragement to private sector for investment in infrastructure facilities, particularly in warehouses and cold storages, etc, is needed, and the handicaps faced by th private sector in these areas have to b removed. However, the government canno abdicate its responsibilities. The invest ment in infrastructure creation should b considered as a part of export strategy.

With the signing of WTO agreement it will become progressively more difficul for the developed countries to impos quantitative restrictions or place high tariff They however can take recourse to non tariff measures, mainly on the ground o quality. It is important therefore that th Indian exporters must be fully aware o the standards accepted by the internationa importers and should have mechanism introduce these standards right at th primary level. Our record in this respec has not been always inspiring [Achary 1996]. Again, there is a role for agricultura marketing organisations to contribute t the establishment, and compliance, of th rigorous quality standards on which th prospects for exports are vitally dependent The Uruguay Round agreements hav sanitary and phytosanitary provision which the exporters are supposed t comply. Steps should be taken to mak producers, traders and exporters aware o the health and safety standards impose by different countries.

Let me conclude: Because of the divers climatic and soil conditions and a enterprising peasantry as well as a tradin class, India has the necessary qualification to emerge as a leading exporter of agricultural commodities. The external climat is favourable. It is important now to desig a strategy which should give us benefit o external trade without jeopardising th basic goals of food security and povert alleviation.

Notes

[This is a slightly revised version of the presidentia address delivered at the XII Annual Conferenc of the Indian Society of Agricultural Marketing.

1 I have discussed these agreements in somewha greater details in a paper I had prepared fo the Asian Productivity Organisation's Stud Meeting on Agricultural Trade Policy in Asi Pacific [Vyas 1996].

2 An IFPRI study concludes that by 2000, China' import of foodgrains is expected to reach 24 million tonnes. Increasing imports arise mainl from the accelerated demand for meat an foodgrains and continued slowing of suppl [Huang et al 1997].

3 Ways to defeat the purpose and objective o the Uruguay Round of agreements could includ resort to anti-dumping and similar provision just to defer the agreed tariff reduction; mi up environmental protection and wages an labour standard issues with trade policy; objec to the use of several chemicals which are no used in temperate countries but may be useful and harmless, in tropical countries, undermine

the global convent by unduly emphasising regional trade agreements, such as NAFTA.

4 However, the position of Vietnam and Myanmar as important rice exporters should not be underestimated.

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Regulating Transgenic Plants in India

Biosafety, Plant Variety Protection and Beyond

A Damodaran

This article argues for viewing the issue of regulation of transgenic plants in India from both the economic and biosafety angles. The article argues that transgenic products could meet with resistance from the market place in India due to complex patterns of demand amongst farmers for new cultivars. This aspect coupled with the policy and law framework have the potential of providing adequate checks and balances on oligopolistic tendencies of biotech companies, transnational or domestic. Also discussed are certain lacunae in India's policy-legal framework which need to be addressed for converting the potential into realisable results.

DEBATES on genetically engineered plants and foods were originally triggered in the west by biosafety concerns. It took some time for these debates to progressively mature to consideration of social and economic ramifications of genetic engineering and transgenic plants. By comparison, the recently engendered controversy over the B_t cotton trials and the terminator gene in India has managed to cover a wider canvas whereby both the biosafety and the economic ramifications of the technologies have been addressed. Media reports about the two controversies in India have not only focused on the possible biosafety aspects associated with the two developments but have also covered the impact of the technologies in terms of Monsanto's changing economic fortunes. Nevertheless discussions on the economic implications of transgenic plants in India have not been well-focused. This article accordingly attempts to address the economic issues inherent in commercialisation of transgenic technology and proceeds to argue that market demand 'incoherence' could perhaps form a barrier to transgenic plants in Indian agriculture. It also explains how India's policy and law framework could, in addition, provide adequate safeguards against negative effects of 'transgenic' business, provided the framework is properly articulated and efficiently implemented.

I
Transnational Economic Logic of Transgenic Plants

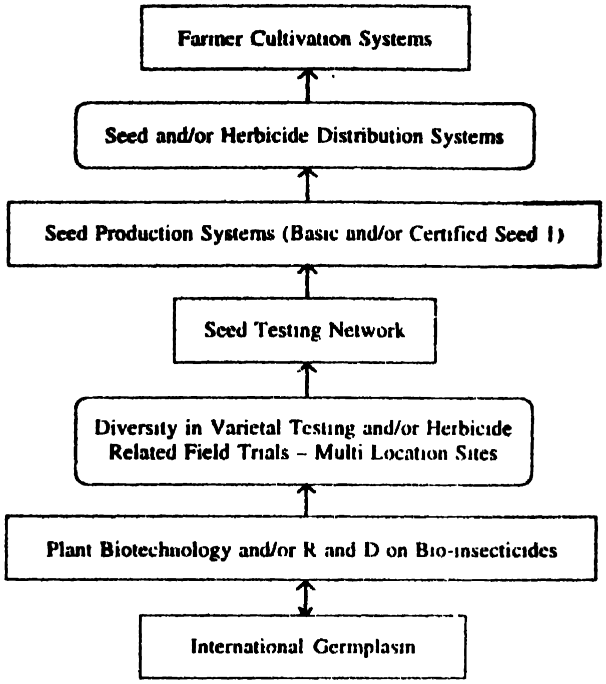
One feature of the debates on the B_t cotton trials and the terminator gene in India has been its major focus on the impact of these technologies on biosafety. Media reports in India while discussing the relative merits and demerits of the B_t cotton trials and the threats posed by the terminator gene have also been pouring out stories of how Monsanto, which began on an obscure note in 1901 in Missouri, US had transformed itself into a world 'power' in the field of biotechnology, herbicides and seeds business by the turn of the 1980s. The story of this transformation does not come as a surprise to biotech-watchers as they see the change as a logical adjustment process adopted by major biotech firms for overcoming their economic teething problems. Faced with a situation of insignificant market share for its products and stiff competition from conventional industries such as chemicals, biotech industries had to acquire a distinct economic shape.

Despite great progress in biotech research during the 1970s world trade in biotechnology products (excluding alcoholic beverages and cheese) accounted for just \$ 20 billion in 1981. This paled into insignificance compared to the value of \$ 200 billion in traded products achieved by the traditional chemicals industry [Hacking 1986:15-16]. The fact that plant biotechnology was at its infancy in the 1970s in the growing biotech industry, can be gauged by the fact that trade in genetically engineered seeds formed only one-sixth of that of alcohol beverages in 1981 [Dunhill 1981 cited by Hacking 1986] which formed the chief biotech product traded in the world during that year. The slow progress of molecular biology until the early 1980s was a major factor inhibiting progress in plant biotechnology. By mid-1980, following the wonderful strides made by genetic engineering and in particular molecular biology, plant biotechnology made rapid advances. The plant patents legislation and plant varieties protection legislations in Europe and the US modelled on the UPOV Convention, gave a tremendous degree of protection to this infant industry. But 'market' size was still a stumbling block [Hacking 1986:271].

The market for the bacterial insecticide Bacillus thuringiensis was controlled in the 1980s by three players, viz, Abbott, Sandoz and Solvay. However this product was turned out by these companies in multi-product plants as the market was never large or lucrative enough to justify the construction of a new plant dedicated to the production of B_t bio-insecticide [Hacking 1986]. As Klausner (1984) estimated, B_t pesticides were 20-25 per cent more expensive than comparable chemicals and up to 10 times more expensive to spray than DDT or other chemical pesticides used against mosquitos [Lisansky 1984]. If the superb cost competitive edge enjoyed by DDT was lost, it was on account of the introduction of environmentally sensitive pesticide legislations in Europe and the US that banned the use of DDT and BHC in the 1980s and shut out imports of agriculture commodities having residual traces of these chemicals.

The high relative cost of hi-tech bacterial insecticides like B_t coupled with the necessity to achieve economies of scale led to horizontal and vertical integration by aggressive players during 1970s and 1980s. A process of mergers and acquisitions by 'lead companies' ensued. While until the early 1980s the trend was for biotech, seed and agro-chemical companies to operate as 'distinct' but connected entities in reaching their services to their clients, the situation changed as companies like Monsanto that specialised in 'chemicals', successfully attempted to get in and consolidate their position in the biotech sphere through a process of horizontal and vertical integration. In the process, chemicals and biotechnology industries involved in fundamental research got to move closer to seed companies that specialised in testing, production and distribution of seeds of improved plant varieties. Transgenic technology, an integral but dynamic part of the plant biotechnology industry, also followed the logic of concentration of capital achieved by horizontal and vertical integration.

FIGURE 1: POSSIBLE STRUCTURE OF INTEGRATION PROPELLED BY PLANT BIOTECHNOLOGY



Whether this logic met with operational success or not is a separate issue.[1]

The economic logic for the integration process of the type described stemmed not only from market-related factors but also from the high-risk nature of these enterprises specialising in biotech research. Genentech, one of the pioneer biotech companies based in the US did not have a happy experience with its offer of shares to public in 1980 at $ 35 per share. Though within months the same shares shot up to $ 85 per share, the capital value also sharply went up from $260 to $660, which proved to be clearly unsustainable. A collapse in value followed. Since Genentech, 60 companies in the US which went public, also had to undergo sharp fluctuations in share prices due to public perception of these shares companies being hi-tech and high risk ventures. Venture capital and equity formed the chief sources or method of raising capital by US-based biotech companies in the 1980s [Hacking 1986:250-52].

Armed with strengths provided by the integration process, plant biotech companies adjusted well and adapted swiftly to the changing protection regimes for their products induced by withdrawal of patent cover on their products. For example, until the removal of patent cover in 1987, the herbicides Lasso and Roundup were amongst Monsanto's flagship products. By 1987, when the patent on Lasso had elapsed, ICI and BASF had stepped in with herbicides similar in qualities as Roundup. It was at this stage that Monsanto seriously got into the process of developing Roundup herbicide resistant soybean and maize varieties to meet the threat of diminishing sale of its flagship herbicides. The Roundup Ready Cotton was another major product, which epitomised this strategy. This change in strategy necessitated a major infusion of capital in R and D projects and acquisitions of biotech and seed firms [Prakash 1995]. Monsanto was not alone in this pattern of adaptive behaviour. Bayer had got into a similar strategy mode of product complementarily involving its flagship herbicide 'Sencor'. By identifying and isolating an enzyme that helped to break down 'Sencor' from a tomato variety and transgenically introducing the gene in soybean and other crop fields applying sector [Prakash 1995:309]. Bayer hoped to achieve product complementarity. Similarly cases can be narrated of the efforts of Pioneer Hi-bred International to develop herbicide-resistant maize hybrid in the US [Prakash 1995:311, 313].

This phenomenon of complementary product research and production provided a major stimulant to the process of horizontal and vertical integration. Since the 'comple-product' strategy aimed at integration of herbicide and seed industries from the point of view of testing and distribution, synergies achieved by mergers that were integration oriented, could achieve not only economies in marketing for seeds but also economies in the matter of distribution of herbicides. The logic of the horizontal and vertical integration process was summed up by Jack M Kennedy, director (agriculture) Monsanto Company in a press interview on June 14, 1998 in Mumbai (interview with G Chandrasekhar, *Business Line*) a few months before the B_t Cotton testing and the terminator gene controversy broke out in India.

As Kennedy stated in this interview "Monsanto needs partnerships to move from research and development (R and D) on genes down to the farmer. So, we need germplasm: we need a strong distribution channel; we need grain handlers; and so on. The company is therefore trying to align itself with all parts of the value chain. The first thing we need to have is access to germplasm. So we have entered into partnerships with seed companies. Recently, Monsanto acquired 100 per cent interest in two US companies, namely Dekalb Genetics Corporation, a corn seed company and Delta and Pine Land Company, specialising in cottonseed. Specifically, in India, we acquired a 26 per cent stake in Maharashtra Hybrid Seed Company Limited (Mahyco). We moved into India for cotton at the invitation of Mahyco which saw years ago a huge opportunity for B_t cotton [a patented seed incorporating the Bacillus thuringiensis or B_t gene for protection from insect] and sought Monsanto's help. We created a 50:50 joint venture company called Mahyco-Monsanto Biotech, not only for cotton, but for all crops. Our primary focus right now is largely on B_t cotton in India. So, globally we will continue to create relationships for gene technology with germplasm because that is what the farmer wants."

In the same interview Kennedy discusses the Cargill-Monsanto joint venture and observes "It is a global joint venture for improving the nutrition of grain for animals. We have the technology to do that. Clearly, the next step is to expand. We have the technologies to improve nutrition for humans. That's an example of how not only sourcing of germplasm, but also access to partnership with all those connected with the food chain is important. We have signed an agreement with Rallis India for the distribution of Monsanto's branded herbicides. Rallis is strong in agricultural inputs, extension services and training. It is a normal distribution arrangement. We see the use of herbicides growing at 20-25 per cent annum."

These statements were made with special reference to the Monsanto acquisitions in 1998 of Cargill's international seeds business, Dekalb Genetics Corporation (a corn seed company) and the Delta and Pine Land Company specialising in cotton seed in 1998. It may be recalled

that even during 1995-97 Monsanto was on a acquisition spree. It acquired major shares or controlling interests in Calgene, Agracetus (another agro-biotech company), Asgrow Agronomics, Holden Foundation Seeds and Sementes Agroceres, a Brazilian supplier of maize seeds amongst others. Thus Monsanto which began as a producer of a range of chemicals (including saccharin for Coca Cola) and notable herbicides, such as 'Agent Orange', had, after the flurry of acquisitions during 1995 to 1998, emerged as the world's largest agro-chemical firm, the second largest seed company and fourth largest pharma giant. This development symbolises 'oligopolistic' tendencies. Taking a cue from the Monsanto story a stylised illustration of the vertical and horizontal integration scheme characterising a plant biotech driven MNC is illustrated at Figure 1.

II
Demand for New Plant Varieties in Developing Countries

Vertical and horizontal integration and concentration of production and distribution process by itself may not produce oligopolistic tendencies unless there exists scope for oligopolistic pricing. Patterns of market demand can facilitate or block oligopolistic pricing of transgenic plants or their reproductive materials. The market performance of transgenic varieties are yet to be assessed in Indian conditions. There are conflicting media reports on the poor performance of B_t cotton plant to the bollworm (the focus of the present controversy) in the US. The same situation is reported for the Roundup Ready Cotton.[2] B_t cotton is yet to reach the stage of commercial application in India. The IARI's B_t brinjal and B_t tomato are yet to reach the field trails phase. Meanwhile resistance to B_t cotton field trials in India and to transgenic plants in the UK, confirm that the inertia to accept seeds with transgenic genes could be stronger than the demand for non-transgenic reproductive material.[3]

In the absence of data on market performance of transgenic varieties in India, one has to perforce rely on demand patterns of new hybrid seeds in the Indian market as a proxy, if not as a baseline, to assess the scope for oligopolistic pricing of transgenic plants and seeds in the Indian situation. In the survey taken up for the purpose of study, we went one step further than merely a proxy survey of demand for hybrids.

Judging by the performance of hybrid varieties, India can be supposed to offer a reasonable market for hybrid seeds and new cultivars for rice, maize, wheat, bajra and vegetable crops. But in vegetables a mixed picture obtains. According to Rai and Tiwari (1998) F_1 hybrids of cabbage and tomatoes accounted for 31.5 per cent of land area under the two crops in India in 1997-98. In comparison, the share of hybrids in the land area under cauliflower, chillies, gourds, melons averaged 10 per cent despite these crops accounting for 60 per cent of the total vegetable cropped area in the country. If one considers Brinjal with a share of 17.8 per cent, in the 'low hybrid coverage' category, the share of vegetable crop area 'not under hybrids' could go up to 76 per cent. Therefore the market share for hybrids in India cannot be generalised as 'good' or 'bad'. Market shares for hybrid seeds in India have varied from crop to crop and region to region. The 'demand' for transgenic plants or seeds may be more uncertain, given its 'safety' aspects and the general risk-aversion propensity of Indian farmers in relation to new agricultural technologies.

Hypotheses such as the one propounded by Dekalb Genetic Corporation that a year of low commodity prices contribute to enhanced farmer interest in products that give them 'premium' price may hold in developed countries but not necessarily for Indian agriculture.[4] The Dekalb hypothesis lies at the base of research on transgenic plants in the west. For example efforts of US companies such as Escagenetics to develop transgenic arabica coffee with 'low caffeine' and 'high percentage of extractable solids', to satisfy the requirements of health conscious coffee drinkers in the US and Europe may not hold much attraction to Indian growers of coffee as shown in the subsequent section. This is because coffee growers in developing countries who battle volatile international prices for coffee consider cost efficiency and productivity to be key factors guiding their economies.

Similarly while it is axiomatic that farmers' demand for transgenic crops will be determined by their economic benefits, it is often ignored that there are two dimensions of demand for transgenic seeds from the farmer community. One, the demand for transgenic varieties prior to introduction of these plants in farmers' fields and two, the continuing demand for the new 'superior' varieties after they have been introduced in farmers' fields and after their results are assessed in actual farm conditions. Very often, economic benefits are calculated or reckoned in the latter or *ex-post* sense. A statement to the effect that a farmer in India will take to a new variety (including a transgenic variety) if he find returns to be 10 or 20 per cent more tha what he gets from the old variety, is a *ex-post* assessment since it speaks of th demand situation once the new variety ha gained entry in the farmer's field. In th non ex-post sense demand for a transgeni variety is taken as the initial 'inertia' t shift to a new variety by leaving the olde one. In other words, demand for a new plan variety including a transgenic variety needs to be assessed on the basis of th initial barriers to entry for the new variety These barriers in turn basically stem fron attachment (or lack of it) to the extant culti vated varieties, on the part of the farmers

A chance survey by the author fo obtaining information on cost-productivity trends amongst a group of mediun farmers cultivating the crops of coffee watermelons and finger millet in Karnatak during January 1997, formed the basis o the present assessment exercise of marke demand for transgenic plants and seec varieties. It was discovered in this survey of 65 medium farmers in three districts o Karnataka, that there was no standar demand pattern prima facie in the matte of new varieties of seeds for this grou of farmers. These results led to a secon round of surveys in January 1999 of th same set of farmers to elicit their specifi demand pattern for hybrid and high technology seeds which was explained a including genetically engineered seeds The general observation that could b gathered from these surveys was that th barriers to entry for new varieties is conditioned by subjective assessments on th part of cultivators, which are mainly guide by their propensity for risk aversion. Som sections of the surveyed farmers indicate their perception of new varieties as 'goo in some respects and bad in others' i comparison with the existing varieties. I practice, this meant that even when farmers expected new varieties to be an improvement for certain critical parameters, they expected these new varieties to exclud some of the good attributes of the existin varieties. This assumption marred deman for new varieties in many cases, thereby constituting a barrier to entry for ne varieties of plants.

The surveys conducted for this study were unconventional in approach. Ther was no effort to collect from each sample farmer his cost-productivity figures i monetary terms. This was because farmer were cagey about providing the correc financial picture of their cropping whe initially confronted in the pre-survey meetings held in October 1996. Therefor the strategy was to conduct two round

of surveys. In the first round of surveys the effort was to determine costs of cultivation for two of the three different crops surveyed, viz, coffee, watermelons and finger millet in real terms of different threshold levels of output. For arabica coffee, the real input data as gathered from the survey of 25 coffee growers was utilised to work out the monetary costs in terms of current plant protection chemicals, fertiliser costs and labour wages.

During the first round, 'real' data was obtained on various threshold levels of productivity attained by the sampled farmers during the previous 10 years. The labour input for various operations were quantified for the highest, medium and lowest levels of threshold productivity as specified by the growers. The quantum of fertilisers and pesticides applied at these levels of output were worked out for the three crops of finger millet, watermelons and arabica coffee. The real data obtained thus was converted into monetary terms at current (1998) prices. Correspondingly average revenue realised for 1998 was also noted for the fair average quality grades of the produce. In the second round of surveys held in December 1998 – January 1999, the same farmers were accosted with the worked out monetary costs and interviewed on their preferences for improved and new varieties including transgenic varieties in terms of different threshold levels of productivity. Deviation from the worked out monetary costs were also ascertained.

The 65 farmers were chosen from the districts of Bangalore, Chikmagalur and Hassan in Karnataka. The farmers in Bangalore District were surveyed for information on finger millet and watermelon crops, while the farmers of Chikmagalur and Hassan were surveyed for information regarding arabica variety of coffee. Of the sampled farmers, 15 raised watermelons (five of whom raised exotic watermelons), 25 cultivated hybrid and local landrace varieties of finger millets (15 cultivating both types and 10 exclusively cultivating just the hybrid variety) and 25 farmers were coffee growers in Chikmagalur and Hassan growing arabica coffee. The crops chosen for survey were a balanced mix – (1) a long duration plantation crop (coffee) with a gestation period of four to five years and a life span of nearly 40 to 50 years; (2) a horticulture crop of commercial significance (watermelon) with a cropping period of five months; and (3) a more or less annual cereal crop (finger millet).

During the first round of surveys 57 out of 65 farmers had indicated that their preferences for new varieties would depend on the performance of the existing varieties in terms of cost efficiency and productivity. Based on this premise, in the second round, the 65 farmers were confronted with questions on to what extent they would shift to new high quality plant varieties in response to fall in prices and to what extent they would shift to new disease resistant varieties in response to crop losses incurred on account of pests and diseases. By new varieties was meant both hybrid and transgenic varieties. Transgenic varieties were explained to the farmers as hi-tech plant varieties which had superior qualities of product or disease resistance with equal chances of safety risks and inadequate results. These questions were posed with reference to the cost-productivity figures worked out in Tables 1 to 5. The attributes of improved quality mentioned to the farmers during the survey were high sugar and sucrose content for watermelons, 'low caffeine' and 'better organoleptic' properties for coffee and 'improved tasting' finger millets.

The surveys yielded the fact that 17 out of 25 coffee growers cultivating the not-so premium variety of arabica coffee suc[h] as S 288 and S 795 did not favour switch[-]ing over to high-quality, premium yield[-]ing arabica cultivars such as 'Kents' i[n] response to lowering prices. Instead in th[e] wake of a sustained fall in prices in tw[o] seasons their preference was to switc[h] over to the low premium Robusta variet[y] of coffee which could be cultivated a[t] lower costs. These growers indicated [a] distinct preference for high yield, lo[w] disease arabica coffee cultivar to a ne[w] low-caffeine variety (including a trans[-]genic variety). The 25 finger millet grow[-]ers clearly indicated their indifferenc[e] to quality cultivars irrespective of pric[e]

TABLE 5: ARABICA COFFEE: OPERATING COST-PRODUCTIVITY BEHAVIOUR AT DIFFERENT PRODUCTIVITY LEVELS

Output Levels	Output Per Kgs	Cost Per Hectare	Price Per Kg*
1	500	59 31	59.00
2	850	39 50	59 00
3	1,000	37 16	59.00
4	1,100	32.55	59.00

Note: * Average price in 1998 for fa[i]r averag[e] quality

TABLE 1: PRODUCTIVITY PERFORMANCE OF FINGER MILLET: LANDRACES

Critical Levels	Output Per Acre (In Kgs)	Cost Per Acre (Rs)	Cost Per Kg (Rs)	Price Per K[g] (Rs)*
1	375	1570	4.08	4.20
2	600	1600	2.64	4.20
3	800	1645	2.06	4.20
4	1,000	2200	2 20	4.20

Note. * Average price in 1998 for far average quality.

TABLE 2: COST-PRODUCTIVITY PERFORMANCE OF FINGER MILLET HYBRIDS. HR-911 AND GS-64

Levels of Output	Output Per Acre (In Kgs)	Cost Per Acre (Rs)	Cost Per Kg (Rs)	Price Per K[g] (Rs)*
1	800	3,600	4.50	4.50
2	1,200	3,600	3 00	4.50
3	1,350	3,598	2.67	4.50
4	1,800	3,810	2.12	4.50
5	2,500	4,600	1.84	4.50

Note: * Average price in 1998 for far average quality.

TABLE 3: COST-PRODUCTIVITY PERFORMANCE OF WATERMELON – LOCAL HYBRIDS

Local Hybrid	Output Per Acre (In Kgs)	Cost Per Acre (Rs)	Total Cost (Rs)	Price Per K[g] (Rs)*
Level 1	5,000	2 60	13,000	2
Level 2	10,000	1.50	15,000	2
Level 3	15,000	1.00	16,000	2

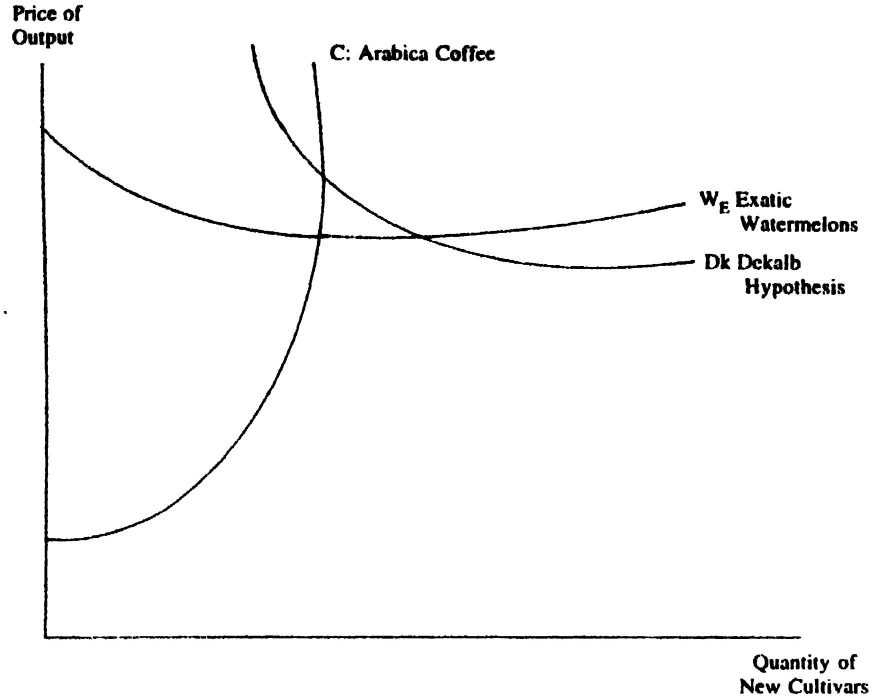
Note: * Average price in 1998 for far average quality.

TABLE 4: COST-PRODUCTIVITY PERFORMANCE OF EXOTIC HYBRIDS OF WATERMELON

Exotic Variety (Hybrid)	Output Per Acre (In Kgs)	Cost Per Acre (Rs)	Cost Per Kg (Rs)	Price Per Kg (Rs)*
Level 1	2,000	17,000	8 5	10
Level 2	5,000	30,000	6 0	10
Level 3	8,000	33,600	4 2	10

Note: * Average price in 1998 for far average quality

Figure 2: Relationship of Price Levels to Demand for New Cultivars with Improved Quality Traits



levels. Farmers cultivating local hybrids (the Indian Institute of Horticulture Research (IIHR) varieties) indicated a preference for shifting to high quality exotic watermelons (such as the Queens hybrid variety from Thailand) in the event of a drop in prices. In other words, it was only the watermelon growers in the sample who subscribed to the Dekalb hypothesis.

The reasons for this complex response pattern to changes in prices can be chiefly explained by Tables 1 to 5. For the arabica coffee growers the margin between costs and prices of coffee at lower levels of output (level 3 and level 2 in Table 5) being low, their sensitivity to sharp fluctuations in arabica coffee prices was high. Therefore they looked for low cost cultivation options. Though robusta coffee prices are lower than arabicas, the preference of these growers to shift to the robusta variety was due to the fact that the cost of cultivation per kg of robusta coffee was lower than the arabica variety by 25 to 30 per cent. In other words, faced with dropping prices, 17 of the 25 sampled arabica coffee growers preferred low cost, low premium coffee variety to a high quality, high premium coffee variety. Of the remaining eight farmers only two indicated preference for planting premium varieties of arabica coffee. The remaining six farmers were neither affirmative or negative in their attitudes to new 'quality' varieties.

As far as the watermelon growers were concerned, Tables 3 and 4 bring out the fact that though the costs of cultivation of local hybrids are lower and output per acre higher, the margins received on crops from local hybrids considerably fell when prices dipped. Therefore all the 10 growers expressed a desire to shift to exotic varieties of watermelons which despite lower productivity and higher costs of production enjoyed higher, and more importantly, stable prices in comparison to local hybrids.

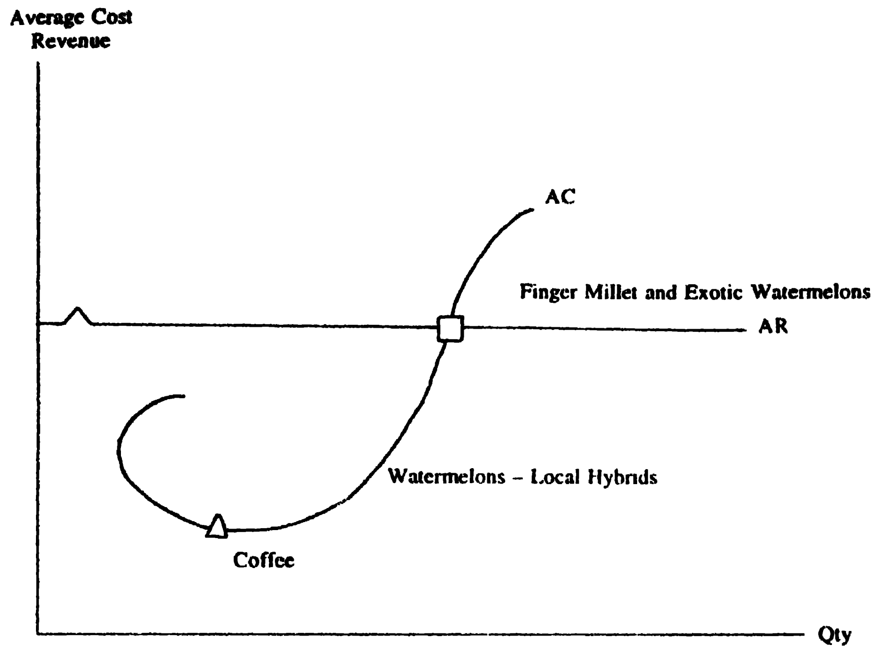
As far as finger millets were concerned the costs per acre for the local landraces being low and the crop being largely subsistence based, there was no desire to shift to new, high quality varieties even if prices fell. Even amongst the 10 farmers exclusively cultivating local hybrids, there was no definite preference for quality varieties for the fear that they would lose out in terms of 'productivity' and 'cost competitiveness' associated with hybrids.

The same sample of 65 farmers[5] (all of them in the medium farmer category)[6] were interviewed on their demand for new, exotic disease-resistant varieties, including transgenic varieties, during the second round of surveys. The disease resistance parameter was taken up for survey, considering the fact that disease resistance has been the major focus of transgenic research both by companies such as Monsanto as well as national research institutes such as the IARI (for brinjal and tomato) and the Central Coffee Research Institute (for transgenic arabica coffee varieties). The growers cultivating the long duration (30 – 40 years) arabica coffee were inclined to switch over to disease resistant varieties if they hit output per land unit area below level 3 for two continuous seasons. For the watermelon growers raising exotic varieties, a fall in output due to diseases (such as collar rot) even to level 1 was put up with unless the crop loss was continuously experienced for more than four seasons in a row. This was because growers cultivating exotic watermelons avoided shifting to any new disease resistant variety for fear of losing premium prices associated with exotic watermelons. The watermelon cultivators cultivating local hybrids indicated a clear preference for either shifting to exotic watermelons or to alternative disease-resistant varieties if level 2 productivity obtained continuously for two seasons and provided these varieties are not expensive to obtain.

The reasons for these inter-crop differences in the matter of demand for new cultivar could be attributed to the following factors. Coffee being a perennial crop, with a gestation of five years for cropping and life-span of 50 year, cost is the major economic consideration. The preference for alternative plant material was crucially guided by the average cost of production. Diseases such as leaf rust and white stem borer which have adverse impacts on crop productivity and on average costs were viewed as risks to be avoided under all circumstances even if it meant adopting a new variety with uncertain biosafety prospects and economic outcome.[7] For native hybrid watermelons, the high sensitivity to crop losses on account of the diseases was the poor margins experienced by growers in the event of crop loss due to diseases. In the case of exotic watermelons, growers were reluctant to shift to alternative disease resistant varieties unless crop losses were continuously incurred. In the case of finger millet, being subsistence based, increase in average costs from level 4 to 2 for local landraces was not a great incentive to shift to a disease resistant variety unless the fall was continuously experienced for more than three seasons.

In general, the surveyed farmers did not indicate any special preference or abhorrence towards transgenic varieties. This could be because that the dangers of transgenic products had not sunk in. However the small sample cited here very well serves to depict the fact that even within a small sample there could be wide variations in demand patterns for new cultivars. Indeed farmers can show wide

Figure 3: Cost Sensitivity to Crop Loss and Demand Pattern for Disease Resistant Varieties: All Illustration



differences in their attitude to risk aversion and could be employing a complex calculus of setting the risks of crop failure and price fluctuations *vis-a-vis* the risks likely to arise from cultivation of hitherto unknown, 'new varieties'. In such circumstances of 'demand incoherence' to presuppose that giant plant biotechnology companies with their oligopolistic features can enforce oligopolistic pricing for their products in India may not be a valid assumption to make. Rather, it would be safer to assume that 'demand' factors being highly uncertain and unpredictable for Indian agriculture, these companies wielding advanced 'transgenic' products may have 'flatter' average revenue curves to begin with, until such time that the demand gets conditioned to the economic behaviour theories propounded by Dekalb et al.

Similarly demand for new varieties of commercial crops and vegetables (which form the focus of international plant biotech companies) need not be more inelastic than those of cereals which generally are supposed to be the focus of national plant biotechnology firms. Thus the demand incoherence for improved or new varieties of plants in general and for transgenic plants in particular could by itself act as a safeguard against the oligopolistic tendencies of international companies.

The demand patterns for new varieties of plants including transgenic plants in response to changes in prices and crop losses are illustrated in Figures 2 and 3 for the four crops in the sample, in relation to the Dekalb hypothesis.

A larger sample of farmers, drawn from multiple strata, can better indicate the vagaries of the market place for new varieties of plants and seeds and help better assess the severity of the barriers to entry for improved strains of cultivars including genetically modified ones.

III
Policy and Law Framework for Transgenic Plants

There are other factors which can serve as regulation entities for advanced plant biotechnology companies in the Indian situation. These stem from the framework of policy and law revolving around the Plant Varieties Protection Act, the Biosafety Regulations, the Seeds Act and the proposed bio-diversity legislation. This framework provides adequate safeguards to check the oligopolistic tendencies associated with the integration processes as illustrated in Figure 4. However despite these advantages much remains to be done in the matter of giving teeth to the framework in terms of effective controls.

TRIPS and sui-generis legislation in India: The WTO Agreement on TRIPS specifies patentable subject matters. Article 27(1) of the TRIPS states that patents shall be available for any invention, whether products or processes in all fields of technology provided they fulfil the criteria of 'novelty', involve an 'inventive step' and are 'capable of industrial application'. The terms 'inventive step' and 'capable of industrial application' could be considered as synonymous with the terms 'non-obvious' and 'useful' respectively. Article 27(2) of the TRIPS states that members may exclude from patentability 'inventions' which may be necessary in order to protect public order or morality or human/animal/plant life or the environment in their territory. Article 27(3) of the Agreement lays down that members shall provide for the protection of plant varieties either by patents or by an effective sui-generis system or by any combination thereof.

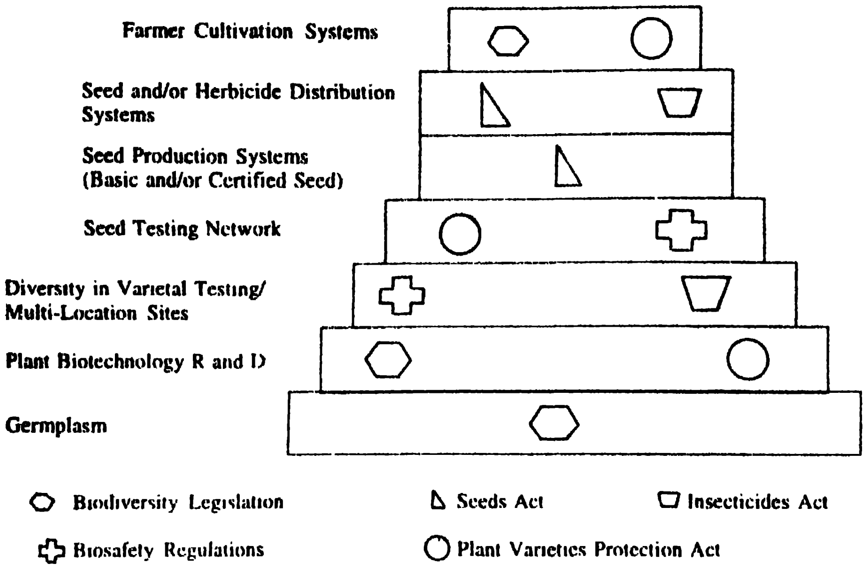
Article 27(3) in particular is critical to India as this requires us to provide protection of plant varieties by conferring plant breeders rights either by way of patents or through a sui-generis plant variety protection legislations. Countries with strong R and D base in plant genetic engineering such as the US have robust plant patent legislations. India is certainly not inclined to adopt patent protection regimes for its plant varieties. India is rather inclined to adopt sui-generis legislation which is non-'patent' based. There are many reasons for this proclivity.

India is one of the 10 mega-diversity countries of the world and a rich storehouse of landraces of principal agricultural crops. India has a strong R and D base in conventional plant breeding methods. Its strength in plant genetic engineering is impressive but not an overwhelming factor by comparison. The first two strengths explain India's disinclination towards plant patent regimes or towards a sui-generis legislation which is 'patent'-driven. Today in India, difference of opinion is not as much on the desirability of plant variety protection as on the structure of the sui-generis legislation.

Broadly one sees two schools of thought in India in regard of sui-generis plant variety protection. One school of thought favours the adoption of a UPOV model of plant varieties protection, while the second school advocates a non-UPOV framework for protection of breeders' rights [Sahai 1996] which could also uphold rights of local communities conserving the germplasm which forms the foundations of protected plant varieties.[8] The second school of thought is associated with the green movement in India [GRAIN 1990 and Shiva et al 1998].

India's reservations about plant patents and plant utility patents leaves it with the option of going in for a sui-generis option which could be modelled on the following: (1) UPOV-1978 with rights conferred on farmer conservators of germplasm,

Figure 4: Policy-Law Checkpoints in India for Regulation of Plant Biotechnology Including Transgenic Plants at Various Segments of Vertical Integration



mainly in the form of right over landraces; and (2) UPOV-1991 without necessarily restricting 'farmers privileges' breeder exemption. By ruling out plant patents and plant utility patents and further by adopting the DUS criterion (distinctiveness, homogeneity and stability) as the basis for confirming protected variety status, India has shown its inclination for modelling its PVPA legislations on UPOV lines if one goes by the draft PVPA Act currently being circulated. Even in UPOV, India prefers the less stringent version of UPOV 1978, whereby plant breeder rights are conferred only over 'reproductive' and vegetative propagating materials of the protected variety.[9] The clause of compulsory licensing in the draft PVPA acts as a further safeguard in preventing misuse of rights conferred on protected varieties.

In addition, the ICAR has notified its morphometric methods of determining DUS (in accordance with the UPOV guidelines for the conduct of tests for DUS). It is argued that morphometric measures mask genetic distance. Conversely there could be situations where genetic transformation maybe 'cosmetic' or 'commercially' irrelevant with, may be, virtually no alteration in morphometric properties. The features of policy, law and testing methods being adopted by India have the scope of blunting the oligopolistic edge of transgenic technology. This will be particularly true of those transgenic plants which have only a few characteristics changed due to genetic engineering and which may not necessarily get reflected in morphological or physiological features such as growth, flowering habit, size of the stems and branches or colour amongst others. Plant patent or plant utility patent regimes in conjunction with molecular marker systems for determining varietal identity could give considerable latitude for transgenic plants with narrow genetic distances to qualify for protection.[10] Our core policy and law on protected plant varieties thus does not confer appreciable benefits of protection to transgenic varieties.

Biosafety Guidelines: India does not have a biosafety legislation. However a mechanism has been set up under the department of bio-technology based on a three tier mechanism to look into safety aspects of transgenic plants. These relate to: (1) the Institutional Bio-Safety Committee (IBSC) whose clearance is a must for any research institute undertaking transgenic research; (2) the Review Committee on Genetic Manipulation (RCGM), a national committee with mandate to monitor national research in India in GMOs; and (3) a genetic engineering approval committee based in the ministry of environment and forests with authority to approve commercial use of GMOs and re-combinant DNA products. These safeguards apart, the establishment of two transgenic containment facilities by the ICAR and the department of bio-technology in 1999, could provide operational infrastructure for biosafety.

Seed policy: The drought of 1987-88 in India, coupled with imbalances in crop productivity for select categories of cereals and pulses catalysed the introduction of the New Policy on Seed Development (NPSD) in 1988. This policy of liberalised import of high quality seeds which in conjunction with the general economic liberalisation regime has opened the Indian seed market to foreign seed producers. The ostensible strategy of the NPSD is to ensure that farmers in India are exposed to quality seeds from a wide variety of sources including international sources. However transgenic plants and seeds bring about problems in the form of sanitary and phyto-sanitary related diseases and pests. The NPSD provides for upgrading of plant quarantine facilities for imported seeds to tackle the sanitary and phyto-sanitary related measures. In addition to these safeguards the NPSD 1988 requires samples of transgenically developed new seeds to be supplied to the India Natural Gene Bank maintained by NBPGR [Sidhu et al 1997]. This is particularly significant for transgenic varieties based on Indian germplasm as is the case of B_t Cotton variety being field tested in India under the Monsanto-Mahyco Joint Venture (JV). If one reckons with the fact that the B_t cotton variety being field tested in India has been designed for Indian conditions having been developed after backcrossing of the B_t gene into India cotton germplasm, the NPSD requirement will serve to considerably strengthen the proposed biodiversity legislation in India.

The proposed biodiversity legislation: The draft outline of India's biodiversity act[11] circulated for public discussions during July 1998 is based on prior informed consent principle to regulate obtaining of biological resources by body corporates or organisations not registered in India or those registered in India with non-Indian citizen participation in equity or management either for research or for commercial utilisation or bio-prospecting. This provision, if brought into effect in the final act could act as another check point on vertical integration tendencies of international bio-tech companies which either directly operate or work through joint ventures with Indian companies in the country.

Figure 4 sums up the policy legal framework required to tackle the oligopolistic tendencies of transgenic plant from horizontal and vertical integration.

IV
Future Directions for Policy-Law Framework

The basic policy and legislation framework notwithstanding, the operational aspects leave much to be desired. Finer articulation of these policies and laws and

concerted direction in the matter of implementation of the policy-law framework is crucial for regulations on transgenic plants to be effective in India. As mentioned at the outset, a narrow biosafety focused regulatory system will not achieve the purpose of securing social, economic and political equity. The PVPA legislation and the systems of varietal identification being set up in India are on the right track if the presumptions outlined in the earlier sections are correct. The temptation to use molecular markers may be high. However it is advisable for India to go in for markers as variety identification techniques in place of morphometric methods only if its utility and reliability is proved beyond doubt. This cautious approach is extremely important to avoid tendencies of cosmetic breeding and conferment of plant breeders rights over what may be 'cosmetic breeds', transgenic or non-transgenic. In addition, molecular marker techniques such as RAPD are high cost options. However molecular markers may find better application in accelerating backcrossing under conventional plant breeding as they allow selection of individuals with more of recurrent genomes at each cycle and facilitate conventional plant breeding systems to be completed in a shorter cycle [Henry 1997].

The PIC procedures under the biodiversity legislation need further articulation to cover cases of transgenic plants developed in India based on germplasm maintained ex-situ by the Indian partner in a JV collaboration. The aspect of access to biological resources in the proposed bio-diversity legislation should squarely include ex-situ collections of agro-germplasm maintained by both public and private seed industries. This could act as a check on backward integration processes involving control over germplasm by foreign bio-tech companies through JVs with Indian partners.

As far as the seeds legislations are concerned there is need to bring in the criterion of value for cultivation and use in India (VCU) in addition to the DUS at the cultivar stage. This is because the VCU with its requirements of denoting a clear and distinct improvement over existing varieties[12] in the matter of commercial application, could act as a check on cosmetic breeds that may fool the PVPA legislation and graduate to the seed registration phase. Similarly the biosafety regulation while seemingly well structured is placed on a relatively weak foundation in its environment impact assessment (EIA) dimension. Apart from proving the protection criteria (DUS) for transgenetic varieties and their commercial viability it is also necessary to carefully assess the biosafety of these crops from the EIA angle. Particularly daunting will be the task of reconciling the conventional parameter of 'expression of foreign gene' for according DUS to a transgenic plant with that of 'control of plant gene expression' that forms the basis of the terminator gene in crops of commercial importance. This will require far more elaborate protocols. Perhaps the introduction of clauses on regulations of living modified organisms (LMOs) in the final version of India's bio-diversity legislation could be the first step in the direction of strengthening India's biosafety regimes in terms of the environment impact assessment angle.[13]

To sum up, transgenic plants require to be regulated for more than one reason. The dangers of economic domination posed by transgenic plants and advanced genetic engineering technologies are as important as the biosafety factor. India has certain natural checks by way of incoherent market structures for new plant varieties including transgenic plant varieties. It is difficult to secure oligopolistic pricing for new varieties of plants in India unless a high degree of market awareness is mobilised by plant biotech companies to overcome the 'barriers to entry'. India has also a legislation framework which is composite and good enough to regulate transgenic plants and their inherent economics at multi-levels. However critical gaps need to be addressed if these laws are to have any practical meaning or effect.

Notes

1 For a recent report on the fall in the value of Monsanto stocks by 30 per cent and the lay-off of 9 per cent of its global workforce see Khurana et al (1999). This story indicates that integration processes as a strategy of leveraging economic advantage may not always meet with unqualified economic success.

2 Indira Khurana et al, op cit, mention about media reports on the poor performance of Monsanto's B_t cotton crop in the US in 1996 which was allegedly attacked by bollworn, and the boll damaged to roundup cotton in the 1997 season

3 In the US between 1987 and 1996, 2000 field trials of transgenic plants had been conducted As John Smith (1996) notes, while it would appear that transgenic plants do not look or behave widely differently from ordinary crop plants, there have been some concerns expressed that contained conditions of the field trials do not adequately mirror the real field situations and some potential environmental hazards could be missed which will show up only after release. The recent outburst in UK and India show that concerns about the negative effects are more vocal now than in the past.

4 John Hemingway, Dekalb product manager for quality and special traits, in a chat with Dow Jones, New York on September 4, 1998 was euphoric when he stated, "In a year with low commodity prices, we are finding there is a lot of farmer interest in a product that gets them a 25-cent premium over today's $ 2 corn". And he continued, "If corn were $ 4 today, the premium would not loom so large". Hemingway gets support from Scott Smith, a senior buyer in commodity purchasing at Quaker Oats who states, "We've been buying special crops for a long time to use in grits, corn meal and Cap'n'Crunch cereal Just now farmers are getting a clue With terribly low commodity prices today, any premium looks good and that is growing this business. Plus, you don't need to be as good a manager or as precise to grow these crops as you do with No 2 corn because of the premiums they pay."

5 Though the sample size of 65 is small, it is significant as an indicator of economic behaviour underlying farming operations in India. The standard deviation is not marked for the sample insofar as costs per unit of product is concerned The standard deviation of cost per kg for the lowest and highest output level per kg of produce (as indicated by the growers in the second round of survey, when confronted with the figures in the tables), ranged from 0.29 to 0 4 for levels 4 and 1 respectively in regard to landrace varieties of finger millet and from 0 13 to 0.68 for hybrid varieties of finger millet for levels 5 and 1 respectively The standard deviation of cost per kg for non-exotic watermelons ranged from 0 05 to 0 12 for levels 3 and 1 respectively and for exotic watermelons from 0.38 to 1.11 for levels 3 and 1 respectively. For arabica coffee the standard deviation of cost per kg ranged from 3 48 to 10 14 for levels 4 and 1 respectively In other words, the deviation from the average cost per kg figures presented for the highest and the lowest level of output is negligible and the sample is accordingly not infirm

6 By 'medium farmer' is meant farmers cultivating between 5 and 10 acres of agricultural cereals or horticultural crops or farmers with holdings between 10 hectares to 25 hectares cultivating plantation crops such as coffee In other words the category of 'medium farmers' employed here is sector-specific and not 'social' in connotation. There is no effort to argue here that the medium farmer growing coffee and the medium farmer cultivating cereals and horticultural crops are on the same economic plane The focus on medium farmers for the study and the survey was deliberate as the purpose was to work out cost-productivity analysis and demand patterns for new plant varieties, not characterised by extreme biases associated with scale or size of holdings.

7 It may be interesting to note that the thrust of plant breeding efforts in India's coffee sector has been basically in the direction

of developing varieties resistant to leaf rust diseases. White stem borer which is a major disease affecting arabica coffee has not been a major focus of plant breeding efforts of the CCRI. Unfortunately this is one disease which coffee growers view as a capital loss, as the coffee bush is irretrievably lost. In recent times the Coffee Board has been more vocal about developing transgenic arabica varieties which are immune to the white stem borer. A case in point has been the emphasis on transgenic research in the recent address of S V Ranganath, chairman, Coffee Board at the Karnataka Planters' Association meeting in Bangalore in November 1998.

8 For a slightly different critique 'of the soft option illusion' of UPOV 1978 see Damodaran (1998b).

9 By comparison the UPOV 1991 provides plant breeder rights over propagating material and where required over harvested' material. The authorisation of the breeder will be required in respect of harvested material in case there has been unauthorised use of the propagating material by way of unauthorised marketing or export, etc. Harvested material as defined in UPOV 1991 can include the entire plant or parts of the plant. See for further discussion Damodaran (1998a)

10 See Henry (1997) for a comprehensive account of molecular markers such as Random Amplified Polymorphic DNA (RAPD) or Restriction Fragment Length Polymorphisms (RFLP) and their fine tuning effects in the matter of genetic distance. If 'd' is the neighbourhood range of an extant variety Z_t and as per morphometric methods $Z_t = (x - \delta, x) \cup (x, x + \delta)$, then the neighbourhood range or genetic distance that could be fine tuned and laid down by molecular markers such as RFLP or RAPD as Z_{tt} where Z_{tt} could be $(x_t - \delta/2, x) \cup (x_t, x_t + \delta/2)$. This clearly serves to indicate the extent to which molecular markers can distinguish varieties within a narrow genetic distance and perhaps satisfy the DUS criteria. Unfortunately the methodological reliability of these markers is suspect and besides these techniques are at times more costly to apply for establishing varietal distinctions.

11 Anonymous (1998) refers to the draft biological diversity act circulated by the ministry of environment and forests for discussions with the NGOs.

12 For the operation of the VCU system in Europe see Kelly et al (1998) and the complications created by VCU criteria for UPOV see Leskein (1997). The spirit of proposing VCU criteria is on the assumption that India has a PVPA which is 'sui-generis' and which is only 'modelled' on the UPOV 1978 version.

13 The aspect of biosafety is not the major focus in this article. For some considered views on biosafety dimensions of genetically engineered organisms and transgenics see Kesavan (1997) and Gurumurti Natarajan (1997) amongst others. The trade angle of biosafety is considered in Damodaran (1999).

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Rural Infrastructure and Growth in Agriculture

M S Bhatia

This paper attempts to build a composite index of rural infrastructure statewise and examines the relationship between infrastructure development and levels of production and growth in agriculture.

ADEQUATE infrastructural support is a pre-requisite for accelerated economic development. Infrastructure comprises all those activities and facilities which help to sustain the growth in production and income generation in the rest of the economy rather than production and income generation within the infrastructure enterprises themselves. It is an umbrella term for many activities referred to as 'social overhead capital' by such development economists like Paul Rosenstein-Rodan, Ragnar Narkse, and Albert Hirschman. Rural infrastructure is said to strengthen the foundation of agriculture which is a pace setter of our economic growth. The *World Development Report* (1994) which focuses on infrastructure for development brought out a strong positive relationship between the level of GDP and infrastructure stock per capita. Good infrastructure helps in raising productivity and lowering the unit cost in the production activities of the economy. The pay-off from better infrastructure services go beyond reducing technical inefficiencies and financial losses [Gowda and Mamatha 1997].

In a developing economy like India, infrastructural facilities are generally weak and inadequate. Many people, especially the rural poor, and areas do not have access to even minimal infrastructure services. If the nation aspires to attain maturity in economic growth, it must give a big push to the upliftment of the network of physical infrastructure like energy, transport, etc. The importance of a strong infrastructure has been well-recognised by the government. The united front in its *Common Approach to Major Policy Matters and Minimum Programme*(1996) observed that "Investment in infrastructure has to be stepped by from the present 3.5-4.0 per cent to atleast 6 per cent of GDP in the next few years". It also observed that the economy could grow and the needs of the people could be met without more capacity in power, oil, telecom, railways, roads and ports. The commulative requirement of these sectors over the five years 1996-2000 was then estimated to be above Rs 7,00,000 crore. In view of the large financial requirement, the government acknowledges that the state and public investment have a leading role to play in the development of infrastructure. The government of India appointed an Expert Group under the chairmanship of Rakesh Mohan to consider issues relating to commercialisation of infrastructure projects which submitted its report in June 1996. The group has defined a role for private public participation in the required infrastructure and recommended that the government could adopt the venture capital route where the government could initially be the major share holder and upon completion and attaining viability of projects, it could disinvest and invest elsewhere. As a follow-up of the report, the Infrastructure Development Finance Company (IDFC) has been set up to promote infrastructure investment with the central government and the Reserve Bank as chief contributors to its share capital [RBI 1996-97]. The *National Agenda for Governance*, 1998 has also indicated infrastructure development as a thrust area particularly energy and power sectors for recommencing public expenditure in this sector, which would increase access to long-term funds in the national and international markets, remove administrative bottlenecks and reverse the slowdown in this critical area of national economy. The adequacy of infrastructure helps to determine the states success or failure in agriculture in terms of level of production and diversifying the sector. Although precise linkages between infrastructure and development are still open to debate, the experience across the world has shown that increase in stock of infrastructure is associated with the increase in output accross the countries. As countries develop, infrastructure must adapt to support the changing patterns of demand as the share of power, roads, telecommunication in the total stock of infrastructure increases relative to the basic services such as irrigation, etc.

The present paper aims at examining (i) the pattern of development of rural infrastructure in India over the years; (ii) regional variations in availability of rural infrastructure facilities; attempts (iii) to build composite index of rural infrastructure statewise and; examine the relationship between infrastructure development and level of production and growth in agriculture.

The major items of infrastructure as identified in the planning process include irrigation, power, transport, communication, education, health, etc. Within these major heads, there are sub-items of rural infrastructure which have direct bearing on agricultural development. For example, it is not only the total power availability in the states, but equally important is its access to the villages and then to the agriculture. Similarly, source of irrigation is equally important as the irrigation itself. The major sub-items of infrastructure include (i) proportion of villages electrified; (ii) percentage of power used in agriculture; (iii) percentage of irrigated area; (iv) intensity of tubewells; (v) density of rural roads; (v) intensity of transport vehicles; (vii) fertiliser sale depot; (viii) rural credit as reflected by intensity of rural commercial banks; (ix) rural health as reflected by intensity of beds in rural hospitals; (x) rural infant mortality rate; (xi) intensity of wholesale markets; (xii) storage facilities; (xiii) intensity of agricultural extension workers; and (xiv) agricultural research/scientist.

Power, irrigation, transport, communication, education, health, etc, are the major items of infrastructure which have received special attention in the development planning of the country. The relative importance of these items has been changing over different plan periods. The details of plan expenditure by heads of development during the period Third Five-Year Plan (1961-66 to 1995-96) are shown in Table 1. An examination of Table 1 shows that in the early developmental plan periods, i e, Third and Fifth Five-Year Plans, expenditure on infrastructural items accounted for about 56 per cent of the total. However, thereafter, a proportion of the expenditure on infrastructural heads has decreased to almost 49-50 per cent. Further the relative importance of different items, has also been changing during the different plan periods. As has happened in developing countries with the growth in the economy, the demand pattern has changed in India also which called for greater allocation of funds for development of transport, communication, education, etc, in the total

stock of infrastructure and the relative share of expenditure services like irrigation has decreased. The proportion of expenditure on irrigation and flood control which was 9.8 and 10.0 per cent during Fifth and Sixth Five-Year Plan periods, has declined to 7.6 per cent in Seventh Plan and then to 6.0 per cent in the Eighth Five-Year Plan period. The share of expenditure on transport which was in the range of 16-17.4 per cent during the period 1974-75 to 1989-90, has gone up to about 21.5 per cent in the Eighth Five-Year Plan period of 1992-93 to 1996-97. Power continues to be an important item of the infrastructure as expenditure on this item has remained in the range of 16.0 – 18.0 per cent of the total in various plan periods except in certain years. However, during the Eighth Five-Year Plan period relative expenditure on this item (energy) has been slightly reduced.

With the large-scale plan expenditure of the government, the availability of infrastructure has significantly expanded in the country over the years. The growth in the stock of major infrastructure items in India has been shown in Table 2. Table 2 shows that the stock of infrastructure has expanded manifold in the country in the last 46 years of planned developemnt. The electric power generation has increased almost 75 times from 56.1 billion kwh in 1950-51 to about 3890.0 billion kwh in 1995-96. Fertiliser production in the country has increased from 0.50 lakh tonnes to over 117 lakh tonnes, whereas irrigational facilities have increased from 22.50 million hectare to 70.25 million hectare during the same period of 1950-51 to 1995-96. These are three important physical items of infrastructure significantly influencing production and growth in agriculture. Equally important is the marketing infrastructure including roads and transport, storage and market facilities which provide impetus to agricultural production growth through orderly disposal. While road lengths have increased to seven times, the commercial vehicles in the country have increased to over 19 times from 1.16 lakhs to 22.21 lakhs during 1950-51 to 1995-96. Similarly the number of regulated markets in the country have increased from 206 to 6,836 during the same period.

There are some other items of rural infrastructure such as rural health, agricultural extension workers, agricultural research, etc, which have significant bearing on the growth of agricultural economy. Although details of stock of these items over years are not readily available, there has been a significant growth in these items that has helped in strengthening the production base of Indian agriculture.

Spatial Variations in Rural Infrastructure

The expansion in physical infrastructure requires large and continuous investment and hence its availability in different states depends upon the relative priority accorded by the state governments. Although it would have been appropriate to analyse the statewise expenditure on different items over the years, due to constraints of availability of data and resources it could not be attempted here. However, it would be of interest to study the existing level of infrastructure in different states. The level of basic infrastructure items in different states as per 1994-95 statistics are shown in Table 3. An examination of this table shows that as far as availability of power in rural areas is concerned, all villages have been electrified in Andhra Pradesh, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Punjab and Tamil Nadu. However, the percentage of villages with power facilities as low as in the range of 71-76 per cent included the state of Bihar, Orissa, Uttar Pradesh and West Bengal. The proportion of power used for agriculture is highest in Haryana as 49.5 followed by Punjab and Andhra Pradesh with 44.27 and 40.25 per cent respectively. This proportion is as low as 2.34 in Assam, 2.76 in Himachal Pradesh, 4.05 in Kerala 4.83 in Orissa and 6.96 in West Bengal.

As far as the irrigational infrastructure is concerned, the percentage of net irrigated area is highest in Punjab with 93.3

Table 1: Plan Expenditure by Heads of Development

(Rs in crore)

	Irrigation and Flood	Power	Transport and Communication	Education	Health and Family Welfare	Others	Total
Third Plan	664.7	1252.3	2111 7	588.7	250 8	3708.3	8576.5
19661-66	(7.8)	(14.6)	(24.6)	(6.9)	(2.9)	(43.24)	
Annual Plans	471.0	1212.5	1222 4	306 8	210.6	3202.1	6625.4
1966-69	(7 1)	(18 3)	(18 5)	(4.6)	(3.2)	(48.33)	
Fourth Plan	1354.1	2931 7	3080 4	774.3	613.5	7024.8	15778.8
1969-74	(8.8)	(18.6)	(19 5)	(4.9)	(3.9)	(44 32)	
Fifth Plan	3876.5	7399.5	6870.3	1710.3	1252.6	19569 6	39426.2
1969-74	(9.8)	(18.8)	(17.4)	(4.3)	(3.1)	(49.6)	
Annual Plans	1287.9	2240.5	2044 9	263.0	341.6	5998.6	12176.5
1979-80	(10.8)	(18.4)	(16.8)	(2.2)	(2.8)	(49.26)	
Sixth Plan	10929 6	18298.6	17677.9	2976.6	3412 2	55996.8	109291.7
1980-85	(10 0)	(16.7)	(15 9)	(2.7)	(3.1)	(51.24)	
Seventh Plan	16589.9	37895.3	37973 6	7685.5	4836.2	113569.1	218549.6
1985-90	(7.6)	(17.3)	(17.4)	(3.5)	(2 6)	(51.92)	
1990-91	3974.1	11387 8	11022.6	2316.5	1823.0	27845.3	58369.3
	(6.8)	(19.5)	(18 9)	(4.0)	(3.1)	(47.70)	
1991-92	4231.9	14517 9	12927 7	2599 0	1948.1	28526 5	64751 1
	(6 5)	(22.4)	(20 0)	(4.0)	(3.0)	(44.05)	
Eighth Plan							
1992-93	4705.2	12157.4	15813.6	2619.4	2222.0	35334.8	72852.4
		(6.5)	(16.7)	(21.7)	(3.6)	(3.1)	(48.50)
1993-94	5370.5	14773.1	18178.3	3147.3	2613.0	43998.5	88080.7
		(6 1)	(16.8)	(20.6)	(3.6)	(3.0)	(49.52)
1994-95	5410.1	15671.8	22709.6	4282.3	3139.2	54991.0	106204.0
		(5.1)	(14.8)	(21 4)	(4.0)	(3.1)	(51.77)
1995-96	6546.9	17135.0	25699 7	6123.1	3516.2	60876.7	119897.6
		(5.5)	(14.3)	(21.5)	(5.1)	(3.0)	50.77)

Note: Figures in brackets show percentage to total.

Table 2: All-India Expanded Stock of Infrastructure

	Power Generation Billion Kwh)	Irrigated Area (Million Hect)	Fertiliser Production (Lakh tonnes)	Road Length (000 Km)	No of Commercial Vehicles (Lakh)	Registered Medical Practioners (in 000 Person)	Number of Regulated Wholesale Market
1950-51	5.1	22.56	0.50	400.0	1 16	61.39	206
1960-61	16.9	27.98	1.50	524.0	2.25	83.45	715
1970-71	55.8	38.19	10.59	918.0	4.37	153.50	1777
1980-81	110.8	49.73	30.05	1491.0	7.01	266.49	4158
1990-91	264.3	62.47	90.45	2037.0	17.44	397.76	6250
1995-96	380.0	70.25	117.03	2884.0	22.21	491.40	6836

followed by Haryana and Uttar Pradesh with 75.6 and 65.6 respectively. The proportion of net irrigated area is also higher than the all-India average of 35.2 per cent in the states of Andhra Pradesh, Bihar, Jammu and Kashmir, Orissa, Tamil Nadu and West Bengal. The proportion of irrigated area is lower than the all-India average in the states of Assam, Gujarat, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra and Rajasthan. The related important item of physical infrastructure is the intensity of tubewell in the state as it is considered as assured means of irrigation water. The intensity of tubewell as reflected by the number per hundred hectares of area, is highest in Punjab followed by Andhra Pradesh, Kerala and Haryana. The tubewell intensity is very low in Assam, Jammu and Kashmir, Orissa, West Bengal, Rajasthan, Tamil Nadu and Bihar where as it is moderate in Karnataka and Maharashtra.

Besides irrigation, the other most important input for raising agricultural production is the easy availability of fertilisers. The intensity of fertiliser sale depot as indicated by the number per thousand hectares is an important indicator of fertiliser availability. The intensity of fertiliser depo is lowest in Rajasthan as 0.42 per thousand hectare. The next lowest intensity of fertiliser depot is in Madhya Pradesh with the number being as 0.75. The fertiliser distribution net work is also relatively weak in Andhra Pradesh, Gujarat, Karnataka and Maharashtra and farmers in these states have to travel long distances to get fertilisers. The intensity of fertiliser sale network is moderately reasonable in the states of Assam, Bihar, Haryana, Orissa and Punjab where number is in the range of 1.7-2.0 per 1,000 hectares of crop area. This network is quite strong in the states of Kerala, Tamil Nadu, Uttar Pradesh and West Bengal besides Himachal Pradesh and Jammu and Kashmir.

The other important aspect of physical infrastructure is the proper and adequate facilities for upgradation and development of new technology in the field of agriculture. This could be measured in terms of intensity of agricultural scientists in the state. The country has agricultural

TABLE 4: WEIGHTING DIAGRAM FOR CONSTRUCTION OF INDEX OF INFRASTRUCTURE

Major Item		Sub-Item	Weight
Power			10
	(i)	Percentage of villages electrified	5
	(ii)	Percentage share of agriculture	5
Irrigation			15
	(i)	Percentage of irrigated area	10
	(ii)	Number of tubewells per 100 hect	5
Transport			10
	(i)	Road length per 100 sq km	5
	(ii)	Number of transport vehicles per 100 sq km	5
Fertiliser			
	(i)	Number of sale depot per 1000 hect.	10
Agricultural Credit			
	(i)	Number of rural banks per lakh of rural population	10
Rural Health			10
	(i)	Number of bed in Rural hospital per million population	5
	(ii)	Rural infant mortality rate	5
Agricultural Marketing			15
	(i)	Number of wholesale markets per 100 sq kms	10
	(ii)	Foodgrains storage facilities as percentage to production	5
Agricultural Extention			10
	(i)	Number of agricultural extension personnel per million rural population	
Agricultural Research			10
	(i)	Number of Agricultural scientists under both ICAQR and SAU system per million hectare	

TABLE 3: STATEWISE LEVEL OF BASIC INFRASTRUCTURAL ITEMS DURING 1993

State	Power		Irrigation		Transport		Fertiliser	Credit and Finance	Health		Marketing		Agriculture Extention	Agriculture Research
	Percentage of Villages Electrified	Share of Agri in Percentage	Irrigated Area in Percentage	Number of Tubewells Per 1000 Hect	Road Length Per 100 Sq kms in kms	Number of Transport Vehicle Per 100 sq kms	Number of Depot Per 1000 Hect	Number of Rural Banks Per Lakh Population	Beds in Rural Hospital (Per Million Population)	Rural Infant Morality Rate	Number of Market (Per 100 sq kms)	Storage Facility as Percentage of Total Food grains Prod	Worker Per Million Rural Population	Agricultural Scientist Per Million Hect
Andhra Pradesh	100.0	40.25	38.5	13.6	53.3	73.10	1.11	5.15	72.7	88	2.9	33.0	97.0	152
Assam	98.0	2.34	21.1	0.1	33.6	104.70	2.02	4.15	140.0	111	2.2	15.8	140.0	180
Bihar	70.6	21.72	46.7	3.6	49.2	86.70	1.75	4.48	30.9	102	2.5	3.0	56.0	139
Gujarat	100.0	36.85	27.6	5.6	53.9	191.80	1.28	5.70	102.2	104	1.9	58.4	145.0	112
Haryana	100.0	49.53	75.6	11.5	60.0	167.10	1.78	5.30	34.0	91	6.5	27.9	143.0	459
Himachal Pradesh	100.0	2.76	17.9	0.7	45.9	28.80	6.13	12.38	108.7	90	0.7	3.3	218.0	1027
Jammu and Kashmir	95.0	10.16	42.8	0.5	5.9	49.10	2.74	8.31	53.6	86	0.8	6.8	298.0	68
Karnataka	100.0	36.37	20.3	8.2	67.7	69.00	1.07	6.94	86.0	82	3.5	12.2	173.0	460
Kerala	100.0	4.05	14.9	12.0	356.7	462.10	3.42	2.20	123.3	28	8.9	80.0	116.0	327
Madhya Pradesh	92.0	22.67	24.4	5.2	32.1	23.60	0.75	5.45	23.1	124	1.4	19.5	258.0	65
Maharashtra	100.0	25.20	13.7	9.8	73.0	90.60	1.22	4.75	142.3	73	2.7	32.0	130.0	137
Orissa	70.7	4.83	32.8	1.0	126.0	38.80	1.85	5.47	86.5	127	1.0	10.5	259.0	105
Punjab	100.0	44.27	93.3	15.7	107.8	196.40	1.95	[illegible]	233.5	71	13.2	54.5	293.0	241
Rajasthan	83.4	30.69	26.4	2.6	36.3	43.90	0.42	5.36	31.4	110	1.1	21.5	135.0	74
Tamil Nadu	100.0	25.50	46.4	2.7	152.3	201.45	3.40	4.93	127.7	93	2.3	20.0	135.0	204
Uttar Pradesh	75.4	39.30	65.6	4.1	69.2	55.21	3.72	4.54	21.8	140	2.2	13.6	24.0	150
West Bengal	75.8	6.96	35.8	1.8	70.0	243.00	6.80	4.19	146.8	75	2.4	14.5	45.0	90
All-India	84.0	28.20	35.2	7.0	62.1	108.66	1.81	4.23	96.8	105	2.4	21.4	95.4	155

scientists either in the ICAR system spread over in different areas through its research institutions or in the state agricultural universities. The average number of agricultural scientists per million hectare in the country was estimated at 155. This number is much higher than the all India average in the states of Assam, Haryana, Jammu and Kashmir, Karnataka, Kerala, Punjab and Tamil Nadu which showed well developed agricultural research infrastructure in these states. However, the number of agricultural scientists per million hectare are much lower in the states of Madhya Pradehsh, Jammu and Kashmir, Rajasthan, West Bengal and Orissa and moderately lower in Bihar, Gujarat and Maharashtra.

It is not only the development of technology but equally important is the infrastructure required to spread the available scientific information and technology amongst the large number of farmers, which require adequate number of agricultural extension workers. The average number of agricultural extension workers which includes village level workers as well as subject matter specialists at the district and regional levels was estimated at 95.4 per million rural population. This number is highest in Punjab (293) and lowest in Uttar Pradesh (26). The intensity of agricultural extension workers is relatively high in of Himachal Pradesh, Karnataka, Madhya Pradesh and Orissa whereas it is reasonably good in the states of Assam, Gujarat, Haryana, Karnataka, Rajasthan and Tamil Nadu. Agricultural extension is relatively weak in Bihar, Kerala, Uttar Pradesh and West Bengal.

Use of yield increasing modern inputs and technology in agriculture is usually capital intensive which require large financial resources on the part of the farmers. Farmers are usually constrained to use modern inputs and technology if availability of credit is not adequate. Institutional credit is the most economical and intensity of financial institutions particularly rural commercial banks is an important parameter of credit infrastructure. The intensity of rural commercial banks as reflected by the number per lakh of rural population is highest in Himachal Pradesh being 12.38 followed by Jammu and Kashmir and Punjab with number as 8.31 and 7.24 respectively. The number of rural commercial banks per lakh of rural population is above average in the states of Andhra Pradesh, Gujarat, Haryana, Madhya Pradesh, Orissa and Rajasthan. The credit infrastructure is weak in the states of Assam, Bihar, Kerala and West Bengal and moderate in the states of Gujarat, Maharashtra, Tamil Nadu and Uttar Pradesh.

Infrastructure of roads and transport is important for the procurement of inputs and disposal of farm output. The intensity of road as measured by the length of road per 100 sq km is highest in Kerala with 356.7 km followed by Tamil Nadu, Orissa and Punjab with the road length as 152.3, 126 and 107.8 km per 100 square km respectively. The intensity of road is also higher than the all-India average of 62.1 km per hundered sq km in Assam, Karnataka, Maharashtra, Uttar Pradesh and West Bengal. However intensity of road is very low in Jammu and Kashmir, Rajasthan and Madhya Pradesh whereas it is moderate in Haryana, Bihar, Andhra Pradesh and Gujarat. As far as availability of transport indicated by the number of commercial vehicles per 100 sq km, it was highest in Kerala with number as 462 followed by West Bengal, Tamil Nadu, Punjab, Gujarat and Haryana. The intensity of transport vehicle is lowest in Madhya Pradesh with number as 23.6 per 100 sq km of area. The other states which have intensity of transport vehicles as low as almost half of the all-India average of 108.6 includes those of Himachal Pradesh, Jammu and Kashmir, Orissa, Rajasthan and Uttar Pradesh.

Agricultural production system cannot be healthy unless it is supported adequately by the strong market infrastructure for disposal of farm produce. Intensity of market structure has been measured in terms of number of wholesale markets per thousand sq km and storage facilities as proportion of total foodgrain production in the state. The intensity of wholesale markets is highest in Punjab followed by Kerala and Haryana. However market infrastructure is very low in Himachal Pradesh, Jammu and Kashmir, Orissa, Rajasthan and Madhya Pradesh whereas it is moderate in other states. As for storage facilities as reflected by the capacity in percentage of total production of foodgrains is concerned, it is very good in the states of Punjab, Kerala, Gujarat, Haryana, Andhra Pradesh and Maharashtra. Storage facilities for foodgrains are very low in the states of Bihar, Himachal Pradesh, Jammu and Kashmir, Orissa, Karnataka, Uttar Pradesh, West Bengal and Assam and are moderate in other states.

Productivity of agricultural workers is, to a large extent, influenced by the health of the rural people besides the means of production. The health of the people, however, in turn is influenced by numerous factors affecting level of living. The most common yardstick of health infrastructure

TABLE A

(i)	Village Electrified	: In proportion of the villages electrified.
(ii)	Percentage of power used for agriculture	: Full score to the states having percentage share equal to or higher than all-India average and for others in proportion to the all-India average.
(iii)	Percentage of irrigated area	: In a proportion to the percentage of area irrigated in the state
(iv)	Intensity of tubewell	: Optimum number of tubewells per hundred hectare of crop area is considered as 20, and states were assigned score accordingly in proportion of their number.
(v)	Fertiliser sale depot	: Optimum number considered is three per thousand hectares of crop area.
(vi)	Rural credit	: Desirable/required number of rural commercial Banks for per million population is taken as 10.
(vii)	Road length	: Against the all India average of 62 km per 100 sq km, 100 km per 100 sq km road length was taken as normal requirement.
(viii)	Transport vehicles	: Optimum number of transport vehicle was considered as 200 against existing average of 108.6 per 100 sq km.
(ix)	Wholesale market	: Optimum number of wholesale markets was taken as 5.0 against existing all India average of 2.4 per 100 sq km.
(x)	Storage facility	: Optimum requirement was considered as 40 per cent of the total production of foodgrains in the state.
(xi)	Agricultural Research	: Desirable number taken as 200 against the all-India average of 153 agricultural scientists per million hectares of crop area.
(xii)	Agricultural Extension Workers	: Desirable number taken as 250 extension workers against the all-India average of 95.4 per million rural population
(xiii)	Rural Health	: Desirable minimum required number of rural hospital beds was taken as 150 against the existing all-India average of 96.8 per million rural population.
(xiv)	Rural Infant Mortality rate	: Desirable/optimum level taken as 50 as against 105 per 1000 live birth at present.

is the availability of rural hospital beds per million population and infant mortality rate. The data given in Table 3 show that Punjab has the highest number of rural hospital beds as 233.5 per million rural population and lowest infant mortality rate after Kerala. The other states which have a higher intensity of rural hospital beds are Maharashtra, Assam, Tamil Nadu, Kerala, West Bengal, Himachal Pradesh and Gujarat. On the other hand, Uttar Pradesh has the lowest number of rural hospital beds as 21.8 per million rural population and highest infant mortality rate as 140 per thousand of live births. The other states having high infant mortality rate included Orissa, Madhya Pradesh, Rajasthan, Assam, Gujarat and Bihar. This shows that these states have relatively poor rural health infrastructure.

Index of Rural Infrastructure

The item and kind of activities of infrastructure put in place determine whether growth in the state/sector would be responding positively or not. Since emphasis on various items of infrastructure varied from state to state, the level of these activities also varied significantly amongst states. In order to examine the overall development, it was considered essential to build an index of rural infrastructure by combining different items. In all 14 sub-items of agricultural infrastructure were identified under nine major heads as detailed. Taking into consideration, the role and importance in influencing the level of agricultural production/productivity, each item/sub-item was assigned weight after discussion with agronomists crop scientists and other experts. The weights were assigned out of total value as hundred. The weighting diagramme for construction of index of agricultural infrastructure is shown in Table 4. Amongst the major items, highest weights were assigned to irrigation and marketing facilities for agricultural development. In the irrigation, more weight was assigned to the extent of irrigation and low weight to the source of irrigation. Under the marketing facilities, more weight was assigned to the net work of agricultural markets rather than storage facilities in the state.

Taking into consideration the available stock of infrastructural activities, the optimum/or desirable level as well as all India average, the statewise score were assigned to various activities. The following assumptions/criterion were adopted for assigning scores for different items Table A

All the states with a level of infrastructural activity equal to or higher than the above sppecification were given full score for that item and other states were accordingly scored in proportion to their level and the desired level of infrastructure activity except in rural infant mortality rate where higher value was assigned low score.

Statewise Score and Index

Scores of various items of infrastructure in different states, as per level of development indicated in Table 3 and the assumptions detailed in the previous section are shown in Table 5. Since these scores have been assigned to each item out of 100 and are additive in nature, the sum total of scores for all the items indicate the index of infrastructure of each state. It is seen from Table 5, that overall index of infrastructure is highest in Punjab followed by

Table 6 Statewise Index of Rural Infrastructure, Yield of Foodgrains and Value Productivity Per Hectare (1994-95)

State	Index of Infrastructure Per Hec (Kg)	Yield of Foodgrains Per Hec (Rs)	Value of Output
Andhra Pradesh	53.6(X)	1713(VII)	4089(XI)
Assam	50.8(XI)	1308(XI)	5402(XI)
Bihar	42.0(XV)	1446 (X)	4091(VIII)
Gujarat	55.6(VII)	1249(XII)	2062(X)
Haryana	65.9(IV)	2730(II)	7288(XVII)
Himachal Pradesh	56.6(VI)	1643(VIII)	6797(V)
Jammu and Kashmir	53.9(IX)	1632(IX)	6696(VI)
Karnataka	56.8(V)	1152(XIV)	3368(XII)
Kerala	70.0(II)	1873(VI)	8088(II)
Madhya Pradesh	42.0(XV)	1088(XIV)	2180(XV)
Maharashtra	54.4(VIII)	852(XVII)	2275(XIV)
Orissa	47.9(XIV)	1231(XIII)	2765(XIII)
Punjab	85.3(I)	3684(I)	9133(I)
Rajasthan	38.3(XVI)	906(XVI)	2109(XVI)
Tamil Nadu	68.4(III)	2358(III)	5204(IX)
Uttar mPradesh	50.1(XIII)	1932(V)	5714(VII)
West Bengal	50.4(XII)	2077(IV)	7798(III)

Table 5 Statewise Index of Infrastructure

State	Power		Irrigation		Transport		Fertiliser	Rural	Health		Marketing		Agri	Agri	Infra-
	Village Elect	Share to Agri	Per Cent Area Irri	Tube-well	Road Length	Vehicle No	Sale Depot	Banks	Rural Hospital	Infant Morality Rate	Whole Sale Market	Storage	Extention Personnel	Scientist	structure Index
Andhra Pradesh	5.0	5.0	3.8	3.4	2.8	1.8	3.7	5.1	2.4	2.8	2.9	4.1	3.2	7.6	53.6
Assam	4.9	0.5	2.1	0.0	4.2	2.6	6.6	4.1	4.7	2.3	2.2	2.0	5.6	9.0	50.8
Bihar	3.5	4.7	4.6	0.9	2.5	2.1	5.8	4.5	1.0	2.4	2.5	0.4	2.2	6.9	42.0
Gujarat	5.0	5.0	2.7	1.4	2.7	4.8	4.2	5.7	3.4	2.4	1.9	5.0	5.8	5.6	55.6
Haryana	5.0	5.0	7.5	2.9	3.0	4.2	5.0	5.3	1.1	2.7	5.0	3.5	5.7	10.0	65.9
Himachal Pradesh	5.0	0.5	1.8	0.2	2.3	0.7	10.0	10.0	3.6	2.7	0.7	0.4	8.7	10.0	56.6
Jammu and Kashmir	4.7	2.0	4.2	0.1	0.4	1.2	9.1	8.3	1.8	2.9	5.0	0.8	10.0	3.4	53.9
Karnataka	5.0	5.0	2.0	2.0	3.4	1.5	3.2	6.9	2.9	3.0	3.5	1.5	6.9	10.0	56.8
Kerala	5.0	0.7	1.5	3.0	5.0	5.0	10.0	2.2	4.1	5.0	8.9	5.0	4.6	10.0	70.0
Madhya Pradesh	4.6	4.0	2.4	1.3	1.6	0.6	2.2	5.4	0.8	2.0	1.4	2.4	10.0	3.3	42.0
Maharashtra	5.0	4.5	1.4	2.5	3.6	2.2	4.1	4.7	4.3	3.4	2.7	4.0	5.2	6.8	54.4
Orissa	3.5	0.8	3.3	0.3	5.0	1.0	6.2	5.5	2.9	1.9	1.0	1.3	10.0	5.2	47.9
Punjab	5.0	5.0	9.3	3.9	5.0	4.9	6.5	7.2	5.0	3.5	5.0	5.0	10.0	10.0	85.3
Rajasthan	4.1	5.0	2.6	0.7	1.8	1.0	1.4	5.4	1.1	2.3	1.1	2.7	5.4	3.7	38.3
Tamil Nadu	5.0	4.5	4.6	2.2	5.0	5.0	10.0	4.9	4.3	2.7	2.3	2.5	5.4	10.0	68.4
Uttar Pradesh	3.7	5.0	6.6	1.0	3.5	1.4	10.0	4.5	0.7	1.8	1.7	1.7	1.0	7.5	50.1
West Bengal	3.7	1.2	3.6	0.5	3.5	5.0	10.0	4.2	4.9	3.3	2.4	1.8	1.8	4.5	50.4
All-India	4.2	5.0	3.5	1.8	3.1	2.7	6.1	4.2	3.2	2.4	2.4	2.7	3.8	7.6	52.7

Kerala, Tamil Nadu and Haryana, the index being 85.3, 70, 68.4 and 65.9 respectively against the all-India average of 52.1. The infrastructure index is lowest in Rajasthan as 38.3 and only slightly higher than this in the states of Bihar and Madhya Pradesh with index as 42. The overall infrastructure index is also relatively low in the states of Orissa, Uttar Pradesh, West Bengal and Assam. This index is moderately good in the states of Gujarat, Himachal Pradesh, Jammu and Kashmir, Karnataka and Maharashtra. The different states which have an overall low index of infrastructure, have varied defficiencies. Rajasthan has low level of development in irrigation, fertiliser sale depo, transport, agricultural marketing and rural wealth. Bihar has low index of infrastructural activities of rural transport, credit rural health, agricultural marketing and extension services. The Madhya Pradesh has poor infrastructure in terms of irrigation, transport, fertiliser sale depot, rural health, agricultural marketing and research support. Uttar Pradesh has inadequate facilities in terms of transport, credit, rural health, agricultural marketing and extension while West Bengal has poor infrastructure in terms of power, irrigation, agricultural marketing and extension besides poor research support.

Usually the two approaches, time series or cross section data are used to examine the relationship between the growth of agriculture and expanded level of infrastructure. In this study, as statewise infrastructural indices were constructed for one year, and cross section data of different states regarding infrastructure and agricultural production had been used to examine the relationship between the two parameters. The statewise index of infrastructure, per hectare yield of foodgrains and value of agricultural production for 1994-95 are shown in Table 6. It would be seen from Table 6 that the state of Punjab, which has highest index of infrastructure, also has the highest yield of foodgrains and value of agricultural production per hectare. Tamil Nadu and Haryana which have second and third highest index of infrastructure, have third and second highest yield per hectare of foodgrains. Rajasthan and Madhya Pradesh which have a very low index of infrastructure, have very low yield per hectare of foodgrains and total value agricultural production. In some of states like Himachal Pradesh which have a reasonably high index of infrastructure have a low yield rate of foodgrains but with a high value of agricultural output per hectare because of special features of cropping system. However, in certain state like Gujarat, Maharashtra and Karnataka despite a reasonably high overall Index of infrastructure, the yield of foodgrains and the total value of output per hectare are relatively low which is partly attributed to the special feature of millet based cropping pattern and partly to poor/weak physical infrastructure like irrigation, fertiliser, sale depot, agricultural marketing and extension services.

In order to examine the role of infrastructure on agricultural development, a functional relationship was established of the form $Y = a + bx$, where Y is the per hectare yield of foodgrains or value output from agriculture and X is the index of infrastructure. The estimated equations are as under:

(i) Foodgrain

$$Y = -887.676 + 47.005\,x\ ;\ R^2 = 0.6825$$
$$(8.277)$$

(ii) Value of output

$$Y = -1634.23 + 121.5434x;\ R^2 = 0.4210$$
$$(36.8011)$$

Note: Figures in brakets indicate standard error of the coeffcient)

The estimated functional relationship revealed that index of infrastructure is significantly influencing the per hectare yield of foodgrains and value of output from agriculture in the states. The coefficient of multiple determination (R^2) showed that about 68.25 and 42.10 per cent of the variability per hectare in yield of foodgrains and value of output from agriculture in different states is explained by the overall index of rural infrastructure. With every 1 point increase in index of rural infrastructure, average yield of foodgrains is likely to increase by about 47 kg. Thus if the states that have a very low index of infrastructure like Rajasthan, Bihar and Madhya Pradesh would improve the infrastructure index even by 10 points, they could increase their foodgrains production by about 470 kg per hectare. Similarly the value of output per hectare could be raised by about Rs 1,215 at 1990-91 prices with the same magnitude of improvement in infrastructure.

The study has established strong relationship between rural infrastructural development and level of per hectare yield of foodgrains as also of value of output from agriculture. There is significant scope for increasing the yield of foodgrains and agricultural income by improving the rural infrastructure. It has also identified states like Rajasthan, Bihar, Madhya Pradesh, Orissa, etc, which have poor infrastructure and low levels of yield of foodgrains and value of output per hectare. Items which required special attention for infrastructural development in different states have been indicated in the preceding section. The development of infrastructure in these states would require large-scale step up in investment in these sectors, which may be constrained because of financial resources. However, if economic growth is to be increased in the country, particularly in less developed states, then financial resources have to be raised for improving infrastructure either by prioritisation of allocation of government resources or raising investment from private/international sources. Though the priority allocation of financial resources in infrastrucutre may affect development of other sectors in the short run, returns from this in the long-term perspective would be enormous in terms of higher rate of economic growth.

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Is Caste Appeal Casteism?

Oppressed Castes in Politics

Javeed Alam

Among the oppressed the appeal to caste is for unification of similar 'jatis' into larger collectivities and political mobilisation for power so as to subvert the very relations of the 'varna' order. Caste appeal here is, therefore, far from being casteism.

On the other hand, the self-perceived transcendence of the traditionally hegemonic middle class from caste consciousness has rapidly collapsed in the last decade. There has been a steady decomposition of the consciousness of the middle class into articulated caste interests of brahmins, thakurs and so on.

Within the Muslim communities there has been a shift away from concerns of security to those of equality and dignity – a politics in affinity to that of the dalits and the OBCs for recognition. They are therefore no more a vote bank; it is a case of alignment of interests of a secular nature, a social coalition of oppressed forces.

This fusion of opposite tendencies and intercession of contrary forces has rendered the process of democratisation more and more complicated so that simple judgments become one-sided and are a sure source of misunderstanding.

THE way we answer the question in the first part of the title is crucial in understanding the politics of the oppressed in India today, whether we take the dalits or the OBCs. Let me therefore straightaway say that it is not necessarily so that an appeal to caste for political mobilisation or for votes makes that stance casteism. Not necessarily needs emphasis because a peculiar reversal of relations within the order of 'varnas' is taking place in India today which has not been adequately analysed. It is due to this that casteism can manifest itself in the present situation even without an appeal to caste. It is also important to note in passing that this particular form of casteism has been a source of enormous strength to communalism of the militant Hindu right-wing or the hindutva forces; I will come to this issue again at a later point in the course of the argument. The rest of the paper tries to disentangle both the patterns and the causal chains implicit in the political process underway.

In an important way a seemingly unrelated issue is central in understanding the politics of the oppressed castes. Historiography has tried to come to grips with the question whether there was slavery in India in the way there was in Greece or Egypt or Rome. The debate was unfruitful as it could not throw much light on the issue. It therefore remains unresolved. I would rather like to ask what was the nature of bondage of the direct 'producer' in the Indian social formation in the pre-colonial times. This is important for the reason that what we today call the dalits or the OBCs were the producing classes in India either in agriculture or in secondary manufacture through household handicraft production or in guilds of the goods that were of general use for society or specifically for the ruling classes. All these sections of society were made up of dependent 'jatis' whether as peasants or agricultural labour or as artisans upon superior castes: dependence, in other words, were of the collectivities and not merely of the individuals. In other words the direct producers in India were unfree. But the nature of 'unfreedom' of the producers in India was of a 'collective' kind unlike the 'individual unfreedom of the European serf' or earlier on of the slaves.[1] Once the scriptural or juristic and structural condition of this bondage begins to crack, it therefore should follow that the battle for freedom too has to be of a collective nature unlike in the west where it had followed individually-oriented struggles for rights and entitlements even when these were collectively fought out. Democracy in India therefore has also become, in addition to the numerous definitions that set out its terrain, the sort of politics which the governed take recourse to;[2] to gain a voice, a foothold into something valuable, a sign of status, a measure of effective power and so on. Apart from the modern proletariat, the 'governed' in India have been largely made up of the dalits and OBCs; the category of the governed more or less overlapped with the direct producers. It needs to be emphasised that among the producers women played a very important role both in the household production and agriculture. Their work was very valuable in the maintenance of family welfare. Moreover, in the context of the level of development of the forces of production it was highly skilled and therefore comparable to those of the men in most respects. It is the connection between the nature of collective unfreedom and the politics of the governed, pronouncedly as it manifests in the post-Mandal phase, which gives us a clue to how 'castes' have acquired a decisively altered significance in the battle for democracy in Indian politics. And how within this whole framework the question of women's rights and entitlements gives rise to complicated battles where it is not an easy matter to adopt position or make judgments as we will see later.

The great merit of the concept of collective unfreedom is that it provides us with a historical basis as well as a heuristic tool to understand, what I would like to call, the great battle for bourgeois equality being fought out in the many terrains of Indian democracy whether we look at the electoral battle field, structures of power, institutions of parliamentary rule, bureaucratic set-up, educational arena and so on. India, to note in passing, is the only country in the world (from those of which data are available) where the composition of the electorate has changed in favour of the vulnerable section of the population between 1971 and 1996.[3] The proportion of those voting is tilting heavily in terms of their electoral participation. In 1996 as

against 1971 there are more of the poor, illiterates, dalits, OBCs, rural based people, Muslim sections[4] of the population, etc, among the voters. In 1971 there were more of the upper castes, well to do classes, literates, urban dwellers among the voters whereas in 1996 these same groups make up a much larger section of the non-voters.[5] In other words, the proportion of those voting out of the total electorate has remained the same, its inner composition has changed drastically.[6]

Here then we have a puzzle. All studies from different parts of the world have shown that the survival of democracy is negatively related to persistence of poverty, illiteracy, oppression and related features. And our India is incomparable very high on every one of these indices. These very sections have become the important supportive actors in the sustenance of democracy. Having pointed to the puzzle, I will not pursue the point further because it will take me into the trajectory of democracy in India which is not my purpose here.[7] What can be indicated in passing here is the direction in which to look to resolve the puzzle. More of these vulnerable people in 1996 think that their vote has an impact on the way things are run in the country and also want democracy to remain as a system of rule even if another system can solve their problems better.

Now all this has a bearing on what I have called collective unfreedom and the battle for democracy. Even a minimal move towards freedom in conditions of collective unfreedom as prevailed in India is also simultaneously a call for 'recognition'. A call for recognition is primarily for equality, to be accepted as one no different from the others. I have therefore called it a struggle for bourgeois equality, no pejorative sense is implied here in the use of the word bourgeois. One can as well call it juristic as against substantive equality, following the use of the 'juristic' Marx made in some of his early writings like, for instance, in *The Jewish Question*. Let us look at the very content of the politics of the oppressed for substantiation. There is hardly any worked-out economic agenda in their call for 'social justice' as is always the case with proletarian politics. This politics is not fighting for substantive equality, even Kanshi Ram does not ask for land reforms. He wants dalits to have power in the same way as the 'sawarnas' always exercised it over others This surely may not be a radical advance. But equally surely this represents a major shift in the terrain of democracy in India. All this has been a source of new kinds of commitments to the democratic processes in Indian politics and has given rise to a process of reconsolidation of democracy in India; marked though by two unwelcome features: instability of alliances and opportunistic shift of positions, both of which are an indication of the haste of the leadership of the oppressed groups to get into power. Let us look at this process a little closely to grasp what is not easily visible.

The battle for bourgeois equality in India is not being fought, as was the case in the west, between unequal individuals. It is being fought much rather between and by the vulnerable communities which were collectively unfree and found themselves in the realm of juristic freedom and competitive politics all of a sudden, around the time of independence. They also found their chances thwarted by the established middle class *privilegensia* composed of upper castes.[8] Two things were happening within these vulnerable communities. On the one hand because of capitalist development (especially in agriculture), land reforms, education, employment, etc, among OBCs for example and also reservations in education and employment among the dalits, class and income differentiation have been taking place and therefore a dispersal of earlier forms of concentration of power with their traditional leadership. Earlier, such castes organised as jatis were internally egalitarian because of same occupation and skill endowment and therefore similar income levels. With the break down of the close links between the ritual status and occupation and the movement of people into different occupations and acquisition of varied and dissimilar skills, jatis started becoming internally inegalitarian; the process though has a different tempo across the distinct caste leading to the formation of modern classes within the caste communities. Differentiation and dispersion of inherited bases of power, if we go by the global pattern of consequences of capitalist development, also sets in process the dissolution of the 'primordial' communities. Nothing of the sort has happened in India nor seems likely to in the near future even with the rapid individuation of interests and persons.

As a result of the capitalist development and the policy of reservations and some, though minimal, affirmative action by the state, within the class formation hinted at above a middle class as well has been in the process of formation and consolidation within these caste-based communities. A further result of this has been the impetus given in a contrary, or rather opposite, process of unification of these communities. It is in the interest of these newly emergent or *neo*, as against the established ones, middle classes to unify these communities as blocs to compete for power in democratic contestations especially the electoral competitiveness. These two contrary trends running simultaneously – diferentiation and undermining of the inherited forms of constitution of castes on the one hand and the process of internal unification on the other – represent two contradictory forces in society: one, the class formation within the communities and the individuation of interests around these and, two, the negation of the possibilities of the articulation of class tendencies as political positions. The Left therefore in today's conjuncture stands severely disadvantaged in terms of independent mobilisations. This, it seems to me, gives us a clue to the stagnation and decline of the Left in many regions of northern India where this process is now under way in a rather pronounced way. The process was going on but the battles waged by the OBCs and the unrestrained vandalism of the upper castes in the wake of the implementation of the Mandal award led simultaneously to two things.

(In parenthesis let us note in passing: Talking of the strategy and failure of development in India especially within the agrarian sphere a question in passing needs to be raised here. In a hypothetical situation of land going to the tillers as against what happened when it got passed on to the occupancy tenants belonging mostly to the intermediate and backward castes, what would have been the nature of the articulation of interests and the constitution of communities and contestations between and within them as well as the formation of classes within the castes, communities. The consolidation of the type that took

place and the consequent ascendance of caste-based communities like jats, yadavs, kurmis, marathas, etc, is inconceivable without the way land reforms got carried out. This question cannot be pursued here but it is important to raise it because it provides a link to another important point which comes up often as the relations of production within the agrarian economy and which has a close influence on the question of democracy in India – both its trajectory and inner dynamics. It is just for this reason that I want to add here that what has been said so far and what will be said henceforth about Indian democracy is based on this background understanding. There is nothing inexorable about the course of development of Indian democracy being analysed here. It has been conditioned, quite deeply, by the peculiarity of the bourgeois condition confronting Indian society. Any pre-existing social formation has many possible ways of developing in terms of the transformational strategies adopted and the nature of development of the popular movements.)

To move off from the parenthesis, first, it hastened the process of this unification under the *neo* middle classes within these communities. And together with these to a rapid decline, in fact refusal to accept at all among both the dalits and the OBCs, in notions of hierarchy, cast superiority, purity-pollution, etc. In this sense the yadavs or the kurmis or the dalits are now a caste in a nominal sense because all the normative markers of what constitutes the varna order are being rejected. Not just the normative injunctions which are under question but none of these castes any more accept the conditions of service or clientele of the 'jajmani' kind and much else which is so important for the validity of Dumont's argument. With all this has also collapsed the process of emulation for mobility in the ritual status as popularised in the term 'sanskritisation' by Srinivas. They have become a community in any sense of the term.[9] If we have a collectivity in a process of formation without the acceptance of any of the attributes which define the relations between jatis as set out in the varna ideology then the ascription of caste as its mode of social existence is difficult to sustain; more so in the realm of politics, democratic politics is in any case subversive of ordained hierarchies even if other things were to remain the same. The available varna terms stick as the varna vocabularies provide common idiom and an over-arching discursive framework not so much for internal references or self images of oppressed castes any more but much more so for mobilisation for power, to seek equality with those who consider themselves superior because they are pure. But it no longer can define the character of the collective as caste within the caste system as it earlier used to do. It is precisely here that one form of reversal of the varna order is clearly discernible. It is the upper castes of 'dwijas' who still refer to themselves with pride as brahmins or thakurs and what not and make all the efforts to enforce caste norms to sustain their social domination as a part of the class rule.

These are the communities made up of the oppressed castes which now are fighting for equality and recognition *vis-a-vis*, on the one hand, the dwija castes and, on the other, against the privileges of the established middle classes. The battle is fierce and 'ugly' and ugly because everyone among the oppressed is in a hurry and ready to jump the queue and break all the rules of the game so assiduously built up by us, the gentry. This is not to question the very worth of rules as such. But to recognise that to stick to rules assiduously is to wait rather longer in the queue and is therefore viewed as disadvantageous by the oppressed groups. We therefore must be cautious in judging by our sense of parliamentary decorum or social niceties as much of the media and drawing room conversation does. There is also the sense of hurry among the neo middle classes who lead the oppressed communities as they have no social status to inherit from their earlier life and no prior prerogative or enablement on which to build on as is the case with the established middle classes. This lack of background social asset of any kind is an important feature of the newly emergent middle classes from among the oppressed groups and therefore needs to be kept in mind for situating their political behaviour as well as opportunistic turns.

The process of extension of democracy in India has thus become a very untidy one and it does not seem to me likely that it will become any better in the short term. The understanding of this requires disentangling of the deeper processes of democratisation in Indian society which are masked by the surface features of untidiness. It is this untidiness which has been a source of so much adverse comment and condemnation by the media and other professional commentators which really has fed into, unintentionally much of the time, the propaganda machine of the hindutva brigade. The politics of the militant Hindu right-wing ever since Advani's 'rath yatra' has primarily been to arrest and roll back this process of democratisation of Indian society. This added dimension along with the earlier anti-minority bigotry and intolerance of radical dissent gives to hindutva politics a more complete fascist flavour.

Let me now terminate one side of my argument. Among the oppressed the appeal to caste is for unification of similar jatis into larger collectivities and political mobilisation for power so as to subvert the very relations of the varna order. Caste appeal here therefore is far from being casteism, as is often alleged. The allegation is based on an over-valuation of surface features and an utter disregard to the inner logic of the deeper processes in Indian politics. By the way, it is futile for us on the Left to expect a replay of the patterns of development in the wake of capitalist development in the west where communities or primordial bonds were slowly dissolved to be replaced by one supreme primordial bond, the nation. In the way that the capitalism in the third world is incapable of actualising bourgeois democratic aspiration, it is by a similar logic (of infirmity internal to it) not going to dissolve the pre-modern communities. They are going to be with us as potent political forces for a very long foreseeable future. Therefore tactical ways appropriate to the situation have to be worked out for radical advance.

What makes this battle further murky is the second process let loose by the post-Mandal struggles. There has been a steady decomposition of the consciousness of the established middle classes into articulated caste interests of brahmins or thakurs and so on. The traditionally hegemonic middle class always imaged itself as based on accomplishment, not untrue, but also believed that it has outgrown caste as the basis of its social being. The self-perceived transcendence from caste consciousness, as can now be seen as illusory, has rapidly collapsed in the last decade into a heap where they still want to be on the top of it. It has taken the form of separate spheres of varying upper caste consciousness, separate but all in close affinity one to the other. The brahmin and the baniya are therefore in a close embrace within the hindutva fold. It is the *privilegensia* striking back with reactionary sweep.

It is easy to understand this process if we remind ourselves that the established middle class was overwhelmingly drawn from its inception in the colonial times from the upper castes. It therefore inherited in the process of becoming property, prestige and power from its prior status. Its hegemony because of the head start in

economy, bureaucracy, and other institutions of public life did not make it feel the need to think in terms of caste but could consciously and by habit talk of itself as having transcended the caste barriers. It is this consciousness that has decomposed. Now as various upper castes, they seek to preserve their privilege by any means; but relying mainly on modern discursive jargon. Merit and efficiency are important in any modern society, that is why affirmative action is of such crucial importance for the socially disadvantaged. But if these same qualities are abstracted from larger considerations of social welfare and equity then this leads to deification and deification is a disguised mode of defence of vested interest; recall Marx's analysis of the fetishisation of commodities.

If the sawarnas still do not like to talk in terms of the caste nomenclature there is available the hindutva idiom and its platform where these middle classes can hide their newly discovered caste interest in seeking indentification with 'national interest'. We therefore can see the paradoxical spectacle of the most 'up-to-date personality' in India together with their caste brethren making a beeline into the folds of militant Hindu right-wing politics. It is therefore right to consider these as the most anti-democratic section of Indian society. The sudden shift of the upper castes from secular politics and the Congress Party, a representative of the secular tradition of the ruling class interest, is the manifestation of the decomposed consciousness presenting itself now as the broken bits of the old unity called the 'middle class' but refusing to recognise itself as having broken into its caste components seeking to secure the privilege, as reaction. Here is the second component of my poser right in the beginning. The argument of the hegemonic middle class about the efficiency of the brahmin or their cohorts among other sawarnas is casteism of an unalloyed kind. Hence the attraction of hindutva, a disguise to hide your holy nakedness. And hindutva has by now placed itself as a strategic presence to tame the upsurge among the oppressed communities by accommodating them in subtly worked-out modes of dependence; though this is not without its own contradictions.

That is why, to take a quick note of it, the Muslims too are in the thick of the battle for democracy; quite in the way the dalits and OBCs are. There is a split between the Muslim masses and the gentry which always provided it the leadership. The Muslim masses today find their traditional leaders from the gentry a hindrance to what they want to seek. As an aside, a Shafique Ahmed can surely become a governor but is in no position to even win a municipal election from a Muslim constituency. An ordinary Muslim would rather vote for a yadav or kurmi put up by Mulayam Singh or Laloo Yadav than to one from their own upper classes. Whether or not it represents a step towards being secular, definitionally, it is an important step in the direction of secularisation of politics. Ordinary Muslim masses find these communities of OBCs and dalits as placed adjacent to them and not in a relationship of dependence as it was in the case of their earlier relationship with the Congress. Adjacent is of considerable importance here. They are not one with them in any simple way. There has been a shift away within the Muslim communities from concerns of security fostered by the Congress to those of equality and dignity; a politics in affinity to that of the OBCs for recognition. They are no more therefore a vote bank; it is a case of alignment of interests of a secular nature, a social coalition of oppressed forces.

This contest and struggle is what has given a new rigour and strength to the liberal face of Indian democracy, even if it has failed to radicalise the transformative agenda and the vulnerable sections of the society are the co-pillars of this commitment for liberal democracy. This ought to be recognised and fore-grounded. Recognition of this fact is also important because in the unseemly behaviour of the political formations of the oppressed communities there has been a fear that this may be undermining parliamentary tradition which sustain the democratic polity. Whatever be the nature of wheeling and dealing between them and the indecorous political behaviour, the politics of the oppressed has also been responsible for the sustenance of traditions of civility between the communities and the secular character of the polity. This is an important gain in the face of ascendance of the politics of intolerance and hatred as practised by the hindutva. Indian state has not become fascist but the rule of the militant Hindu right-wing has given rise to all the fascist symptoms i the Indian society. Earlier in the wake of the campaign for the demolition of the Babri masjid and in the immediate aftermath of it, riots and pogrom were used to Hinduise national sentiment and consolidate these. Today there is a discernible change of tactics. In the highly visible and publicised persecution of Christians, and to a lesser degree of Muslims, the effort seems to be to make the everyday life of the minorities difficult. Undisturbed rhythms of everyday life are very important for a sense of peace and security. Small insults and indignities heaped often at so many points in the daily routine make life impossible to live. This exactly is what hindutva has now taken recourse to, pronouncedly with the Christians. This is an effective tactic to unnerve the ordinary people and yet get away with it. Indian society over the years of excessive and often gruesome violence has become insensitive to small acts of violence and invasions into the lives of others. Because there is no large-scale violence fascists can get away by saying that 'hardly, any one has been killed in Gujarat' and the loss of property is 'not even a few lakhs' and therefore what all we are hearing is an exaggeration of the English press. The shame of the matter is that the prime minister of the country endorses such a pernicious position. The tactic now seems to be to insensitise people to the importance of dignity in the ordinariness of everyday life.

In spite of all that is positive in the politics of the oppressed communities, there is a great infirmity in this battle for bourgeois equality. Each community wants to preserve its own internal relations of power and it is here they also take recourse to traditional ways of enforcing compliance. The worst result of all this is that the women are systematically excluded from the fight for equality. Women as restricted part of these communities are a segment of this process of egalitarian thrust *vis-a-vis* the women of the upper castes. But as persons within these communities remain, or are in fact becoming more, unequal in relation to men. In the beginning of this argument we noted that women in the pre-colonial economy performed valuable labour and in terms of skills their work was comparable to that of men. All this is changing in an adverse way for them. With the development of the forces of production they have suffered a downward mobility. As their work has remained static in relation to the development of skills in society its value has been going down; in other words it is becoming de-skilled in relation to the work done by men. This is perhaps more pronounced in the case of OBCs as compared to the dalits. Nevertheless, their work in all the oppressed communities has become marginal and their economic dependence on men has correspondingly increased.

What make matters worse for women are the moral codes which define life

within these communities. These moral codes militate against equality and gender dignity. They are always imposed and never advocated. It is here in terms of the criteria of advocacy as against that of imposition that we get a criterial basis to make judgments between modern moral outlooks and traditional moral codes. Any one of the modern moral outlooks seek compliance in terms of advocating a certain way of doing things which in turn involve, many a times, a great deal of persuasion. Quite to the contrary, traditional moral codes are more often imposed with threat of retaliation as the basis for compliance. It is therefore always in terms of the form and not necessarily in the content that the modern moral outlooks can claim a certain superiority.[10]

We must therefore be wary of defending difference unconditionally on the ground of the rights of the communities to a way of life, as many are doing against the homogenising tendencies of modernity. In the name of democracy we cannot also allow indignities and atrocities to go on because communities are so constituted or alternatively wait idefinitely for an alternative to emerge from within the community. Given their codes the dice is loaded against the vulnerable within, more against some like the women than the others.[11] While it is important to respect difference of culture and belief, this however must be on two conditions: that any practice which militates against the dignity of a person must be forced to defend itself and that the state must be forced to protect the person even if it means coercion.

So while we recognise the valuable nature of the shift in Indian politics which seemingly is based on castes but we also have to engage in a sustained democratic struggle against the inegalitarianism and hidebound outlooks inherent in the emergent communities in India; especially their gender blindness. In other words, while we welcome the extension of democracy in India, we simultaneously have to struggle to deepen democracy on this expanding canvas. Deepening of democracy apart from substantive content, requires two formal conditions in the Indian situation. Dalits and women have to bcome bearers of entrenched rights. Only then these communities can be made to embody a condition of rationality; that is, critical scrutiny and reflection as a pre-condition for claims on others.

In this process of democratisation that is becoming more and more complicated in the fusion of opposite tendencies and the intercession of contrary forces, simple judgments become one-sided and are a sure source of misunderstanding. The Left in particular has to be rather cautious because it is the only force which can give an anchor to this process and to the forces involved in it for a radicalisation of democracy as prelude to, when feasible, revolutionary advance.

Notes

[I would like to express my deep gratitude to D L Sheth for long hours of discussions which are still going on I am also thankful to Ambrose Pinto for giving his comments An earlier draft of this was presented at a seminar in the Department of Political Science, Punjab University, Chandigarh, where questions and comments were helpful in clarifying many issues]

1 Here I am building on a stray comment by Partha Chatterjee in *A Possible India*, OUP, New Delhi, 1998, ch 1.

2 I draw once again on Partha Chatterjee who has defined democracy in relation to India as "the politics of the governed", ibid.

3 CSDS Data Unit, based on a cross-polity survey conducted immediately after the 1996 parliamentary elections. The data for 1971 are also from a similar survey done then These two points in time are good references for comparison because the voting percentage had by then stabilised around 60 per cent Before that it had shown wide fluctuations

4 According to the CSDS data, if one were to take out 6 to 7 per cent of those who belong to the gentry or the middle classes among the Muslims, then the condition of the ordinary Muslims is no better than that of the dalits or the most backward castes

5 CSDS, op cit

6 Let us take two caste categories for illustration In 1996 against the average polling of 58 per cent, there are 1 per cent more OBCs voting as against 2 per cent less of the upper castes, that is 59 per cent OBCs vote as against 56 per cent of the upper castes It is more pronounced in case of the dalits On the same calculation as above, 60 per cent of the dalits vote as against 56 per cent of the upper castes Now if we convert the per cent figures into absolute numbers these will run into millions given the size of the electorate

Now this completely goes contrary to what western psephology has taught that education, status, well-being are all positively correlated to the act of voting This was quite so earlier in India but has changed completely in recent years. We cannot say when exactly this start happening but it is possible to infer, as w be evident in the argument in the text, th such a process has its beginning in the pos Mandal phase Nevertheless what remai clear is that this pattern has continued in eve election since whenever elections were hel since 1996 whether for parliament or the sta assemblies.

The inner consistency of the data can t checked by looking at the comparison betwe the illiterates vs the educated We get the sar results

7 I have worked on these questions in m forthcoming book *Democracy in India*

8 The closest analogy to this is the way t struggle of the ethnic communities went in America. The various migrant groups li the Irish, the Poles, the Italians and so sought to seek equality against the Whi Anglo Saxon Protestants (WASP) wh monopolised the positions of power and stat as the first migrants The process work relatively smoothly because of the continuo territorial expansion and unlimited econom growth The theory of melting pot worked i this specific context Today with the dryi up of both expansion and growth there is reassertion of diferent ethnic identities li those of the Hispanics, Blacks and other lat migrants. It is important to note that the were the very groups which did not gain o of the expansion and growth Today therefo there is a lot of woolly talk of multi-culturalis around in North America

9 Communities can be identified when the articulate in a socio-political context. A fixe definition can be a source of mis-specificatio Community boundaries vary as per the conte For example, in the face of the onslaught the hindutva forces Muslims or Christian may consider themselves and act a communities But in a situation, say of stri between the Shias and Sunnis, these the constitute themselves into communities i that context Such examples can be multipli in different ways, for example, a village get constituted into communities in a differe way during 'melas' then when it is in a feu with a neighbouring village.

10 For an illuminating discussion on this issu see Stephen Toulmin, *Reason in Ethic* Cambridge University Press, Cambridg 1961, esp pp 137 43.

11 For a sampling of the severity of law this ca work against women see Prem Chowdhr 'Enforcing Cultural Codes, Gender an Violence in North India', *Economic an Political Weekly*, May 10, 1997.

Kashmir: Sources of Conflict, Dimensions of Peace

Sumantra Bose

This article identifies and develops essential elements of a multi-dimensional approach to gradually, incrementally de-escalate the Kashmir conflict. It first pinpoints the essential features of that conflict, stressing that the problem has both exogenous sources in the form of the broader regional conflict between India and Pakistan, and endogenous sources, in the form of the existence of several fundamentally different political allegiances and preferences among the socially heterogeneous population of Kashmir. It also explains why neither plebiscite nor partition present viable means of resolving the Kashmir conundrum, using analogies and examples from Bosnia-Hercegovina and Quebec in the process. The article then develops one by one three interlocking dimensions of an alternative peace-building approach which takes account of the complex intersection of multiple, cumulating 'domestic' and 'international' factors that collectively define the contemporary Kashmir problem. This three-track approach is inspired by the ongoing strategy of building peace in northern Ireland and derives much of its substance from the central aspects of the Good Friday Agreement. The approach takes into account the legitimate concerns of Indian and Pakistani state elites with basic issues of territorial sovereignty, national interests and security, while accommodating the equally legitimate aspiration to self-rule of a large segment of the population of Kashmir.

Introduction

IN the wake of a relative 'thaw' in India-Pakistan relations following the Indian prime minister's shuttlebus diplomacy to Pakistan and the Pakistani prime minister's return visit to India, it has become ever more imperative for the south Asian region to seriously come to grips with the Kashmir problem, which is as old as the two countries themselves.

In this article, I try to do two things. First, I try to pinpoint – in a deliberately clinical vein – what the essential sources and features of the Kashmir conflict are today. I suggest, in the process, that the sources of conflict, while interrelated, are multiple and complex. Second, I try to develop the essential elements of an approach geared towards the gradual, incremental de-escalation of the Kashmir problem which takes into account its inherent complexities and multi-dimensionality. Note that mine is an attempt to identify the essential dimensions of a peace-building approach, and not to prescribe what a 'solution' to this problem might be: there is a fundamental difference between the two. My ideas in this regard have been inspired by the ongoing peace process in northern Ireland, especially certain central aspects of the Good Friday Agreement to build peace there signed in April 1998. There are several significant similarities in the configuration of the problems in northern Ireland and Kashmir, particularly in the complex intersections of a variety of 'domestic' and 'international' conflict-producing factors in both cases.

Sources of Conflict

In its contemporary incarnation, the Kashmir conflict has both exogenous and endogenous sources, which reinforce each other in a particularly intractable combination. Let me identify the exogenous sources first.

The major exogenous source is of course the broader regional setting – the very deep-seated mutual hostility between India and Pakistan which manifests itself above all over the focal point of Kashmir. It is incorrect in my view to regard Kashmir as the cause of the India-Pakistan conflict; that conflict has deeper roots and is much more than just Kashmir. However, it is correct to regard the real estate dispute over Kashmir as the single most important symptom of that deep-rooted animosity. Both countries have chosen to make possession of Kashmir central to the *raison d'etre* of their respective national existences – 'secular' nationalism in the case of India, Muslim nationalism in the case of Pakistan. The result of this competition are maximalist, zero-sum claims to Kashmir which are fundamentally irreconciliable with each other. In their present form, they leave absolutely no scope for any kind of compromise through dialogue and negotiation.

There are also, however, formidable sources of conflict which are endogenous to Kashmir itself. Jammu and Kashmir – both the two-thirds of the pre-1947 princely state which is under Indian control as well as the territory as a whole, encompassing the remaining one-third which is under Pakistani control – is no unitary phenomenon. In fact, it is just the opposite. Not only is it composed of several distinct geographical regions (Kashmir Valley, Jammu and Ladakh in India, the Azad Kashmir districts plus Gilgit and Baltistan in Pakistan), but its population is divided into a bewildering multiplicity of religious, ethnic, linguistic and caste groups. This means that not only are there Muslim, Hindu, Sikh and Buddhist elements in the population, but that the two major elements – Muslim and Hindu – are further divided internally along faultlines of region, ethnicity, language, caste and political affiliation. Thus for example, the typical first preference of a Kashmiri Muslim from the Valley – the historical centre of Kashmiri autonomism once personified by Sheikh Mohammad Abdullah, the 'Lion of Kashmir' – is an independent Jammu and Kashmir. But that of his gujjar co-religionist in Jammu is usually to stay within India (though not necessarily on any terms).

Along with this social fact of inherent diversity and the existence of multiplicity of complicated, cross-cutting linkages and cleavages, there are several distinct political identities and orientations in Kashmir. I am talking here not of partisan political preferences of a narrow sort, but of basic political allegiances – which national identity is preferred by people as individuals and as members of different communities in Kashmir, and which state they identify with and wish to belong to. In Indian-controlled Kashmir, there are three distinct political orientations in this fundamental sense – pro-independence (the preference of a decisive majority in the Valley and of a sizeable minority in the Jammu region), pro-India (the preference of a majority in Jammu as well as in Ladakh and of a small minority in the Valley), and pro-Pakistan (the preference of a relatively small minority in the Valley and an even smaller one in Jammu). While I am in a less authoritative position to comment on the corresponding situation in Pakistani-controlled areas (not having had the opportunity to do field research there), I believe two major and fundamentally different political orientations exist there as well – loyalty to Pakistan and support for the 'third option' of independence.

The major endogenous source of conflict in Kashmir is that these different political orientations are fundamentally irreconcilable with each other. While most types of political disagreements are amenable to some sort of resolution through negotiation and bargaining, there is one specific type of disagreement which is usually not – differing conceptions of what one's national identity is and with which state one's basic political allegiance lies. In societies that are divided along this crucial, highly intractable faultline, attempts to forcibly impose the preferences of one group on the others in the population, or to resolve the issue through popular referenda (plebiscite) decided on the majoritarian principle (fifty per cent plus one) are not only untenable. They are positively dangerous, recipes more for civil war than anything else.

Recent experiences in Bosnia-Hercegovina (BiH) and Quebec, as well as northern Ireland, powerfully corroborate my argument. In a 1992 independence referendum in BiH, 63 per cent of the eligible electorate turned out (almost all of whom were Bosniaks or Muslim Bosnians and Croats) and 98 per cent of these voters supported Bosnian independence, which followed, along with international recognition, in short order. However, the referendum was massively boycotted by the Bosnian Serb community (about 35 per cent of the population), who disagreed with its very rationale. The descent into civil war in Bosnia became inevitable the day the results of this referendum became known. That turned out to be not a two-cornered but a three-cornered civil war, since unlike the Bosniaks, most Croats who participated in the referendum and voted yes had done so not out of any sense of allegiance to an independent state of BiH, but because they hoped that BiH's separation from the Serbia-dominated rump of Yugoslavia (Slovenia and Croatia had already seceded from Yugoslavia by that time) would be but a stepping-stone to the annexation of large Croat-dominated areas of BiH by the newly independent Croatian state. Three and a half years after the formal end of that civil war, Bosnia-Hercegovina still lies effectively partitioned into Bosnian Serb, Bosnian Croat and Bosnian Muslim statelets, and each of those three zones of control has an overwhelmingly nationally homogeneous population engineered through mass murder and even more massive expulsions and forced deportations, eerily reminiscent of the partition of India in 1947 (Bosnia was a patchwork mosaic of the three groups till the war).

A 1996 independence referendum in Quebec was defeated by the narrowest of margins – 50.4 per cent of those voting said *Non* to independence while 49.6 per cent said *Oui*. The referendum completely polarised the electorate, with the pro-independence majority of the Francophone population (who make up about 80 per cent of Quebec's total population) pitted in a bitter confrontation with the very large anti-independence minority among the Francophones themselves, allied with the overwhelmingly anti-independence minorities in the population (Anglophone Quebecers and the native Indian peoples). Civil war did not result in Quebec, but Kashmir and south Asia are relatively speaking much more similar to Bosnia and the former Yugoslavia than to Quebec and Canada. In any case, even if the outcome of the Quebec plebiscite has been exactly the reverse – 50.4 per cent for independence, 49.6 per cent against – the problem would still not have been resolved. Indeed, an even more volatile situation would have been created with one-half of the citizenry triumphantly celebrating the dawn of 'freedom' and the other half feeling totally insecure and furious about being forced into a new state against their will.

These examples dramatically expose the great limitations and dangers of using plebiscitary-majoritarian mechanisms to decide highly sensitive issues of 'self-determination'. In the case of northern Ireland, of course, the Good Friday Agreement promises that northern Ireland will not be detached from the United Kingdom and be made part of an unified Ireland unless and until a simple majority of the electorate of northern Ireland ratify such a change through a popular referendum. There is more to this clause than immediately meets the eye, however. The architects of the Good Friday Agreement are perfectly aware that such a situation will not transpire in the next 20 to 30 years at least, since the (pro-unification) nationalist Catholic population, which has been growing faster than the (pro-British) unionist Protestant population, will nonetheless not become a majority of the adult voting population for at least another generation. (Catholics are currently 41 per cent of population of northern Ireland, up from 33 per cent in 1920, while Protestants constitute the remainder. However, 52 per cent of all four to nine-year-olds in northern Ireland are Catholic; this is the so-called demographic 'time-bomb' of Ulster politics.)

In other words, the plebiscitary-majoritarian provision on northern Ireland's future contained in the Good Friday Agreement has been put there by its architects secure in the knowledge that there is no prospect of its implementation for at least another 20 years. If not, I doubt it would be there in the first place; and when in a couple of decades the time does come to determine northern Ireland's final constitutional status, I doubt it will be determined *simply* through a plebiscite decided on the 50 per cent plus one formula. Even assuming, as the architects of the Good Friday Agreement obviously hope, that a significant improvement, based on political power-sharing, does occur in relation between Ulster's two communities in the interim, use of that mechanism and nothing else would probably still be rife with enormously inflammatory possibilities down the road. In Kashmir as in Bosnia, recourse to the plebiscitary-majoritarian method is simply a non-option. It has inherent risks and problems, aside from the facts that India will never allow such an exercise and Pakistan will not agree to it either unless the 'third option' is excluded (in which circumstance a plebiscite loses all meaning for the large pro-independence sector of the population in both Indian and Pakistani-controlled areas).

Combine exogenous and endogenous factors, and the Kashmir conflict looks almost impossibly intractable. To the citizen of Jammu and Kashmir whose fundamental allegiance lies with India, the only legitimate unit of governance is India – including Kashmir. To the citizen whose basic identity is with Pakistan, the only legitimate unit of governance is Pakistan – including Kashmir. To the citizen fundamentally committed to the achievement of an independent Kashmir, the only legitimate unit of governance is an as yet phantom state of Jammu and Kashmir full independent of both India and Pakistan. This configuration of the problem is similar to that in Bosnia: with the Serbs committed to retaining Bosnia as part of an united Yugoslavia or failing that, incorporating as much of it as possible into a Greater Serbia; the Croats looking to merge as much of Bosnia as possible, especially those areas with majority Croat populations, into an emerging Greater Croatia; and the Bosnian Muslims stranded between the devil and the deep sea, their leadership stating a declaratory commitment to an united multinational Bosnia but quite unable to persuade Serb and Croat citizens about the legitimacy of such an entity.

There is obviously no space whatsoever for finding any resolution to the Kashmir conundrum within the present framework of three zero-sum, competing and mutually incompatible nationalist claims to its territory and population. The framework itself needs to be radically modified if there is to be any prospect of progress towards building a viable peace in Kashmir. This is especially so because each of the three maximalist positions of Kashmir suffers from crippling deficiencies.

The Indian commitment to retaining Kashmir as an 'integral part' of the Indian union on its own terms can only be realised, as the history of the last 50 years demon-

strates, by suspending the basic civil rights of the citizens of Kashmir, largely disallowing their democratic right to popular representation, accountable government and federal autonomy, and – when all else fails – setting up a regime of military occupation across large areas of Indian-controlled Kashmir and unleashing a campaign of sustained repression against its population. A high and rather embarrassing price to pay for keeping Kashmir as the jewel in the crown of secular, democratic India; but not too high, most of the Indian establishment still thinks.

The maximalist Pakistani claim to Kashmir is seemingly utterly blind to the reality not only that a significant proportion of the population in Pakistani-controlled Kashmir may in fact prefer independence as a first choice, but more importantly, that only a small minority of the population in Indian-controlled Kashmir wants to join Pakistan. Even in the part of Indian-controlled Kashmir most disaffected with the authoritarian militarism of Indian rule – the predominantly Kashmiri-speaking and Muslim Valley of Kashmir and a few contiguous areas of the Jammu region – the overwhelming popular preference is for independence. The attitude of these independence supporters towards Pakistan varies – from lukewarm at best to venomously hostile at worst.

The standard independentist line has problem of its own. It lays claim to the entire territory of pre-1947 Jammu and Kashmir – encompassing both Indian and Pakistani-controlled portions - for its putative independent state. But the ideologues of independence are seemingly oblivious to the reality that the population of that territory contains very large numbers of people – almost all Hindus, Buddhists, and Sikhs who live in Indian-controlled Kashmir as well as a sizeable proportion of Muslims living there – whose fundamental, non-negotiable allegiance is to India (these are mostly ethnically and linguistically non-Kashmiri Muslims of the rajput, gujjar, pahadi and shiite communities, who comprise most of the Muslim population in Jammu and in Ladakh, though there is a small minority of India backers among Kashmiri Muslims as well). Moreover, a large proportion of the population of Azad Kashmir and the northern areas, which constitute Pakistani-controlled Kashmir, are probably quite happy being part of Pakistan and have no interest in the independence idea. These pro-India and pro-Pakistan populations are extremely unlikely to voluntarily consent to becoming citizens of a new, independent state of Jammu and Kashmir. Moreover, the method proposed by most independence advocates to settle the question of 'self-determination' - the plebiscite decided by simple majority – is utterly insensitive to the regional and other forms of social and political diversity in Kashmir. Its use would be akin to bludgeoning with a blunt instrument a patient in dire need of tools of surgical precision.

The three contending maximalist claims to Kashmir are mirror images of one another in one important sense. All advance a rhetorical claim to the entire territory of Jammu and Kashmir as it existed prior to 1947 – though India actually has long wanted the line of control separating Indian and Pakistani-controlled Kashmir to be made into the permanent international boundary, which Pakistan as well as most pro-independence Kashmiris do not want to accept. But none of the three is able to command the loyalty of more than a segment of the population of that territory. The promoters of the independence option most probably have the support of the single largest segment – but no more – followed by India and Pakistan supporters, in that order. In short, the contemporary Kashmir problem is a cul-de-sac of monumental complexity.

Partitionist options have no potential to resolve this tangled situation. Quite apart from the distasteful, indeed horrific images stirred up by any mention of partition in a subcontinental context, and the fact that no serious political force anywhere in Jammu and Kashmir advocates such options openly (in fact, most are resolutely opposed to any such formula, especially the independentists), partitionist ideas have almost insurmountable practical problems. Since partitionist options are usually advocated precisely on grounds of 'practically' alone – for they are almost invariably ethically obnoxious – this is, no doubt, a very serious problem.

For example, if the Kashmir Valley, the locus of the Kashmiri independence movement from the 1930s till the present, were to be hived off from the rest of Indian controlled Kashmir to form an independent state (something India will never allow anyway), the population of the new state would include a minority of Hindu and Muslim citizens whose basic loyalty is to India, as well as another minority of Muslim citizens whose basic loyalty is to Pakistan. Most of these people would probably prefer to migrate permanently from their homeland rather than put up with such an eventuality, and some would work very hard to subvert the new state from within – or from exile, for that matter. The fact that these people would be a numerical minority in the new state does not at all mean that the question of their rights is politically insignificant. The prospects of minimum viability and survival of an independent Kashmir Valley in such circumstances is obviously suspect.

Moreover, a large number of independentalists would be left outside the borders of such a state, for example in the mountainous district of Doda in the Jammu region, contiguous to the southern parts of the Valley. Fifty-seven per cent of Doda's population consists of Kashmiri Muslims who by and large support independence. However, the other 43 per cent are Hindus who not only love India but usually support the Hindu nationalist Bharatiya Janata Party (BJP). In the congested towns of Doda district, one neighbourhood defiantly flies the green flag of Islam and sometimes, the PLO-style tricolour associated with the independentist creed of the Jammu and Kashmir Liberation Front (JKLF); the walls are splattered with graffiti hailing the martyrdom of those who have given their lives for *azaadi* (freedom). Right across the main street, the other *mohalla* (quarter) rejoices in a sea of saffron flags, the colour of militant Hinduism, and the other tricolour, that of the Indian Republic; the slogans on the walls proclaim eternal allegiance to one India, united and indivisible.

Though an extreme case even by Kashmir standards, I cite the example of Doda precisely because it graphically illuminates both the complexities of the contemporary Kashmir problem as well as the futility of partitionist prescriptions in dealing with that problem. Maximalist, zero-sum rhetorics – the common attribute of the approaches of the two national governments as well as that of the aspirant third national government, the Kashmir independence movement – can pretend these complexities do not exist. In the process, all they achieve is a dialogue of the deaf – if that – and a freezing of the past and present stalemate in perpetuity. But in real life and on the ground in Kashmir, these complexities continue to exist, and suggest that an alternative approach to building peace in Kashmir is strongly called for.

Dimensions of Peace

In the rest of this article, I identify and briefly discuss the three essential dimensions of such an alternative approach, derived from the ongoing experience of untangling a similarly bitter and historically rooted conflict – involving, like Kashmir, closely related, cumulating 'internal' and 'international' aspects – in northern Ireland. Note once again that what I outline here is an approach to making peace – that too through a very gradual, incremental strategy – not a substantive solution. Even in the most optimistic circumstances, Kashmir, like Ulster, will persist as an exceptionally thorny problem for a long time to come. The question is really whether the various parties to the conflict can, as

in Ulster, be prevailed upon to continue their dispute by more civilised means in the future than has been the case in the past and present. As one wit has rationalised the blockages that keep arising in the northern Ireland peace process, shouting, however unpleasant, is still preferable any day to shooting.

The three dimensions of my proposed alternative approach to Kashmir are, like the roughly analogous three 'strands' of the peace process in northern Ireland, interlocking and mutually dependent. They represent three parallel tracks of an integrated approach designed to more or less simultaneously address the interlocking constellation of domestic and international factors that together define the Kashmir problem. Let me preface my sketch of that three-dimensional approach by saying that the current situation in Kashmir is in one important way very similar and in one important way very dissimilar to the corresponding political climate in northern Ireland.

First, the similarity. As in Ulster, there is a deep and widespread weariness with violence in the strife-torn areas of Kashmir, and a deep public yearning for the gun to be taken out of politics. But as the example of northern Ireland demonstrates, before the gun can be taken out of politics, those wielding the gun or supporting its use as a political weapon have to be recognised and validated as bona fide participants in legitimate, institutionalised politics – to the greatest degree possible. Demonisation of entire sectors of political opinion as practitioners or apologists of 'terrorism' and 'fundamentalism' – and their exclusion from political and diplomatic processes on the basis of such characterisations – will guarantee a continuation of violent, polarised conflict.

Now for the big dissimilarity. Setting aside a history of centuries of hostility and distrust between their nations, the governments of Great Britain and the Republic of Ireland have for the first time in the 1990s demonstrated the determination and the capacity to jointly tackle the problem of northern Ireland, the overriding priority of the joint effort being not the realisation of anachronistic national egos and agendas but the establishment of a framework that will enable a durable peace and co-existence in Ulster. This is a new development – till the 1980s, the British and Irish governments were more or less content to lend their support, albeit in qualified and modulated ways, to the more 'moderate' articulations of the zero-sum (pro-British) unionist and (pro-Irish) nationalist positions within northern Ireland.

The British and Irish governments have also realised that for the joint effort being directed from London and Dublin to have any chances of success, it must come to grips with the internal complexities of Ulster politics and accommodate the participation in the peace process of as wide a spectrum of the divided and disputed province's political opinion as possible. This includes both 'moderate' (Social Democratic Labour Party – SDLP) and 'extremist' expressions (Sinn Fein – SF, the political wing of the Irish Republican Army or IRA) of nationalist opinion, as well as the corresponding moderate and to the extent possible extremist expressions of unionism (the Ulster Unionist Party or UUP representing the first category and the Democratic Unionist Party or DUP as well as smaller but politically crucial front parties of Protestant paramilitary groups opposing the IRA the second). The authorities in London and Dublin know that the Anglo-Irish Agreement of 1985 – an earlier move towards a rapprochement on northern Ireland – eventually failed to deliver on its promise precisely because it was concluded on a bilateral basis between the two governments, and failed to take into account the internal complexities of Ulster politics or to obtain the support of its most important actors. In total contrast to the Good Friday Agreement, which was developed through all-party talks organised and supervised by the British and Irish governments, the Anglo-Irish agreement was supported solely by the moderate nationalist SDLP. It was unequivocally opposed by Sinn Fein as well as by the entire range of unionist political opinion.

Such is obviously not the situation prevailing in the subcontinent. The Indian and Pakistani governments have, as yet, demonstrated no serious willingness or capacity to set anachronistic national egos and agendas aside. The deeply troubled, indeed precarious domestic political circumstances of both countries (especially acute in Pakistan) do not permit much optimism that they will. Nor have the two governments shown much willingness, as yet, to acknowledge the complexities of Kashmir's internal politics and to recognise the major representatives of the different political tendencies within Kashmir as important actors in their own right, rather than as puppets to be manipulated or 'enemies' to be demonised. However, for any future peace process in Kashmir to have any viability at all, there has to be some prior progress on both these counts.

Dimension I: The Delhi-Islamabad Axis

Dimension I of the alternative strategic approach to Kashmir has its rough equivalent in Strand III of the northern Ireland peace process, which is intended to foster the "harmonious and mutually beneficial development of the totality of relationships" between the governments and populations of the British and Irish Isles. It finds institutional expression in a 'British-Irish Council' and a 'British-Irish Intergovernmental Conference'. These bodies are intended to promote overall co-operation on a full range of matters between the two countries – and constituent units thereof – as well as provide guidance and direction to the peace process within northern Ireland. They have representation from high levels of the two national governments (they are jointly chaired by the prime ministers of Britain and the Irish Republic), from parliamentarians on both sides, and from among executive members (ministers) of devolved autonomous regional governments not just in northern Ireland but also Scotland and Wales.

Strand III is generally regarded as the least difficult and problematic dimension of the northern Ireland peace process (hence it is Strand III), given the demonstrated common commitment of the British and Irish governments to find a durable democratic solution to the conflict in northern Ireland and to co-operate on all other outstanding issues as well. In the case of south Asia and Kashmir, however, the dimension of overarching inter-governmental co-operation clearly needs to be developed on a priority basis – given the retarded and conflictual nature of the India-Pakistan relationship – if the other two dimensions, which are specific to Kashmir, as well as any peace-building process as a whole, are to stand any chance of success. For this reason, the urgent task of building a viable Delhi-Islamabad axis is Dimension I here.

In practical terms, this could mean the establishment of a permanent India-Pakistan intergovernmental conference to promote the harmonious and mutually beneficial development of the totality of relationships between the two countries. This body should be chaired by the respective prime ministers, and its twice-yearly plenary meetings could be rotated between Indian cities like Delhi and Calcutta and Pakistani cities like Islamabad and Lahore. Other representatives to this body would include ministers, bureaucrats and parliamentarians from both sides, who can meet separately with their counterparts to consider ways of developing co-operation in their specific areas of policy responsibility.

This intergovernmental conference should have a standing committee on Kashmir. Whether or not Kashmir is 'the core issue' of India-Pakistan relations (as the Pakistanis say) or just one among a number of outstanding issues (as the Indians claim), it is certainly important enough to be treated as a priority issue on the agenda of regional co-operation. This standing committee should be chaired by

the respective prime ministers and should include the foreign, defence and interior ministers as well as the defence chiefs of both countries as permanent members. It should also include the senior professional civilian officials of the foreign, defence and interior ministries and of the respective prime minister's offices (PMOs), senior parliamentarians belonging to different parties from both countries, as well as prominent citizens in India and Pakistan who have shown a commitment to improving relations between their countries. At a later date, executive members of freely elected autonomous regional governments in both the Indian and Pakistani sectors of Kashmir (see Dimensions II and III below) should also be included as representatives on the Kashmir committee of the intergovernmental conference.

Dimension I, if realised, would send an unequivocal signal that the governments and high policy-making circles of both countries are committed to addressing all their differences, including especially the Kashmir dispute, through co-operation rather than conflict. This, to reiterate, is an essential pre-requisite for progress on the other two, Kashmir-specific dimensions as well as for the minimum viability of the approach as a whole.

Dimension II: The Delhi-Srinagar and Islamabad-Muzaffarabad Axes

Dimension II is roughly equivalent to Strand I – which is the single most crucial strand – of the northern Ireland peace process, and has similar objectives. The key objective is what might be called the gradual, incremental normalisation of politics within Kashmir (in both Indian and Pakistani-controlled zones), and the devising and implementation of political frameworks which can foster a working degree of internal accommodation and co-operation within Kashmir between representatives of communities holding radically different basic political allegiances. Since in my conception the zones of Kashmir under de facto Indian sovereignty and de facto Pakistani sovereignty should be treated as separate entities for the purposes of Dimension II, I call this twin-track the Delhi-Srinagar and Islamabad-Muzaffarabad axes.

On the Pakistani side of the line of control in Kashmir, Dimension II should be relatively easy to implement. Two basic things need to be done here. First, an end to the systematic harassment and intimidation by Pakistani authorities and agencies of groups active in Pakistani-controlled Kashmir who espouse pro-independence politics (such as the JKLF and Jammu and Kashmir People's National Party or JKPNP), and the levelling of the playing field in competitive elections between these groups and those holding pro-Pakistan views, including the local units of all-Pakistan parties. For example, at present, the pro-independence formations, who have significant public support, are not permitted to contest elections to Azad Kashmir institutions unless they first pledge an oath of allegiance to Pakistan and to the maximalist Pakistani claim on Kashmir. Since the pro-independence forces are usually reluctant to do this – it compromises the basis of their political identity – they end up being excluded, along with their mass constituency, from participation in the arena of legal, institutionalised politics in Azad Kashmir, which is consequently monopolised by Pakistani and local pro-Pakistan groups. This exclusion means that one of the two basic strands of political opinion present in Pakistan-controlled Kashmir has virtually no recognition or representation in its institutional political life. This needs to be rectified if politics there is to be normalised.

Second, the autonomous status of Azad Kashmir and its institutions needs to be made genuine and fully functional, protected from constant interference and manipulation from within and without by Pakistani agencies and authorities.

The implementation of the Delhi-Srinagar track of Dimension II would present a very formidable challenge. This is primarily due to two factors: First, the very great internal social and political diversity of Indian-controlled Kashmir, in particular the existence of population groups holding three radically different basic political allegiances; and second, the immense difficulties for normalisation resulting from a decade of guerrilla warfare and counter-insurgency on its territory. I will restrict myself here to outlining the most fundamental and important aspects of that challenge and how they might be addressed most efficaciously.

The Indian government appears to be interested currently in implementing some limited, reciprocal 'confidence-building measures' *vis-a-vis* Pakistan. I would suggest, however, that it is even more urgent for the Indian government to devise and implement measures that might enable it to regain at least a modicum of the confidence of the inhabitants of Indian-controlled Kashmir, especially the citizens of those areas who have suffered the most from the violent conflict of the past decade and the repression of the vast Indian state-security apparatus based there. This requires two things: first, a fundamental revision and reorientation of the basic principles of India's long-term pacification strategy in Kashmir, second, the implementation in the short to medium term of a slew of confidence-building measures to gradually normalise the disturbed situation on the ground.

The implementation of both these points has in turn a prior prerequisite – the coming into being of something resembling a more or less stable ceasefire in the disturbed areas of Kashmir. That among other reasons is why some progress on Dimension I is so very important to the prospects of this, the most difficult track of Dimension II. For all its police and military resources invested in Kashmir, the Indian government has found it impossible to fully overcome the guerrilla resistance – which is almost entirely trained, armed and otherwise supported by Pakistani agencies and/or from Pakistani-controlled territory – and will find it impossible to fully 'pacify' Kashmir unless a new, overarching co-operative framework on Kashmir between India and Pakistan is put in place. Even then, a cessation of fighting may not prove easy to achieve given the doubtful degree of control of any Pakistani agency over some of the wilder guerrilla groups that have become active in Kashmir over the last few years, not to forget the likely opposition of hardline elements within the Pakistani military, intelligence and state-security apparata to a different, co-operation-based approach to the Kashmir problem.

The fundamental revision and reorientation in india's longer-term Kashmir strategy which is called for is this. To date, Indian governments have pursued a policy of limiting participation in the institutional political life of Indian-controlled Kashmir to only those political elements which are committed to its own goal of retaining Kashmir within the Indian union on terms dictated unilaterally by New Delhi. What has resulted from this policy is a series of lame-duck local governments run by India's client politicians who have, at best, a very limited base of popular support. India will never be able to normalise Kashmir or stabilise and legitimise its supposedly 'elected' surrogate governments there while Indian policy effectively excludes from any recognition and participation in Kashmir's public life representatives of two of the three basic strands of political opinion present in Indian-controlled Kashmir. This applies especially to the pro-independence elements whose ideology enjoys massive popular resonance in the most disturbed areas of Indian-controlled Kashmir.

India has been prepared to accommodate some of these elements in the political processes it has unilaterally sponsored in Kashmir, but only on condition that the independentists renounce their political beliefs and platform and accept that the Kashmir problem is purely an internal affair of the Indian state. This amounts to demanding abject, virtually unconditional capitulation. It is not surprising that pro-independence politicians and groups have

not been able to accept these terms, and have consequently been relegated to the rather unfruitful role of ceaselessly repeating their own variant of maximalist, all-or-nothing rhetoric while languishing on the margins of Kashmir's politics. However, I believe that most of them would be willing and able to participate in developing a Delhi-Srinagar *modus vivendi* which is but one dimension of a broader approach to Kashmir, an approach which acknowledges the multiple, interlocking domestic and international aspects of the problem and has Pakistan's seal of approval.

Sinn Fein's political leadership, represented above all by former top IRA commanders Gerry Adams and Martin McGuinness, have not abandoned their ultimate political commitment to an united Ireland. However, realistically recognising the existence of a whole slew of formidable internal and international constraints to the achievement of that objective, and the limitations of a strategy that emphasises unending armed struggle and is top heavy on rhetoric, they have chosen to be part of and work through a peace process which precludes any possibility of a full-fledged reunification of Ireland for at least another 20 years (and perhaps not even then). But they could never have been expected to participate in that process if an entry ticket had been conditional on their renouncing their core political beliefs and the ultimate goal of their struggle. The biggest lesson for Dimension II's Delhi-Srinagar track of Strand I of the northern Ireland peace process – which focuses on creating power-sharing institutions in Ulster based on parity representation of the nationalist and unionist communities and participation in running of those institutions by all major political parties on both sides of the communal divide – is that talks to reconstitute the governmental structures of Indian-controlled Kashmir must be as consensually oriented and inclusive as possible. This means that representatives of all three strands of political opinion in Indian-controlled Kashmir must be involved in that process. The political groups representing the smallest of the three segments, the pro-Pakistan stream, might in a curious way be the least troublesome since they are in the habit of falling in line with whatever Pakistan wants them to do and are also conscious of their limited popular base within Indian-controlled Kashmir. Indeed, there is a powerful faction even within the most pro-Pakistan group in India-controlled Kashmir – the Jama'at-I-Islami and its affiliated armed organisation, the Hizb-ul-Mujahedin – which genuinely wants an end to the present stalemate and would welcome a new approach to the Kashmir problem.

That process would logically lead eventually to a reinstitutionalisation of a multi-tiered political structure autonomous of New Delhi's authority in Indian-controlled Kashmir. But this will prove possible to achieve and viable to operate only if three core conditions are met: (1) Representatives of the independence option are on board; (2) The new arrangements win the assent of the second largest segment of popular opinion, the pro-India political elements and the social groups they represent; and (3) If the significant differences in social composition and political aspiration between Indian-controlled Kashmir's two major regions – Jammu, which has a pro-India majority, and the largely pro-independence Valley – are fully factored into the settlement.

Such a longer-term rapprochement on substantive issues will, however, only be possible if facilitating conditions are created in the short to medium-term on the ground in the violence-ridden areas, through the implementation of measures promoting gradual normalisation of the day-to-day life of a traumatised society. In this, the Indian government would have to bear a large share of the initiative. Its responsibilities, once again similar to confidence-building measures currently under implementation in northern Ireland, can be grouped under three interrelated categories: human rights, policing arrangements, and political prisoners.

Human rights: Following a more or less stable ceasefire, the Indian security presence in Kashmir would need to become as unoffensive and unintrusive towards the civilian population as possible. This means that 'crackdowns' (cordon-and-search operations) and checkpoints should be kept to a bare minimum, and progressively be done away with altogether. The emergency powers of Indian security forces operating in Kashmir should also be scaled down and gradually eliminated. Continuing violations of human rights - ranging from minor infractions like verbal abuse and beatings to acts such as rape, torture, summary executions and custodial killings – must be strictly controlled and the perpetrators given speedy, exemplary and well-publicised punishment. A special human rights commission for Indian-controlled Kashmir, with representation from Indian, local Kashmiri and international human rights activist groups, should be set up to monitor the behaviour of the security forces and investigate unresolved past incidents of abuse such as the fate of 'disappeared' persons. A frank acknowledgement by the government of India that large-scale atrocities against civilians have been committed in Kashmir and that the government regrets this happened would also help soothe deep psychological wounds.

Policing arrangements: Such an improvement in the human rights environment can be enabled and sustained only if existing policing arrangements in Indian-controlled Kashmir are radically restructured. To begin with, all units of the regular Indian army – many of which are actively engaged in counter-insurgency operations – should be redeployed away from population centres (including rural areas) and reoriented towards their traditional duties of border security. Of the hundreds of thousands of Indian security personnel deployed in the troubled areas of Kashmir in the 1990s, the vast majority have been non-Muslims and non-Kashmiris from outside the province. As a result, the Indian security presence in these areas bears an uncomfortably strong resemblance to a foreign occupation army (a somewhat similar stumbling block to a permanent peace exists in northern Ireland, where the police force, the Royal Ulster Constabulary or RUC, is presently 90 per cent Protestant and viewed as biased and hostile by most Catholics). Along with the redeployment of army troops, these other 'outside' personnel – who make up the vast bulk of counter-insurgency formations such as the Central Reserve Police Force (CRPF) and the Border Security Force (BSF) – should be progressively removed from Kashmir. In parallel, responsibility for normal law-and-order maintenance should gradually revert to a rejuvenated Jammu and Kashmir police composed of local officers.

Political prisoners: As in northern Ireland, the issue of political prisoners is an especially emotive and important one in Kashmir. There are currently some thousands (estimates vary widely) of Kashmiris being held in Indian jails and detention centres for political offenses, many without trial or indeed any due process of law under emergency regulations that should be gradually removed altogether from the statute books. The Indian government should adopt the most generous policy regarding these detainees. Those in prison solely for holding or peacefully expressing pro-independence or pro-Pakistan views should be released immediately and unconditionally, and any charges against them dropped. Those charged for acts of violence not involving fatal attacks against civilians should also have their cases reviewed expeditiously and be favourably considered for the earliest possible release. Those accused of egregious acts of violence against civilians should be brought to fair trial under due processes of law at the earliest possible date. Lenient and accelerated programmes of release should be rapidly implemented for prisoners belonging to those groups which ceased armed activity and/or are observing an unequivocal ceasefire.

Conversely – following a similar reward-penalty scheme currently being implemented by the British and Irish governments and the northern Ireland security authorities – prisoners belonging or affiliated to groups which have failed to put down the gun should not be released.

Dimension III: The Srinagar-Muzaffarabad Axis

The great social diversity of Kashmir, and the sharply conflicting basic political allegiances of different sectors of its population, means that a single independent state of Kashmir encompassing pre-1947 borders would most probably be unviable, even if India and Pakistan were to allow it (which they have no intenion of doing). However, that does not mean that what was the pre-1947 princely state should be condemned in perpetuity to the opposite extreme: which is being divided by an iron curtain, the single most heavily militarised border in the world. Indeed, along with the progressive normalisation of the overall framework of India-Pakistan relations and the gradual normalisation of life and politics on both sides of the Kashmir border (Dimensions I and II), possibilities should open up for not just demilitarising those 800 meandering kilometres of trenches, bunkers and barbed wire, but making it much more porous than it has hitherto been – a linen curtain rather than a barrier of iron and steel. This would be the Srinagar-Muzaffarabad axis – Dimension III of the alternative approach to building peace in Kashmir and the subcontinent.

Dimension III roughly corresponds to Strand II of the northern Ireland peace process, which is considered to be the most contentious element of that peace process's three-track approach to peace-building. Under Strand II of the Good Friday Agreement, a north-south ministerial council is to be established as the institutional expression of cross-border co-operation between Ulster and the Republic of Ireland. This north-south ministerial council – consisting of executive members or ministers from northern Ireland's autonomous, power-sharing government and their counterparts from the Irish Republic's sovereign government – is charged with gradually developing co-operation and eventually common policy on a range of issues of mutual concern. The issues listed include various aspects of agriculture, education, transport, environment, inland waterways, inland fisheries, tourism, social welfare, public health, urban and rural development, matters of a cultural nature, and implementation of European Union (EU) programmes.

Nationalists regard the development of this cross-border institution as absolutely crucial to longer-term prospects of peace in Ireland, since it represents the agreement's major concession to their long-term agenda of unification with the Irish Republic. Unionists, on the other hand, are deeply paranoid about institutions of north-south co-operation, since they conjure up their worst fears of one day being submerged as a minority in an united Ireland. The Good Friday Agreement tries to balance both sets of concerns. Strand II thus makes it mandatory for ministers from the northern Ireland autonomous, power-sharing government – unionist members as well as nationalists – to participate in the functioning and development of the north-south ministerial council. At the same time, the agreement is ambiguous on how much 'teeth' the cross-border institutions will really have, in what might well be a deliberate attempt to allay the fears of unionists, who have in fact already adopted a strategy of stonewalling on the issue as much as possible.

The establishment of a cross-border Jammu and Kashmir council for co-operation with representatives from inclusive, elected and autonomous governments from both sides of the line of control, would serve several crucial purposes. First, it would serve as a mark of respect towards the historical integrity of the state (an issue of importance especially to independents and exemplify the replacement of the iron curtain by a linen curtain, even while leaving the de facto sovereign jurisdictions on either side of the line of control intact.

Dimension III would also serve a second and even more important purpose. A basic aim of Pakistan's Kashmir policy has always been to secure some sort of say, however indirect – a foothold, if you will – in the affairs of the Indian-controlled two-thirds of Kashmir, especially the Valley. Regional institutions of cross-border co-operation, linking Srinagar to Muzaffarabad, would do precisely that – give the part of Kashmir which is under de facto Pakistani sovereignty an institutionalised role, even if limited, in the part of Kashmir which is under de facto Indian sovereignty. However, since there is no such thing as a free lunch in politics, any such arrangement would necessarily involve a quid pro quo and be strictly reciprocal in nature, giving Indian Kashmir an indirect, limited say in the affairs of the other Kashmir across the border. To begin with, the functions of the Jammu and Kashmir council for co-operation should probably be modest, providing primarily a forum for the exchange of information and consultation between popular representatives of the two Kashmirs on a limited range of issue including intra-regional trade and commerce, cross-border transportation, protection and preservation of the local environment, intra-regional waterways, cultural matters, agriculture, and tourism. With time, the potential exists for institutions of cross-border co-operation to be gradually developed in more robust directions.

Conclusion

In 1931, the poet W B Yeats wrote a famous lament to what seemed to be the inescapable fate, through all the twists and turns of history, of his beloved Ireland. It runs like this:

Out of Ireland have we come
Great hatred, little room
Maimed us at the start
I carry from my mother's womb
A fanatic heart.

Ireland has obviously made a lot of progress since then, though not before costly, avoidable detours involving decades of violent confrontation, sectarian conflict, and political stalemate. It is within the realm of the possible that similar progress can in the foreseeable future be achieved in Kashmir. In the best case scenario – which of course is itself a highly optimistic assumption – the kind of multi-dimensional, interlocking approach I have outlined here has the potential to unfreeze a 50 year stalemate.

This approach takes full account of the unavoidable exigencies of realpolitik – the legitimate concern of the Pakistani and Indian states and their elites with basic issues of state sovereignty, national interests and security. The present de facto sovereign jurisdictions in Kashmir cannot and will not change in the foreseeable future. The borders drawn in blood through Jammu and Kashmir in 1947-48 are here to stay – albeit, hopefully in a minimal form in the future – just as those even longer borders drawn in blood between India and Pakistan at the same time are a permanent reality. However, it is still in the interests of both India and Pakistan to find a viable, durable way out of a conflict that saps so many resources, causes so much tension, and which neither country can ever hope to unequivocally 'win'.

At the same time, this approach offers to the frustrated, fractured and utterly demoralised independence movement in Kashmir the prospect of a genuine voice in the making of Kashmir's future and a major role in the operation of its reconstituted institutions of governance. That, whatever its limitations, would not be something insignificant. The alternative, in any case, is even less palatable for all sides involved – a dead end status quo built on obsolete assumptions and ridiculous posturing which normalises conflict rather than peace.

Convergence of Incomes across Indian States

A Divergent View

M Govinda Rao
R T Shand
K P Kalirajan

This article examines the trends in interstate inequalities in the levels of income in India over the last three and a half decades. Contrary to the predictions of neoclassical growth theory that interstate differences in income levels tend to reduce as they approach the steady state equilibrium, our analysis shows widening interstate disparities. To understand the causes of this divergence, the article examines the determinants of interstate differences in growth rates and analyses the role of interstate transfers – explicit and invisible – in determining the geographical spread of investment and incomes. It finds that divergence in income levels has been mainly caused by the allocation of private investments which in turn, has been influenced by the inequitable spread of infrastructure. The inequitable nature of public expenditure spread across states is attributed to the inability of the intergovernmental transfer mechanism to adequately offset the fiscal disabilities of the poorer states as well as regressive nature of the invisible interstate transfers.

I
Introduction

A MAJOR objective of planned developmental strategy in India since independence has been to accelerate economic growth and achieve a balanced regional spread. During the colonial period, the structure of incentives, institutions and the spread of infrastructure were evolved predominantly to serve colonial interests [Bharadwaj 1982], and the planned allocation of resources in independent India was expected to rectify inter-regional disparities and imbalances in development caused by those distortions. After 50 years of planned developmental experience, it is opportune to analyse the extent to which this objective has been achieved.

There are important motivations for undertaking a study of the trends in interstate inequalities in income levels. First, it has been shown that most of the poor are concentrated in poorer and slow growing regions and therefore, analysis of interstate disparities is relevant to evolving an effective strategy to combat poverty. This is particularly true in an economy where the mobility of labour is less than perfect due to various institutional factors. Second, inter-regional disparities have ramifications for the stability of the federal polity. More importantly, economic liberalisation enhances interstate competition and potential gains from competitive federalism depend upon the competitive strength of competing jurisdictions.[1]

The plan of the article is as follows. Section II briefly reviews relevant neoclassical growth theory, examines the issue of convergence in per capita state domestic product (SDP) and tests for the convergence of incomes among the 14 major states in India for the period since the mid-1960s. In Section III, important factors affecting economic growth, particularly the role of private investment, are analysed. The interstate distribution of private investment and its association with public spending are examined in Section IV. Section V examines the role of explicit and invisible transfers in determining interstate distribution of government expenditures and private investments in India. The major findings of the study are summarised in the last section.

II
Incomes across Indian States

(a) Growth and Convergence

Much of the recent discussion on intercountry or inter-regional differences in income levels is done within the framework of neoclassical growth models of Ramsey (1928), Solow (1956), Swan (1956) Cass (1965), Koopmans (1965). These models demonstrate that in closed economies with no differences in technology and preferences, the growth rate in per capita incomes tends to be inversely related to the initial levels of per capita incomes. Barro and Sala-i-Martin derive a log-linear approximation of the steady state model to arrive at the average growth rate with a Cobb-Douglas technology as:

$$1/T.\text{Log}\,[y_{it}/y_{i,t-T}] = x_i^* + \text{Log}\,[y_i^*/y_{i,t-T}]\,[1 - e^{-\beta T}]\,/\,T + U_{i,t} \qquad ...(1)$$

where
i indexes the economy,
t indexes time,
y_{it} denotes per capita income,
x_i^* is the steady state growth rate of per capita income,
y_i^* is the steady state output per effective worker.
$y_{i,t}$ is the output per effective worker (number of workers adjusted to take account of the effect of technological progress),
T is the length of time period,
β represents the rate of convergence, and
$U_{i,t}$ is the error term.

The higher the value of β, the greater the responsiveness of the growth rate to the difference between y_i^* and y. The theory implies that pure differences in the level of technology do not affect β. Thus β can be similar for economies that are very different in other respects.

The model implies a form of conditional convergence and the speed of this convergence is measured by β. Thus, for given steady state values of x_i^* and y_i^*, per capita income growth rate would be higher, the lower the starting level of per capita income ($y_{i,t-T}$). Convergence is conditional because $y_{i,t-T}$ is related y_i^*, which may not be uniform across regions due to differences in the savings rate or technology. However, most empirical studies assume away differences in savings and technology and infer absolute convergence from the estimates of β [Barro and Sala-i-Martin 1991, 1991a]. The principal force driving convergence in the neoclassical growth model is diminishing returns to reproducible capital. Thus, economies with lower initial values of capital-labour ratios will have high marginal products of capital and therefore, tend to grow at higher rates [Evans and Karras 1996].

There is a related but alternative measure of convergence, which essentially

Figure 1: Relationship between Level of Incomes and Growth Rate across Indian States – 1965-95

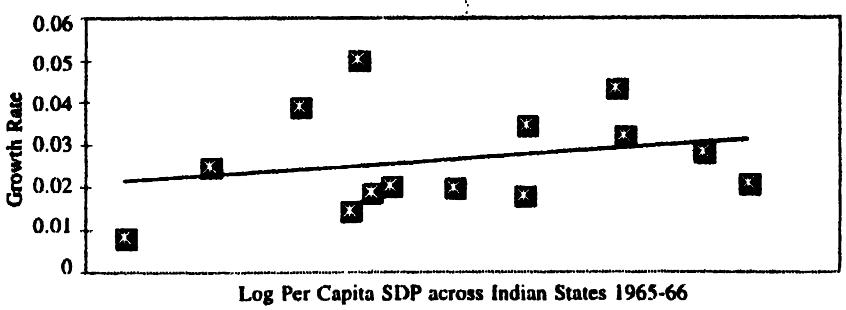
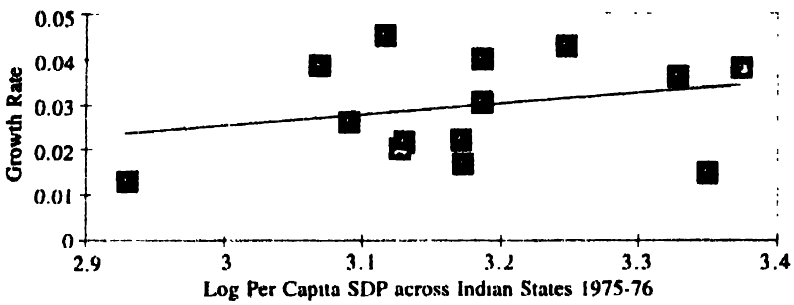


Figure 2: Relationship between Level of Incomes and Growth of Incomes across Indian States – 1975-95



of nét domestic product in the country and are therefore representative. The mountainous states of the north and north-eastern part of India which are considered 'special category' by the Planning Commission and the small state of Goa have been excluded from the analysis because of the significant differences in the structure of their economies from the rest of the states and therefore their steady state values of x_i^* and y_i^* are likely to be different. In most of these states, the only important source of income is government activity.

There are two different sources of SDP estimates. The first is the comparable estimates made by the Central Statistical Organisation (CSO). However, this series is available only from to 1967-68 to 1985-86 and that too only in current prices [Choudhury 1993]. The alternative is to use the estimates of SDP made by the statistical bureaus of each of the states which are compiled and published by the CSO. These data are not strictly comparable

measures cross-sectional dispersion of per capita incomes across economies measured as the standard deviation of the logarithm of per capita incomes, given by σ. In general, positive values of β should reduce σ as well, but this need not necessarily happen if exogenous shocks alter the distribution of the error term $\mu_{i,t}$. Thus while β convergence measures the speed at which the poorer regions catch up with richer ones, σ measures inter-regional inequality in per capita incomes at a given point of time.

(b) Convergence of Incomes across Indian States

We estimate the β convergence coefficient from the following regression model:

$$1/T.\text{Log } [y_{it}/y_{i,t-T}] = a - [\text{Log } (y_{i,t-T}) (1 - e^{-\beta T}) (1/T) + Xi + U_i \quad ...(2)$$

where y_{it} refers to per capita SDP in the ith state at constant (1981) prices, $y_{i,t-T}$ denotes per capita SDP in the ith state in the beginning of the interval, Xi is the vector of other variables to control for variations in the steady state values of x_i^* and y_i^*, and T is the length of observation.

To measure dispersion in per capita SDP across states, the standard deviation of the log of per capita SDP in the states, σ, has been estimated for each of the years from 1960-61 to 1994-95.

Our analysis of convergence takes into account the 14 major states in the Indian union. These 14 major states account for 93 per cent of population and 91.5 per cent

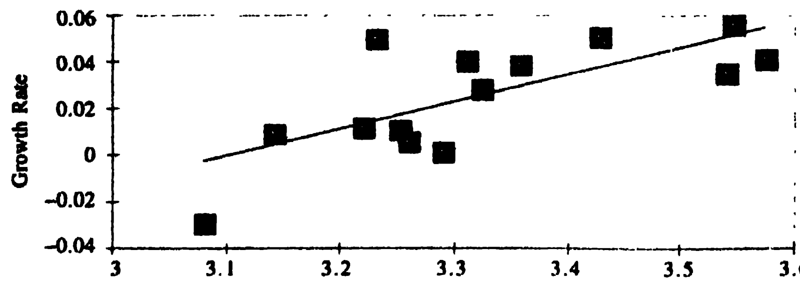
Table 1: Regression Equations on Convergence [Dependent Variable: Ln (Y_{it}/ $Y_{i,t-T}$)]

Year	Constant	Initial Income Level Ln ($y_{i,t-T}$)	Share of Primary Sector in Total SDP Ln ($Ag_{i,t-T}$)	Sectoral Share Index (S_{it})	$\bar{R}^2$	F
1965-94	-0 1414	0.0230*			0.4410	11.2572*
(i)	(-2 8954)	(3.3552)				
(ii)	-0.1940	0.0354*	-0.07423*		0.6115	11.2292*
	(-4.2344)	(4.6782)	(-2.5027)			
(iii)	-0.2181	0.0353*		0.0162**	0.6059	10.9919*
	(-4.2295)	(4.6242)		(2.4533)		
1970-94	-0.1598	0.0247*			0.6974	30.9539*
(i)	(-4.9373)	(5 5636)				
(ii)	-0.1417	0.0214*	-0.0089**		0.7683	22.5479*
	(-4.7985)	(5.1308)	(2.1613)			
(iii)	-0.1471	0.0213*		0.0345**	0.7698	22.7355*
	(-5.1033)	(5.0840)		(2.1855)		
1975-94	-0.1493	0.0237*			0.7216	34.6898*
(i)	(-5.0646)	(5.8898)				
(ii)	-0.1300	0.0202*	-0.0091		0.7642	22.0669*
	(-4.4499)	(4.8099)	(-1.7805)			
(iii)	-0.1356	0.0198*		0.0450@	0.7737	23.2242*
	(-4.9319)	(4.7362)		(1.9404)		
1980-94	-0.1238	0.0207**			0.2883	6.2658**
(i)	(-2.0257)	(2.5032)				
(ii)	-0.0944	0.0147	-0.1.8235		0.4038	5.4027
	(-1.6209)	(1.7832)	(-1.8233)			
(iii)	-0.1213	0.0136		0.1674@	0.4139	5.5899@
	(-2.1861)	(1.6109)		(1.8894)		
1985-94	-0.1176	0.0202			0.0878	2.2516
(i)	(-1.1660)	(1.5005)				
(ii)	-0.0677	0.0096	-0.0326**		0.3155	3.9957**
	(-0 7502)	(0.7619)	(-2.2340)			
(iii)	-0.1490	0.0162		0.2751	0.0817	1.6402
	(-1.4128)	(1.1507)		(1.0121)		
1990-94	-0.2942	0.0425@			0.1727	3.7131@
(i)	(-1.7408)	(1.9269)				
(ii)	-0.2217	0 0248	-0.0642*		0.4470	6.2542**
	(1.5744)	(1.2875)	(-2.6369)			
(iii)	-0.3170	0.0428@		0.2866	0.1024	1.7419
	(-1.5946)	(1.8603)		(0.2473)		

(The figures in parenthesis denote t-values of the regression coefficients).

Notes: * Significant at 1 per cent level; ** Significant at 5 per cent level.
@ Significant at 10 per cent level.

FIGURE 3: RELATIONSHIP BETWEEN LEVEL OF INCOMES AND GROWTH OF INCOMES ACROSS INDIAN STATES – 1990-94



across states though the states follow a broadly uniform approach and methodology. There are two arguments for using these figures. First, they are the only estimates available in a long time series. Second, a study by Das and Barua (1996) which estimated inequalities using both the series obtained almost identical results and therefore concluded, "...regional accounting variations are only minor from the viewpoint of inequality measure" (p 372).

It should also be noted that the concept of SDP only indicates the income originating in different states and does not represent total income accruing to them. Unfortunately, there are no estimates of net factor income accruing to a state from outside its boundaries, and therefore it is not possible to take these into account.

The estimated regressions using equation 2 (Table 1) reveal a number of interesting features of the interstate growth process in India since 1965. The most important finding is that per capita SDP in the states in India have tended to diverge rather than converge. These findings are contrary to the predictions of the neoclassical growth models and the empirical findings for cross sections of countries as well as different states within the US.[2] The basic equations regressing Log $(y_{it}/y_{i,t-T})$ with Log $(y_{i,t-T})$ show significantly positive coefficients. Thus, growth of per capita SDP in the states in India is positively related to their initial levels. In other words, states with initially high per capita SDP tended to grow faster than those with lower per capita SDP. The equation was estimated for various sub-periods beginning 1965 and ending in 1994-95. The strong positive relationship between growth rate and initial level of incomes holds true until the period 1980-95. In 1985-94, the relationship is not significant, but within it is significant in 1990-94 after economic liberalisation measures were introduced. The scatter diagram plotting growth rates of per capita SDP over the period 1965-94 against per capita SDP in 1965 clearly brings out the strong positive association between the two variables (Figures 1 to 3). The growth of incomes shows a positive slope from the initial level of incomes during both 1965-94 and 1975-94. After the introduction of economic liberalisation, the greater market initiative seems to have strengthened this positive relationship as may be seen from the steep increase in the positive slope during 1990-94 (Figure 3).

These estimates, however tend to be unstable because the effects of exogenous shocks are not controlled.[3] They may even have an omitted variable bias. Therefore, empirical studies on convergence include two additional variables, (i) share of primary sector income $(Ag_{i,t-T})$ to control exogenous shocks caused by fluctuations in agricultural output, and (ii) a standardised measure of sectoral composition (S_{it}) to minimise interstate differences in the steady state values x_i^* and y_i^*. The sectoral variable included in the equation is measured as:

$$S_{it} = \sum_{j=1}^{3} W_{ij,t-T} \cdot \log(y_{jt}/y_{j\,t-T}) \qquad \ldots(3)$$

where, $W_{ij,t-T}$ is the weight of sector j in state i's SDP at time t-T, and y_{jt} is the all-state average SDP in sector j in time t, expressed as a ratio of national population in time t.

Our analysis shows that there is a high degree of correlation (> 0.9) between the two variables in all the time periods considered here. Therefore, in the regressions, to ensure accuracy of the regression coefficients, we have separately included the two variables together with the initial per capita SDP levels in equations 2 and 3 respectively, for all of the time periods. However, the inclusion of these two variables does not alter the basic finding that per capita SDP across states in India has shown a positive trend over the years from 1965. The regression coefficient of $y_{i,t-T}$ is positive in each of the sub-periods even when these variables are included in the equation, though in the two sub-periods, 1980-94 and 1985-94, it is not significant. The estimates of β derived from these regression equations (Table 2) are consistently negative and significant in the first three periods showing a divergent trend in incomes over the years. The coefficient though has a negative sign and is not significant for the periods 1980-95 and 1985-95, but is significant again for 1990-94 after economic liberalisation was introduced. This underlines the importance of augmenting the quality of infrastructure in the poorer states to enable them to reap the gains from liberalisation.

This finding, which is contrary to the prediction of neoclassical growth theory casts doubts on the validity of the critical assumption of diminishing returns to reproducible capital. The positive association of growth rates with the initial level of incomes probably shows that, in an economy with large unutilised resources and a poor state of social and physical infrastructure, there will be increasing returns to reproducible capital in the initial stage of development followed by diminishing returns, resulting in an inverted U relationship between economic growth and inter-regional inequality as traditionally assumed [Kuznets 1955; Myrdal 1957 and Williamson 1969].

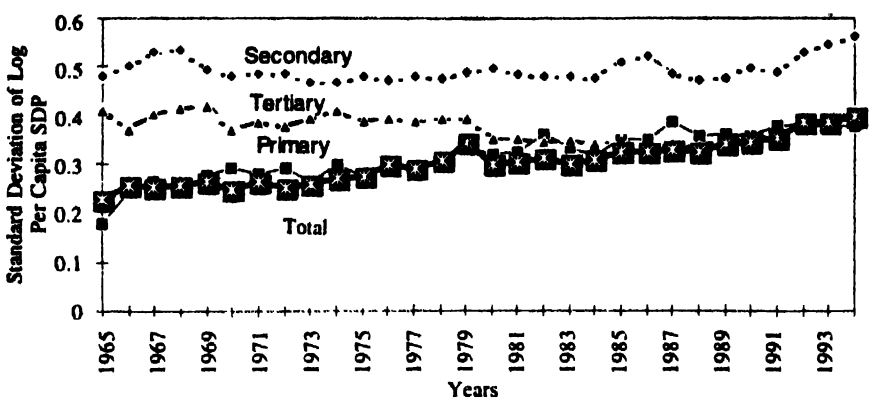
These findings contradict those of a recent study by Cashin and Sahay (1996) which concludes that there has been convergence in real per capita SDP across

TABLE 2: β CONVERGENCE COEFFICIENTS

	Basic Equation	Equation with Primary Sector Share in SDP Included	Equation with Sectoral Index Included
1965-94	-0.02327*	-0.03615*	-0.03594*
1970-94	-0.02501*	-0.02163*	-0.02153*
1975-94	-0.02399*	-0.02041*	-0.02000*
1980-94	-0.02092**	-0.01481	-0.01369
1985-94	-0.02041	-0.00965	-0.01633
1990-94	-0.04343@	-0.02511	-0.04374@

Notes: The estimates are based on the regression estimates presented in Table 1
* Significant at 1 per cent level.
** Significant at 5 per cent level.
@ Significant at 10 per cent level.

Figure 4: Interstate Dispersion in Per Capita SDP



states in India during the period 1961-91. A major reason for the differing results is that Cashin and Sahay include the special category hill states of Assam, Himachal Pradesh, Jammu and Kashmir, Manipur and Tripura as well as the union territory of Delhi. There are serious problems of comparability of income figures in these states and in some of them, much of the economic activity is determined by the government sector and the private sector hardly plays any significant role. It would be inappropriate to assume that production functions and therefore steady state values of incomes in these states would be identical to those of the major states in India. Therefore, for the sake of comparability we have taken only the 14 major states in the sample.

Secondly, the convergence coefficients estimated by Cashin and Sahay are not significant in the basic equations or in the equations with primary sector share. Even when an additional variable, the share of the manufacturing sector, is included the coefficient is not significant in two of the three sub-periods for which the equation was estimated. The authors then estimate a restricted combined regression with both agricultural sector and manufacturing sector shares included as independent variables in addition to the initial income levels, constraining the value of β to be identical across equations for various sub-periods.

The trend in the dispersion of per capita SDP across states over the years from 1965-66 to 1994-95 as measured by the standard deviation of per capita SDP (σ) in this article is quite consistent with the finding on divergence in the per capita SDP during this period noted earlier. Figure 4 presents the trends in σ estimated for per capita SDP in the states and also for primary, secondary and tertiary sectors. It is seen that the dispersion has shown a steady increase over the years from 0.2240 in 1965-66 to 0.3972 in 1994-95 (Table 3). The analysis shows that dispersion in the incomes of the primary sector has been the major source of dispersion in per capita SDP, particularly until 1990-91. The σ values for the primary sector increased from 0.177 in 1965-66 to 0.377 in 1991-92 and fluctuated around that value thereafter. In contrast, the σ value for the secondary sector fluctuated around 0.48 throughout the period until 1990, but increased sharply thereafter in response to the better performances of advanced states after economic liberalisation was introduced. With much of the tertiary sector being influenced by income from government services, the σ value for the sector does not show any consistent trend. This last finding is consistent with those of other studies analysing interstate disparities across states in India over varying time periods [Choudhury 1993, Das and Barua 1996].

III
Determinants of Growth

The examination of the reasons for divergence or lack of convergence calls for a more systematic analysis of the factors determining economic growth of states in the Indian federal economy. In this section, we explore the important determinants of growth of per capita SDP across Indian states.

Our analysis of convergence shows tha the initial income level which, to a larg extent reflects the initial capital stock i an important factor determining the growt rates. We can formulate the hypothesis o the relationship between the level of in comes and their growth rates dependin on whether the return to capital is assume to be diminishing, constant or increasing In a diminishing return to capital scenaric as assumed by neoclassical growth theo rists, the relationship will be negative. I the constant returns to capital assumed b Lucas (1988) and Rebello (1990), growt rate of per capita SDP is independent o the starting level. If increasing returns ar assumed, the relationship will be positive

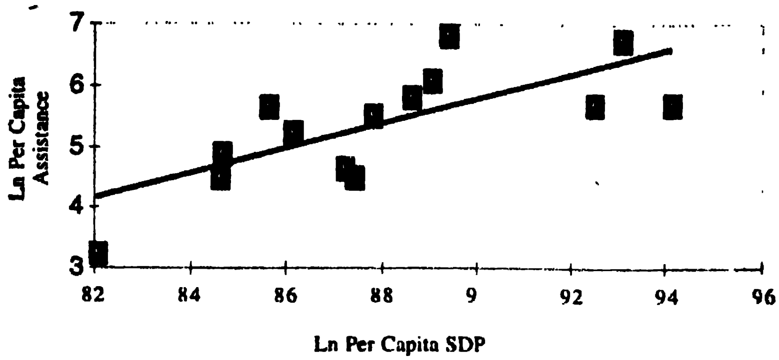
We have estimated regressions to ex plain differences in the growth of pe capita SDP across states at different tim periods starting from 1965-94. Averag annual growth rates for six different tim periods (1965-94, 1970-94, 1975-94 1980-94, 1985-94, 1990-94), estimate by regressing the logarithm of per capit SDP on the time variable for each of th states, are regressed on plausible variable affecting the growth rates. The indepen dent variables included in the analysis ar the initial level of per capita SDP, huma capital stock, share of state governmen expenditure in SDP, private industria investment in the state and adoption o technological change in the agricultura sector. The literature emphasises the rol of human capital in determining economi growth [Romer 1990]. We have taken th literacy rate in the initial year to represen human capital stock and the variable fo relevant years is estimated by extrapolat ing the inter-census data.

The impact of government expenditur on the growth rate is estimated by takin the ratio of total state government expen diture to SDP (G/Y) averaged for the perio as the independent variable. However consistent and comparable data on govern ment expenditures for the states are avail able only from 1974-75, so the variabl has been used in the regressions fo

Table 3: Dispersion in Per Capita SDP across Indian States in Selected Years

Years	Standard Deviation of Per Capita SDP			
	Primary Sector	Secondary Sector	Tertiary Sector	Total
1965-66	0.17708	0.48218	0.41033	0.22400
1970-71	0.29309	0.48051	0.36832	0.24706
1975-76	0.27568	0.47990	0.38855	0.27415
1980-81	0.32122	0.49551	0.35529	0.30016
1985-86	0.35092	0.51051	0.34819	0.32550
1990-91	0.35938	0.49645	0.35191	0.34526
1991-92	0.37630	0.48770	0.36048	0.35257
1992-93	0.38226	0.52861	0.37295	0.38486
1993-94	0.37651	0.54561	0.38837	0.38644
1994-95	0.37718	0.56161	0.40666	0.39723

Figure 5: Relationship between Per Capita SDP and Per Capita Assistance by All India Financial Institutions across States – 1994-95



1975-94, 1980-94, 1985-94 and 1990-94. It is difficult to predict the sign of the coefficient of this variable. While government consumption expenditure is expected to retard growth due to distortionary effects of taxation, the investment expenditure is expected to improve private sector productivity, and hence accelerate growth. Also in the context of states, a significant part of a state's expenditure is financed through intergovernmental transfers, so the effect of expenditure on the economic growth of the state is indirect and may not be reflected in the regression. Finally, a sizeable proportion of current expenditures of the states includes spending on human capital which could have a positive result.[4]

An important factor determining the growth rate in a state is the private sector investment in manufacturing. There are no reliable data on private sector investments by states. We have taken the share of loans given by the all India financial institutions (AIFI) to SDP in different states as a proxy for private investments.

Economic growth in many states during the 1970s was driven by agricultural growth mainly due to the impact of the 'green revolution', which is a combination of the use of new varieties of seeds, application of chemical fertilisers and expansion in irrigation facilities. The states which adopted the new technologies grew faster than those which did not or could not. To capture the effect of adoption of new technology in the agricultural sector, the consumption of fertilisers per hectare of sown area (FERT) was employed as the variable. In the post-1980 period, much of the growth has been in the manufacturing and service sectors.

The regression estimates of the determinants of economic growth across states in India for the six time periods (Table 4) reveal a number of interesting features. First, in all three equations up to the starting period of 1980, starting income level had a positive and significant impact on economic growth. Thus, until 1980, these results confirm the inference about divergence in economic growth in the previous section. After 1980, the coefficient is positive but not significant.

Second, among other variables, the variable proxying private investment was the most important variable from the mid-1970s. Thus, much of the differences in growth rates among the states is explained by the differences in private investment levels, particularly since 1980.

Third, the literacy rate representing human capital shows a negative and significant coefficient in the first two equations (1965-94 and 1970-94), and is not significant in the next two (1975-94 and 1980-94). There appears to be a transition in this relation as the coefficient shows a significant positive effect on the growth rates in the periods, 1985-94 and 1990-94. The negative coefficient of literacy is surprising though it must be noted that in the initial years the green revolution-led growth was concentrated in the northern states such as Punjab and Haryana where the literacy rate was relatively low. The positive and significant effect in the periods since 1985 is consistent with the role of human resource development emphasised in the literature.

The regression coefficient of other two variables included in the equation, G/Y and FERT do not show a consistent pattern. G/Y has a positive sign but is not significant in any of the years. Interestingly, the regression coefficient of FERT is positive and significant at 10 per cent level only in the period beginning 1975 when the impact of the green revolution was maximum. Thus neither differences in the level of state government expenditure nor technological advances in the agricultural sector seem to have played a consistent or significant role in explaining the differences in the growth of per capita SDP across major states in India. It is possible that the level of fertiliser use per hectare was not a good proxy for new technology.

IV
Reasons for Divergence

(a) Private Investment and Public Expenditure

Thus, contrary to the predictions of neoclassical growth literature, per capita incomes across Indian states have shown divergence over the years and interstate inequalities in per capita incomes have shown a steady increase. This casts doubt on the validity of the basic assumption of diminishing returns to capital in the steady state growth models. The pattern of distribution of investments across states would give us insights into whether the return to capital shows diminishing returns or follows the traditional inverted U-shaped function in the Indian context. In part, the distribution of investments across states depends on the availability of infrastructure. While information on the stock of public capital in different states is not available, per capita government expenditure may perhaps serve as the best proxy. If so, the distribution of government expenditure across states and its relation-

Table 4: Determinants of Economic Growth in Indian States
Dependent Variable: Average Annual Growth Rate of Per Capita SDP

Year	Constant	Ln Y_0	Ln Literacy	Ln G/Y	ln AIFI	Ln FERT	$\bar{R}^2$	F
1965-94	2.0213	0.00157*	-0.0269**	–	0.0821	–0.06567	0.6149	6.1884**
	(1.9712)	(3.5597)	–(2.2936)		(0.4469)	–(1.7706)		
1970-94	0.1266	0.0012*	–0.0160**	-	0.2403@	0.0050**	0.7963	13.7087*
	(0.3642)	(4.3765)	–(2.4685)		(1.8467)	(2.3300)		
1975-94	0.2641	0.0084*	–0.0092	–0.0161	0.3372*	0.0039@	0.8128	12.2893*
	(0.3457)	(4.3852)	–(1.6711)	(0.5832)	(3.0303)	(1.9210)		
1980–94	–1.7291	–0.0065@	0.0052	0.0621	1.0741*	0.00368	0.7068	7.2667
	–(0.9764)	(1.8544)	(0.4235)	(0.9975)	(4.3890)	(0.7952)		
1985–94	–4.4878	–0.0015	0.0590**	0.1074	0.4262**	0.0048	0.5046	3.6685
	–(1.2497)	(0.2333)	(2.3703)	(0.8750)	(2.7791)	(0.4765)		
1990-94	–7.4329	–0.0030	0.4262*	0.5640	0.4595**	0.0034	0.6540	7.1417
	–(2.6113)	(0.4183)	(2.7791)	(1.0612)	(2.2061)	(0.2199)		

Note: See Table 1.

FIGURE 6: RELATIONSHIP BETWEEN GOVERNMENT EXPENDITURE AND SDP ACROSS STATES – 1994-95

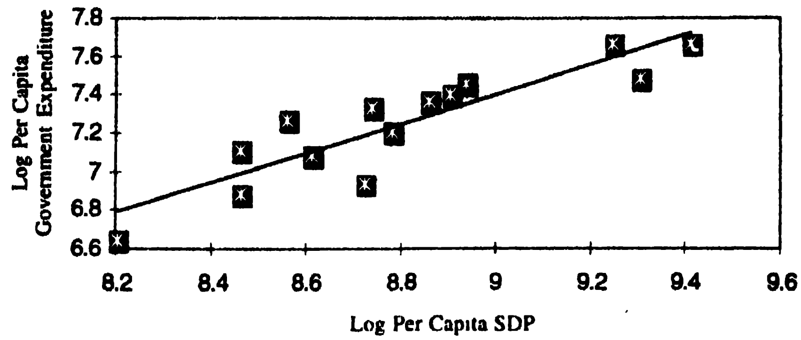
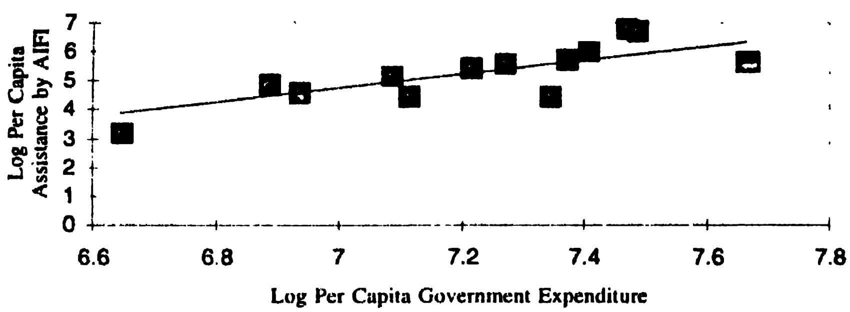


FIGURE 7: RELATIONSHIP BETWEEN LENDING BY ALL INDIA FINANCIAL INSTITUTIONS (AIFI) AND GOVERNMENT EXPENDITURE ACROSS STATES – 1994-95



ship with private investment can help us understand the reasons for divergence in incomes across Indian states.

Table 5 presents the parameter estimates of equation regressing per capita loans given by AIFIs on per capita SDP across states for selected years. The results indicate that the flow of financial assistance is significantly higher in states having higher per capita SDP. In fact, the cross-section elasticity of loans given with respect to per capita SDP is much higher than unity in all the years for which regressions were estimated and this indicates that the rate of increase in financial assistance is faster than that of per capita SDP. In other words, the results indicate that the volume of private investment increases with per capita SDP, and the rate of increase is more than proportionate. Further, it is also seen that the elasticity has shown a steady increase, particularly since 1985. Thus, in 1994-95, for every 1 per cent additional per capita SDP, states obtained more than 2 per cent higher AIFI assistance which is clearly brought out in Figure 5. The higher flow of financial assistance to more affluent states, and the more than proportionate distribution of the assistance to them clearly shows that the distribution of private investment in India has been disproportionately in favour of the better off states. This gives indirect support to the proposition that in the Indian context, there has been increasing returns to capital, and that this explains the phenomenon of divergence of per capita SDP across states noted earlier.

What has been the role of state government expenditures in determining the growth patterns across states? Analysis in Section III showed that the share of government expenditure in SDP is not a significant variable in explaining differences in economic growth across states. However, the pattern of public expenditures can indirectly influence economic growth by influencing private investments. Public expenditure policy determines the availability of social and physical infrastructure which is an important factor in the location decisions for private investment. We have therefore regressed per capita assistance given by AIFIs on per capita government expenditures incurred by different states. The results presented in Table 5 show a positive and significant relationship. Thus per capita private investment as proxied by loans given by financial institutions are significantly influenced by per capita government expenditures. The cross-section elasticity of per capita loans by financial institutions with respect to per capita expenditures is more than two in all the years for which estimates were made and it is as high as three in 1990-91. Thus, states with higher per capita public expenditures had larger private investments, every 1 per cent higher public expenditures resulting in higher loan assistance by AIFI of more than 2 per cent (Figure 7).

(b) REGIONAL POLICIES

Interestingly, in spite of centralised planning for four and a half decades and the emphasis placed on balanced regional development in every plan, the distribution of private investment is clearly in favour of richer states. This may be explained in terms of institutional factors as well as public policies relating to the distribution of resources and physical and social infrastructure facilities in different

TABLE 5: RELATIONSHIP BETWEEN LOANS BY ALL INDIA FINANCIAL INSTITUTIONS, PUBLIC EXPENDITURE AND STATE DOMESTIC PRODUCT ACROSS STATES

Dependent Variable/Year	Constant	Ln Per Capita Public Expenditure	Ln Per Capita SDP	$\bar{R}^2$	F
Ln Per Capita Assistance by All Indian Financial Institutions					
1980-81	–9.32479 –(3.1762)	2.1927* (4.2388)	–	0.5662	17.960
1985-86	–10.0423 –(3.0947)	2.2184* (4.3544)	–	0.5802	18.9611
1990-91	–16.1707 –(4.5100)	3.0330* (5.8246)	–	0.7169	33.9263
1994-95	–12.4846 –(2.8972)	2.4631* (4.1431)	–	0.5549	17.2093
1980-81	–9.4030 –(3.1218)	--	1.6970* (4.1489)	0.5550	17.2134
1985-86	–7.4681 –(2.3831)	–	1.4568* (3.8908)	0.4926	13.6218
1990-91	–10.7400 –(2.3643)	–	1.8327* (3.4017)	0.4484	11.5717
1994-95	–12.2950 –(2.5716)	–	2.0085* (3.6991)	0.4938	13.6832

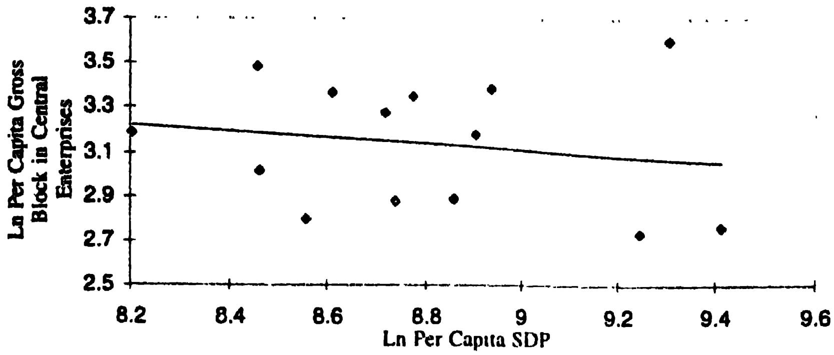
Note: See, Table 1.

TABLE 6. RELATIONSHIP BETWEEN PUBLIC EXPENDITURE AND LEVEL OF INCOMES ACROSS STATES

Year	Constant	Ln Per Capita SDP	$\bar{R}^2$	F
1975-76	0.4379 (0.2908)	0.6544* (3.0698)	0.3932	9.4236
1980-81	0.6028 (0.7478)	0.6824* (6.2332)	0.7444	30.6824
1984-85	2.9933 (2.5971)	0.4117* (2.8352)	0.3512	8.0383
1990-91	1.6482 (1.6742)	0.6211* (5.3197)	0.6774	28.2988
1994-95	0.50138 (0.5167)	0.7669* (6.9260)	0.7832	47.9695

Source: Table 1.

Figure: 8: Distribution of Investment (Gross Block) in Central Enterprises across States – 1993-94



states. Institutional factors determine the property rights and structure of incentives which in turn determine productivity in the economy. The system of tenurial relations in agriculture and a conducive environment for the operation of private enterprise in manufacturing and service sectors are important institutional determinants of investment spread. A favourable institutional environment results in establishment of two-way linkages between agriculture and industry, and states with strong two-way relationship will grow faster [Kalirajan and Shand 1996].

In a federal polity like India, regional policies and the distribution of central government expenditures have an important bearing on the pattern of regional growth both directly and through their effects on the distribution of private investment. Unfortunately, information on statewise distribution of central government expenditure is not available. Moreover, the distribution of the stock of central investment in public enterprises (gross block estimated at historical cost) does not follow any pattern. This shows that location of central public enterprises has not contributed much towards strengthening backward and forward linkages, contrary to the general impression.

Nor have the poorer states been able to reap full benefits from investments in industries like steel and coal which are predominantly located within their boundaries due to policies like freight equalisation. The transport subsidy given to equalise the prices of these basic inputs throughout the country has not only robbed the forward linkage benefits of locating these industries in poorer regions but has also led to allocative distortions.

(c) Distribution of State Government Expenditure

While the investments in central enterprises have not strengthened inter-sectoral linkages in poorer regions of the country, neither has the spread of infrastructure facilities created by state government spending helped to improve productivity in less developed states. The distribution of per capita expenditure analysed by regressing per capita expenditures with per capita SDP in a log-linear equation presented in Table 6 (Figure 7) shows that richer states do indeed have significantly higher per capita expenditures. The income elasticity of expenditures declined from 0.65 in 1975-76 to 0.41 in 1984-85, but increased to 0.62 in 1990-91 and further to 0.77 in 1994-95. Fiscal adjustment undertaken since 1991 seems to have accentuated inequalities in state per capita expenditures across state governments.

Table 8: Per Capita Implicit Transfers from States' Borrowing

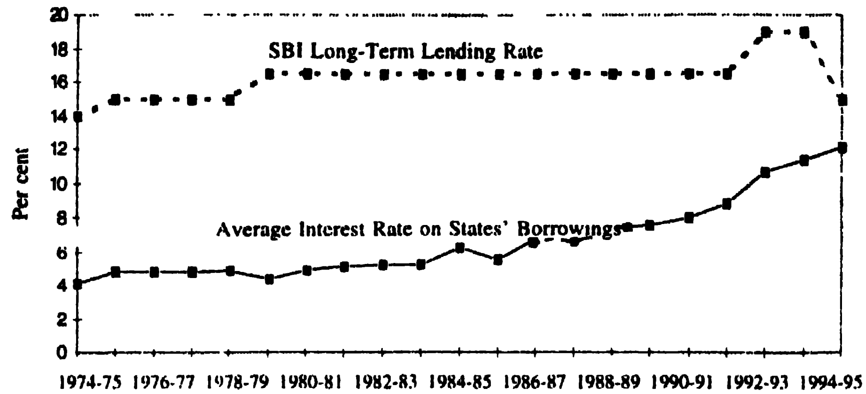
(Rs at 1981 prices)

	1980 -81	1985 -86	1990 -91	1993 -94
Gujarat	41.38	57.13	67.12	31.57
Haryana	55.84	73.79	66.83	50.62
Maharashtra	44.58	56.44	58.90	37.89
Punjab	46.10	72.16	140.56	103.82
	45.07	*60.53*	*72.94*	*46.54*
Andhra Pradesh	42.87	44.58	32.61	27.93
Karnataka	40.00	41.96	36.41	33.61
Kerala	49.77	49.12	51.34	51.04
Tamil Nadu	35.07	43.73	40.86	29.02
West Bengal	45.03	46.15	35.98	35.8
	42.00	*44.93*	*37.87*	*33.68*
Bihar	31.32	43.79	30.89	31.93
Madhya Pradesh	29.32	60.11	38.51	32.17
Orissa	52.71	54.53	49.60	46.92
Rajasthan	52.34	53.15	55.76	40.79
Uttar Pradesh	42.70	51.84	45.48	41.28
	39.58	*51.59*	*42.23*	*38.13*
	42.13	**51.62**	**47.50**	**38.84**

Table 7. Interstate Tax Exportation – 1993-94

	Household Consumption	State Govt Consumption of Goods	Total Consumption	Per Cent of Total Consumption	Sales Tax Collections	Per Cent of Total Sales Tax	Effective Tax Rate	Difference between Consumption Shares and Tax Shares	Per Capita Tax Exported at 25 Per Cent of Difference	Per Capita Tax Exported at 50 Per Cent of Difference	Per Capita Tax Exported at 100 Per Cent of Difference
Gujarat	18470.1	475.2	18945.4	5.8	2771.0	9.9	14.6	4.2	6.8	13.7	27.3
Haryana	8562.4	208.6	8770.9	2.7	768.5	2.8	8.8	0.1	0.4	0.7	1.4
Maharashtra	37775.3	770.7	38546.0	11.7	4740.8	17.0	12.3	5.3	4.4	8.9	17.7
Punjab	11617.6	295.7	11913.3	3.6	961.2	3.4	8.1	-0.2	-0.6	-1.2	-2.4
High Income States	76425.4	1750.2	78175.6	23.8	9241.5	33.2	11.8	9.4	4.0	8.0	15.9
Andhra Pradesh	27198.2	687.1	27885.3	8.5	2323.9	8.3	8.3	-0.1	-0.1	-0.3	-0.6
Karnataka	17876.8	175.7	18052.5	5.5	2277.9	8.2	12.6	2.7	4.0	8.1	16.1
Kerala	15161.4	310.3	15471.7	4.7	1533.2	5.5	9.9	0.8	1.9	3.7	7.4
Tamil Nadu	18380.8	706.2	19087.0	5.8	3210.0	11.5	16.8	5.7	8.6	17.2	34.4
West Bengal	29138.0	837.3	29975.3	9.1	1813.1	6.5	6.0	-2.6	-2.5	-5.1	-10.1
Middle Income States	107755.2	2716.6	110471.8	33.6	11158.1	40.0	10.1	6.4	1.7	3.4	6.8
Bihar	26044.3	322.1	26366.4	8.0	1137.5	4.1	4.3	-3.9	-3.0	-6.1	-12.1
Madhya Pradesh	24634.9	587.6	25222.5	7.7	1214.1	4.4	4.8	-3.3	-3.3	-6.6	-13.2
Orissa	9754.6	309.6	10064.2	3.1	514.5	1.8	5.1	-1.2	-2.6	-5.2	-10.4
Rajasthan	24630.2	330.0	24960.2	7.6	1053.1	3.8	4.2	-3.8	-4.7	-9.3	-18.7
Uttar Pradesh	52705.7	645.2	53350.8	16.2	3552.6	12.7	6.7	-3.5	-1.7	-3.3	-6.7
Low Income States	137769.7	2194.5	139964.2	42.6	7476.6	26.8	5.3	-15.8	-2.8	-5.5	-11.1
All Major States	321950.3	6661.2	328611.6	100.0	27876.2	100.0	8.5	0.0	0.0	0.0	0.0

Figure 9: Interest Subsidy on States' Borrowings



(d) Intergovernmental Transfers and Horizontal Equity

Higher per capita expenditures in richer states are caused mainly by their high revenue capacity. Even when tax rates are identical, the states with higher per capita incomes collect higher per capita taxes and are thus able to provide higher standards of public services. In other words, the states with lower per capita incomes will have to levy taxes at higher rates in order to provide the standards of service available in more affluent states. Such an argument for redistributive transfers has been made on the grounds of horizontal equity [Boadway and Flatters 1982].

The above analysis shows that intergovernmental transfers in India, although they have had a significant redistributive impact, were nevertheless not adequate to enable the poorer states to provide equal levels of public services at given tax rates. Table 7 shows that central transfers have a significant redistributive impact as seen by the negative income elasticity coefficients. Also, the degree of redistribution was not very high in the early 1980s. It increased steadily until 1991-92, but declined thereafter, coinciding with the fiscal adjustment programme undertaken by the central government. Nevertheless, this redistribution achieved through intergovernmental transfers was not adequate to offset the fiscal disabilities of poorer states arising from their low revenue capacities [Rao 1997].

(e) Regressivity of Implicit Intergovernmental Transfers

A part of the problem lies in the inequitable transfer of resources due to implicit transfers. There are at least three important sources of such transfers: (i) interstate tax exportation, (ii) subsidised lending to the states from the central government and the banking system, and (iii) subsidised lending to the private sector by long-term refinancing institutions and assistance from the banking and financial institutions for priority sector activities. While the first two sources of implicit transfers affect the ability of different state governments to undertake expenditures, the third alters the rate of return and thereby, regional allocation of private investments.

Interstate tax exportation arises from the levy of origin-based cascading-type sales taxation along with the taxation of interstate sale of goods. The sales taxes levied by the states are predominantly on the basis of origin, at the stage of manufacture or import. The tax is levied on inputs, outputs and capital goods alike. As the tax is fully shifted forward due to the oligopolistic nature of the market, the levy of tax on interstate sales causes significant interstate tax exportation not only of the tax on the goods sold in interstate sales, but also of the cascaded taxes on inputs and capital goods. This results in the exportation of the tax burden from more affluent producing states to the consumers in poorer consuming states.

Non-availability of data on interstate trade makes it difficult to estimate interstate tax exportation accurately. However, analysis presented in Table 8 shows that in states with above average per capita income tax shares are higher than consumption shares (household consumption plus state government purchase of goods). Of course, the entire difference cannot be attributed to interstate tax exportation. A part of the difference may also be due to higher effective tax rates in more advanced states. By making alternative assumptions that the difference in effective rates (share of sales tax collections in total consumption) is partly due to legitimate variations in effective rates and partly due to interstate tax exportation, we have estimated the amount of interstate tax exportation. Thus, when it is assumed that 50 per cent of the difference is attributed to tax exportation, the more affluent states collected more than Rs 2,100 crore from the consumers in states with less than average per capita income. Thus, the richer states collected almost 13 per cent of their sales taxes from the residents of poorer states and the residents in poorer states paid 19 per cent of their sales tax payment to the richer states.

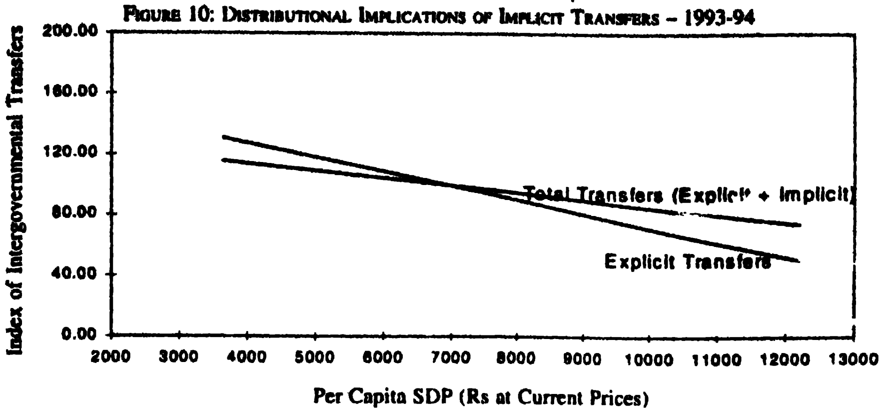
The second important source of implicit intergovernmental transfer arises from subsidised lending to the states. Loans from the central government alone comprise almost 68 per cent of states' liabilities, the bulk of which was given for plan purposes under the Gadgil formula. Market borrowings constitute another 22 per cent which is subscribed mainly by the banking system to fulfil the statutory liquidity ratio (SLR) requirements.[5] The extent and nature of intergovernmental transfers from this source depend upon the pattern of interstate allocation of these loans and

Table 9: Income Elasticity of Intergovernmental Transfers in India

Year	Income Elasticity of Explicit Transfers	Income Elasticity of Implicit Transfers from States' Borrowing	Income Elasticity of Total Transfers
1981-82	-0.3855*	0.2506**	-0.1704**
1982-83	0.4877*	0.3149**	-0.2085
1983-84	-0.3817*	0.3711**	-0.1238
1984-85	-0.3754**	0.3951**	-1.4494
1985-86	-0.4617**	0.3073**	-0.2241
1986-87	-0.5056*	0.5165	-0.1863
1987-88	-0.6910*	0.4845**	-0.2901@
1988-89	-0.5692*	0.6481	-0.1752
1989-90	-0.8171*	0.5641**	-0.3242
1990-91	-0.7410*	0.7348**	-0.2726@
1991-92	-0.8248*	1.1138	-0.3201
1992-93	-0.0640*	0.6188@	-0.2490
1993-94	-0.6669*	0.3837	-0.3975**

Notes: Income elasticities are estimated by regressing per capita transfers across states on their per capita SDP. * Significant at 1 per cent level. ** Significant at 5 per cent level. @ Significant at 10 per cent level.

FIGURE 10: DISTRIBUTIONAL IMPLICATIONS OF IMPLICIT TRANSFERS – 1993-94



difference between the interest rate charged and the market rate of interest. Although in recent years there has been a significant increase in the rates of interest on states' borrowings, as may be seen from Figure 9, they still remain significantly below the market rate. In addition to these low average rates of interest (which are partly due to the periodic rescheduling of loans on the recommendation of the Finance Commissions), the central government also writes off loans from time to time.

Table 8 presents the distribution of per capita intergovernmental transfers due to subsidised lending to the states. Clearly, per capita transfers in high income states were higher than both middle and low income states. In 1993-94 the average per capita transfer received by the low income states was almost 18 per cent lower than that of the high income states. The difference was greatest in 1990-91 when the per capita transfers received by the low income states were 43 per cent lower.

The regressive nature of the implicit transfers due to states' subsidised borrowing from the central government and the banking system is brought out in the cross-section income elasticities presented in Table 9. The progressivity of explicit central transfers is brought out by the negative and significant elasticity coefficients throughout the period from 1981-82. In contrast, elasticity coefficients of implicit transfers had positive and significant coefficients right through the period indicating the regressive nature of these transfers. When implicit transfers are added to the explicit transfers, the progressivity of the transfer system is significantly reduced. Although the coefficients are negative, the absolute value of the coefficient is substantially reduced and the coefficients are not significant in most of the years.

Figure 10 brings out the effect of implicit transfers due to interstate tax exportation and subsidised lending to states in 1994. It is clear that the progressive impact of the intergovernmental transfer system is considerably reduced when the effects of these two are taken into account.

The two sources of implicit transfers discussed above affect the ability of the states to raise revenues and thereby the standards of social and economic services provided by them. In contrast, subsidised lending by the banking system and refinancing facilities provided by the AIFIs at subsidised rates to the private sector affect interstate resource transfers by altering the pattern of private investments.

Table 10 presents the distribution of priority sector credit and the financial assistance given by the AIFIs. The distributions of both sources of lending are disproportionately in favour of high income states. In the aggregate, these states, with just about 19 per cent of population, received 35 per cent of priority sector lending given to agriculture, small enterprises and exports. Their share of assistance from AIFIs was 43 per cent. In contrast, the low income states with almost 44 per cent of population received about 15 per cent of priority credit and 22 per cent of assistance from AIFIs. Thus the distribution of subsidised credit by the banking system and AIFIs has conferred disproportionate benefits on more advanced states.

V

Concluding Remarks

Our analysis shows that pattern of economic growth in India since the mid-1960s does not conform to the predictions of neo-classical growth theory. Per capita incomes across states over the period have shown divergence, and interstate disparities have been accentuated. The increases in divergence and dispersion have been much sharper in the initial years of liberalisation.

The analysis of the determinants of differences in growth rates among states confirms the divergence. The states with high initial levels of incomes grew faster than those with lower incomes leading to divergence in per capita incomes over time. It is also seen that the pattern of private investment is a major determinant

TABLE 10: INTERSTATE REDISTRIBUTION THROUGH CREDIT POLICIES

(Per cent)

	Population Total (1995)	Share in Bank Credit March 31, 1994 Priority Sector	Share in Bank Credit March 31, 1994 Total	Share in AFI Assistance 1994-95
A High Income States	18.7	35.4	29.4	42.8
1 Goa	0.1	0.3	0.3	0.7
2 Gujarat	4.9	4.9	5.4	13.2
3 Haryana	2.0	1.5	2.8	2.6
4 Maharashtra	9.4	25.3	15.8	23.5
5 Punjab	2.4	3.3	5.1	2.8
B Middle Income States	30.9	33.4	37.3	29.7
1 Andhra Pradesh	7.8	6.8	8.9	7.5
2 Karnataka	5.3	6.0	6.8	6.1
3 Kerala	3.4	3.4	4.3	2.0
4 Tamil Nadu	6.4	10.3	11.1	9.3
5 West Bengal	8.0	6.9	6.2	4.8
C Low Income States	43.6	14.4	24.2	21.9
1 Bihar	10.3	2.3	4.1	2.1
2 Madhya Pradesh	7.9	3.2	4.9	5.2
3 Orissa	3.7	1.3	2.2	2.3
4 Rajasthan	5.3	2.1	3.3	4.4
5 Uttar Pradesh	16.4	5.5	9.7	7.9
D Special Category States	5.4	1.9	2.8	2.2
E Union Territories	1.4	14.9	6.4	3.4
All States	100.0	100.0	100.0	100.0

Notes: ** Unallocated 4.9 per cent. n- negligible.

Source: (1) Report on Currency and Finance, 1994-95, Reserve Bank of India.

(2) Public Enterprise Survey, Ministry of Industry, Government of India.

of economic growth. Human capital variable represented by literacy rate also is a significant determinant since the 1980s.

The regional pattern of investment allocation in any country depends upon resources, institutions and policies. Our analysis shows that social and economic infrastructure as represented by public expenditures has a critical role in determining interstate allocation of private investment. The divergence in growth rates thus, is largely explained by the skewed distribution of public expenditures causing larger flows of investments to more affluent regions in the country.

While the regional policies of central and state governments and public expenditure policies of the state governments play important roles in ensuring a balanced spread of infrastructure, the distribution of central investments in public enterprises does not show any favourable bias towards less developed states. At the same time, per capita public expenditure is found to be significantly higher in states with higher per capita incomes.

The significant positive association between per capita expenditures and per capita SDP brings to the fore the role of intergovernmental transfers in equalising the standards of social and economic services. While the phenomenon has to be partly attributed to the inability of the formal intergovernmental transfer mechanism to adequately offset the fiscal disabilities of poorer states, it must be noted that the informal channels of transfer too have played an important role, both by augmenting the revenues of relatively better off states and in channelling larger flow of investments to them. In this paper, we have identified three major sources of such implicit transfers. First, the prevailing system of sales taxation has facilitated the richer states to export a significant portion of their tax burden to the residents of poorer states. Second, subsidised lending to the states from central government as well as from the banking system has led to regressive intergovernmental transfers. Finally, subsidised lending by the banks for financing priority credit and refinancing facilities given by AIFIs have helped the richer states to gain greater access to investible funds at subsidised rates.

Our analysis has shown that the divergence in per capita incomes has increased, particularly since 1991, when economic liberalisation measures were initiated. This is not surprising because, with liberalisation of industrial policy, the flow of private investment has been mainly based on the relative rates of return on capital in different states. In this scenario, the more advanced states with relatively better infrastructure, trained human resources and accessibility to markets have been able to exploit the opportunities better than the backward states.

The study offers important lessons for development strategy. Unless significant affirmative measures are taken to correct imbalances in the spread of infrastructure through regional policies and intergovernmental transfers, divergence in incomes across states will continue to widen with both economic and political ramifications. There is also an urgent need to rationalise the tax system to minimise free-riding through exportation of the tax burden to non-residents. It is also important to understand properly the implications of and implicit transfers involved in subsidised lending to state governments, and the intergovernmental transfer mechanism should be designed to take account of these implicit transfers.

Notes

1 Breton (1996) argues that competitive equality and cost-benefit appropriability of jurisdictions are important contributory factors for the stability of horizontal intergovernmental competition.

2 For a comprehensive review of these studies see, Barro and Sala-i-Martin 1995 (Chs 10 and 11).

3 The conditional convergence hypothesis assumes a single steady state equilibrium. But, as discussed by Galor (1996), an economic system may be characterised by multiple steady state equilibria and may thus lead to 'club convergence' even in neoclassical growth models that exhibit diminishing marginal productivity of capital and constant returns to scale. A testing of club convergence hypothesis with these data will be attempted in a subsequent study.

4 We have also estimated regressions by employing the ratio of expenditures on social and economic services to SDP, and the ratio of capital expenditure to SDP. However, as these equations did not provide any additional insights, they are not reported here.

5 At present, the SLR stipulation requires the commercial banks to keep 25 per cent of their demand and time liabilities in eligible assets like central and state government bonds. Financial sector reforms brought down the SLR from 38.5 per cent in 1991-92 to 25 per cent in 1996-97.

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Science, Knowledge and Society

Sundar Sarukkai

THERE are many issues, some convergent and others divergent, in the stand taken in the introduction and two articles by Sokol and Meera Nanda (*EPW*, April 18, 1998). As the introduction makes explicit, this collection is aimed at "initiating a critical reassessment of the culturalist critiques of modern science among Indian intellectuals". These three articles take a strong position against relativist epistemologies and in favour of scientific epistemology. The target of these attacks is the postmodern discourse. Making 'Sokol's affair' the catalytic point, they condemn the postmodern and postcolonial discourse by stating, "if they can be made to support a purely nonsensical thesis, one cannot but wonder how sound they are..." and also "to wonder, at the very minimum, if these theories are not missing something important about the nature of scientific knowledge?" (Nanda p 919).

Their arguments also go beyond being merely a critique of postmodernism. Both Sokol (1998) and Nanda (1998) would like to prioritise scientific knowledge as opposed to other knowledge systems, primarily in order to liberate the 'oppressed' in India (and presumably in other societies) and also to guard societies against 'fascism' which apparently arises in societies not sufficiently 'scientific' in nature. Of course, this tendency to valorise science as an agent of emancipation is nothing new, and many scientists and commentators of science have long held this position. Sokol's and Nanda's responses differ in their epistemological and ideological leanings towards authentic scientific knowledge and the belief in the Left as an agent of emancipation of the oppressed.

Although Sokol's concern is against relativism it is also directed against the intellectual trend in American universities and the American Left. I shall not discuss his article in detail like I shall do with Nanda's but only point out that too much has been made of too little as far as his 'affair' is concerned. Primarily, the fact that he managed to publish what he considers a fraudulent piece which extensively used the language and style of postmodernism has been seen as an indictment of postmodernism itself. The flaws in making such a conclusion are very clear, at least for those who do not have ideological positions at stake.

Even in scientific literature, there have been many examples of fraudulent papers (and many times papers filled with mistakes but which get published because they conform to the received discourse), which have been published. Most times these papers get published for the same reasons which made the editors of *Social Text* publish Sokol. But unlike him and his friends nobody would like to claim that these cases prove the duplicity of the discourse itself. And frankly, if you place his piece within the tradition of postmodernism there is nothing to even raise a gasp about. For what does it matter if Sokol thought he was pulling a fast one – his text transcended his intentions the moment it was brought into the public domain. As an author of that piece, he has no copyright over its meanings including that of 'fraudulence'.

Sokol seems to believe that 'sloppy thinking' which does not distinguish 'truth' and 'claims of truth' lies at the root of the confused postmodernist notions of truth. "What I'm saying is that it's crucial to distinguish between the concept of 'truth' and the concept of 'claim of truth'..." (Sokol 916). He believes that it is this confusion which pervades all alternate theories of truth. I find it hard to believe that Sokol does not realise that it is exactly this distinction which is the bone of contention: How do 'claims of truth' become 'truth'? Science claims to have a methodology which makes this transition possible. The critique of science, rephrased for Sokol, is merely the questioning of the primacy of this particular methodology. There seems to be no 'obvious' way to believe that a truth which has been established from a claim of truth can only be done within the scientific enterprise. Most human activities always involve a similar kind of adjudication.

On the other hand, Nanda's thoughtful and coherent paper situates the problem in the Indian context, primarily for two reasons: one, the project of emancipation through the agency of the Left and two, her conviction that alternative epistemologies tend to consolidate Hindu culturalism which she sees as a fascist movement. To stake these positions she argues forcefully for the primacy of scientific knowledge and method. Her elaborate defence of this position allows me to intervene at many places. I shall focus on some, in my view, facile categories which allow her to establish her claims.

Let me summarise my own position here. Nanda would like to base her arguments against relativism through recourse to scientific epistemology. But nowhere in her paper does she succeed in 'proving' that alternative epistemologies are untenable; she merely keeps reiterating her belief that such alternative epistemologies do not fit into her political and personal agenda. The arguments against alternative epistemologies (especially those in 'opposition' or distanced from the scientific one) are untenable if based on epistemological arguments, *per se*. The reasons have to do with confusing domains of applicability, conflating different 'objects' of discourse, insufficient understanding of the link between epistemology and social behaviour, incoherent positions of epistemology and action and so on. The state of the Left and their claims as agents of emancipation, the resurgence of Hindu fascism, etc, are not problems in the epistemological domain. Linking them with epistemological concerns is a project which stretches its resources beyond their capacity.

I do not believe that comparison of different 'epistemologies' is possible in an 'objective' way. There is a need for a qualitative shift from *posteriori* epistemologies to a priori categories of social and individual existence. Traditional and alternative systems of knowledge are just that – systems and not stray statements taken out of their systemic context.[1] To imply, as Nanda does, that explanation from science regarding crops is more desirable than the explanation of a peasant woman (920) is to be blind to the notion of lived experience. Even seen through categories of science, lived experience is empirical, perhaps more empirical than much of science. But this does not imply that science and tradition have to be mutually exclusive strategies – when they both shed their ideological masks, they can grow together.

We do not live by knowledge alone. Of course, one may tend to look at every act of ours through an epistemological prism but this is exactly the reason why there is so much posturing on both sides. Staking for the authenticity of lived experi-

ence should not be seen entirely as an epistemological project.

Domain Problem

There are many overarching concepts in Nanda's paper which by their very unification of diverse elements make possible her conclusions. Let me list some of them: science, India, Left, truth, knowledge, modernisation, oppressed, culture, reality, fascism, and so on. Many of these 'unified concepts' are predicated on her homogeneous view of 'science', 'scientific knowledge', 'scientific temper', and so on. I am perfectly willing to buy the argument, if she holds it, that science stands for sciences and the unification of plural sciences into one 'science' is to facilitate communication and removing needless qualification. I am in much sympathy with this communication praxis but am afraid that this first step already hides structures which will question the conclusions reached later. If these structures are exposed at every step, I see no easy way out for her as far as her conclusions are concerned.

To expose the multiplicity inherent in science, I shall first address the 'domain problem'. I would like to view this in two parts: domain of application and domain of action. Epistemology is concerned with the domain of application, that is the set of statements over which epistemological structures can be brought to bear. This does not constitute 'science' in full. There is also a domain of action where science converts epistemological statements into principles and agencies of action. Many times it is not easy to find a simple link between these two domains for the reason that technology plays the surrogate to science in this programme. Neglecting to not only mention technology but also not explicate it is part of Nanda's view of science as an homogeneous entity whose different activities are linked together through its own canons. One does not need a sociology of science to realise one cannot hold such a nice picture of science.

Let us see the problem of conflating domains in Nanda's project. Her basic view of science is this: it is a project which allows us to generate a set of culturally neutral, valid statements about the world. Nanda's comment about its "ability to tell us something that is valid across cultures" (916), is merely an assertion. The statements of science tell us something about particular things. These things, as we well know, belong to the 'natural' world, in the sense that they are mute towards what is said about them I am sure Nanda appreciates this well known point but her disinclination to qualify this allows her to validate across domains which are not part of the scientific project. Scientific epistemology is about nature and the role it would like to play in understanding individual and social activity of humans should be carefully examined before assuming its validity in these domains. As we know quite well, epistemological structures cannot be easily carried over from one incompatible domain to another.

Consider these quotes from Nanda: "scientific knowledge...served as a vanatage point for critical evaluation of our social context" (916) and "the necessity of a scientific world view for the advancement of equality and justice for all in our country" (919). How does an epistemology related to 'things' get transformed into an epistemology of social action unless society and its human constituents are to be seen as 'things'? Even granted that, at this level of approxi mation, one could 'objectify' society an its peoples and generate some kind o scientific knowledge about them and thei social interactions, how does it allow fo the link to social change which is not product of 'thing', *per se*. Things do no act. That is, it is not epistemology whicl is the ordering force for social relation and cause for its inequalities. This is most important point which she neglect to understand.

The domain problem is importan because Nanda continuously reject traditional systems of knowledge becaus they do not fit the scientific criteria fo knowledge. This too is well known - science functions by exclusivity, b definition. As has happened innumerabl times, non-science has been kept out o science but this does not imply a negatio of epistemology. Let me clarify further

"If there is anything that is absolutise by scientific reasoning, which the critic

ridicule as big R-Reason, it is this demand for a scrutiny-by-doubt, a demand that we subject our beliefs to tests not under the control of these same beliefs" (Nanda 918). This is surely a tall claim, even for scientific reasoning. Let us say I believe in electrons. How do I subject this belief to 'tests not under the control of these same beliefs'? I don't know how, nor do the scientists. To test my belief in the existence of electron, I begin with concepts like charge, mass, etc. Then I design experiments whose outputs I interpret within the space of these beliefs I hold about the electron. This is the case with a majority of scientific claims about the things. Beliefs do not get justified in a vacuum. They are intrinsically linked with the nature of beliefs itself.

This insensitivity to the domain of application continues in her paper. "...believe that dispassionate striving for the ideal of objective truth ... is the best epistemology for the left" (919). Down the line, she places 'cultural introspection' implicitly on par with scientific methodology as a way to combat that "rising cultural and religious chauvinism" (919). Relentlessly she continues with the same mistake. Science is "capable of empirically testing the effects of social bias" and scientific knowledge puts "increasing distance between its theories and the social context from which they admittedly arise" (919), and so on. In the closing parts of her paper she compounds the mistake irretrievably. "The historic role of scientific ideas has been to replace metaphysics with physics, to demolish the closed, hierarchical world and reveal the pre-social equality of all human beings, and to free the mind from fear of gods and djinns" (922). Phew! This really puts the pressure on science and seeks a status to science which it itself is fast recognising as difficult to attain. It is really being more Roman than the Romans themselves or more appropriately in the context of Nanda's attack on the Indian intellectuals, more American than...

The problem with the last statement exemplifies the problem with her other statements: "Replaces metaphysics with physics" – a non-starter, especially in the context of modern physics. What science effectively does is to be blind to the shadow of metaphysics clinging to the statements in it. Everything in physics is metaphysics – causality, properties, laws, relations, qualia, states, etc. What she views as replacement is what some of us would consider as forced exclusion.

At a micro level this also means that since science, in her view, will demolish caste structures then the practitioners of science would first and at an individual level not follow caste hierarchies. At a macro level science as a tool for emancipation implies that scientists are agents of emancipation or at least lead their lives according to the tenets of science. I do not even have to argue against this absurd view. Scientists, for long and surely in the future, make a distinction between *doing science* and *living science*. That is because they understand something which Nanda apparently does not. Domains of applicability are very different. Their families and children are not objects which become mathematical symbols ready for manipulation nor can they find universal laws which their spouses and colleagues obey. Not that they expect this! Just because one believes in the efficacy of scientific methodology which allows us to make claims about electrons does not imply in the efficacy of these methodologies to make claims about Ram or Rahim.

Now if Nanda wants to claim that although the transformation of scientific methodology from domain of objects into domain of people is done at a macro and not individual level, then she has to explain how such a thing happens across a sea of incompatibility. Of course, I do accept that science has had an impact on society and sometimes for social emancipation. This is possible because science could function as an imposed ideology and for reasons which are not necessarily scientific in character. More importantly, Nanda's view neglects the fact that the action of science on societies is not a singular cause. Changes in societies are a product of many causes, some which have to do with science, technology and modernisation. There are many other factors besides these.

There is a way in which science has manifested itself in society and culture. This is through technology. It is not a surprise that Nanda ignores technology. This is not surprising because people who have an ideological stake in creating a particular image of science have routinely done this. The most charitable view one can take here is that Nanda means science and technology when she refers to science. But in this conflation of meanings, there is the genesis of the problem, that which illuminates her ideological perspective.

There is a good reason why technology is not explicitly invoked by those who talk only in terms of science. It is because technology, many if not most times, does not pay obeisance to the scientific canons of behaviour. It plays to rational, scientific epistemology. It is technology which predominantly mediates between scientific epistemology and societies. But emphasising technology as an agent of science will cause unnecessary problems for Nanda's conclusions. I do not intend to take the view that technology is not based on scientific knowledge. But I also do not intend to take the simplistic view that technology is a direct by-product of scientific epistemology. Not only have technologies, in their own right, contributed to the furtherance of scientific knowledge but also have not adhered to the 'scientific temper' in their own formations. Technologies are messy. Many times they are not products of rational step-by-step process. They are also not amenable to control like scientific objects, numbers, functions, and so on.

Subsuming technology within science is to silence its truancy in order to exhibit science as a rational method. Even if one acknowledges technology to be 'quasi-science' there still remains the question of agency. How does technology stand for science in forming social beliefs? Is there a nice picture for us here? Science is objective and rational, technology is a by-product of science and so is objective and rational; technology brings about change in societies which therefore make societies objective and rational. Some argument like this underlies the belief that scientific epistemology can entail social change. But how is this link possible?

Let me grant, keeping my earlier scepticism aside, that technology does embody scientific objectivity and rationality. Now how does one transform the objective and the rational present inside machines and products to objectivity and rationality in individual and societies? How does one transfer methodologies and world views through commodities of use? How is it that we become more caste conscious, or see the evils of sati (or even become a leftist) through technology or through canons of science as applied to objects like electrons? How can Nanda argue for their link and the possibility of transmission of 'scientific values' while being fully within the scientific discourse?

Nanda is betrayed by science itself, that which she so much wants to save from other predators. Science cannot handle the burden put on it by her. Science does not have to make these strong claims. Caste structures are not demolished by each one of us taking an oath to have the scientific temper. That is not only to reduce sociology and 'politicology' to a few methodological do's and don'ts but also to reduce the rich

tapestry of science to an outdated scientific temper.

Scientific and Cultural Chauvinism

"The need for a critical introspection was never more acute than it is today, when we are faced with the rising cultural and religious chauvinism" (Nanda, 919). Nanda is clear about the need to come together, at least the leftists, in the defence of science, in order to combat the rising cultural chauvinism. Sokol's article, the *EPW* theme note and Nanda's paper continuously stress the point that post-modernism has not only contributed to this disturbing trend but also has helped to validate cultural and religious chauvinism.

There is something worrisome in this position. That somehow in the cultural dynamics of our societies, cultural and postmodernist discourses have suddenly been formed almost as if in a vacuum. There are many reasons to be wary of such a simplistic 'Big Bang Theory' of postmodernism and cultural chauvinism. I shall mention only one reason centrally relevant to this claim: if before the postmodernists and postcolonialists (early 1980s according to Nanda) there was an acceptance of a general spirit of scientific temper, at least by the intellectuals, why was there a sudden shift voiced by people like Nandy, Vandana Shiva, and so on? The easiest answer is that they followed the current fad at that time in the west and many Indian intellectuals jumped on the rolling wagon. But this is purely an argument of denigration, whether in part true or not. To understand the sudden shift in India (and earlier among their western counterparts) is to understand scientific chauvinism and see cultural chauvinism as a response to it.

This is the heart of the problem. Scientific discourse has been reduced to very convenient, neatly packaged epistemological sachets with elements like objectivity, rationality, and so on. With state backing, especially following the Nehruvian vision, these catchwords have developed their own momentum and threaten to intrude into all areas of the society. This would even have been welcome if not for their highly exclusivist strategy. The worrisome part in this is that the exclusivity is not a by-product of the scientific methodology but arises from personal or group agendas. Already the nature of the scientific discourse is highly exclusivist and to compound it individuals and groups appropriate the catch-terms of this discourse for their own ideological ends. It is not at all difficult to see if this is so: an ethnographic study of the scientific community throughout the world, including India, would generate multiple meanings for science, objectivity, rationality, and so on! Science coupled with an ideological fervour reminiscent of Nanda's, has built a new Indian society and in building this, through primacy of neatly packaged epistemological picture, has attempted to keep all non-science out of its purview. By reducing all epistemologies into one epistemology (that of science), it has negated the epistemological foundations of other systems of knowledge.[2]

Thus cultural chauvinism did not arise in a vacuum where a set of people aping the west or given to anti-scientific temper (real temper, this!) suddenly decided to revolt against the epistemology inherent in science. Cultural chauvinism is a direct response to scientific chauvinism. Nanda's language in her paper is a good example of this chauvinism. To say that not only is there a cohesive epistemology of science but also that it is a privileged one and adding to it statements like 'against gods and djinns...' is an extreme example of chauvinism. Not to expect a response to this chauvinism would not be scientific at all!

There is another historical route towards addressing the concerns of chauvinism and their 'link' with postmodernism and/ or denial of the primacy of scientific epistemology. This is to do with the fact that fascism has been prevalent in many forms in our modern societies, much before postmodernism came on the scene. In fact, many fascist societies were strong scientific and technological societies. It may even be argued that science and technology has contributed much more to the growth of fascist societies than any other ideological system. It is also not an accident that the communists have used science and technology as an important component of their ideology, for there is something intrinsic in science and technology which makes it very user-friendly for fascism, especially since the notion of 'control' lies at the heart of scientific epistemology. It is very simplistic to make a one-to-one connection between postmodernism and fascism especially while claiming that scientific temper will help eradicate it without first seeing what has been obvious to the whole world: that fascist communities have had very strong links with science and technology.

Nanda also makes a fundamental mistake in conflating issues of religion and science. I shall not go into this debate in detail except to make three short points. (1) As mentioned before, scientists themselves (and many of them good scientists at that) have learnt to differentiate between being religious and being scientific because they understand, however vaguely, boundaries of the discourse and domains of application.

(2) The link between science and religious chauvinism is once again at odds with each other. Fascism has routinely manifested itself in societies which are strongly scientific in character as well as in societies which are strongly religious in character. This means that to understand fascism is to understand ideology and not epistemology.

(3) The link between postmodernism and growth of religious chauvinism is completely misplaced, especially in the Indian context. There has been an increasing growth of religiosity, which of course is not equivalent with religious chauvinism, during the last decade or so. At least in parts of the south, I do not see a link between this growth and the political or philosophical discourses in mainstream India. The reason for this growth is obviously multi-causal including the changing patterns of the families, changing economic and social values, and so on. The growth in religiosity is not a product of some kind of epistemological stand arising from the postmodern discourse. Although increasing religiosity may increase religious chauvinism, there are also a host of other reasons including the dynamics of growth of communities and the political voices which arise in such a growth. To ignore these complexities and to posit a solution through some kind of acceptance of scientific epistemology is not only naive but is by itself also fascist in nature! The growth of religiosity during the last decade is a strong argument that this is the lived response to all the products of modernisation and not an explicit reflection of postmodernity. Confusing religiosity with Hinduism or religious (or cultural) fascism is to make a serious category mistake.

In a section titled 'Modern Science without Apologies', Nanda argues against constructivist theories of scientific knowledge and also against the claim that there is no hierarchy among epistemological systems. What should be validly accepted as knowledge is the scientific one. As I argued in the last section it is precisely this lack of 'apology' in staking claims of legitimacy that creates and stimulates chauvinism of various kinds. It is important for science to be able to find a self-articulation of its boundaries of

discourse. There cannot be science without apology; especially in these days when science wants to have a say in all disciplines.

Why do Sokol, Nanda and a host of others target the postmodernist discourse? What is it within the voice of post-modernism that disturbs them so much that they take it seriously in order to dismiss it? I find it hard to understand that Sokol's 'proof' seriously impinges on the substantive nature of post-modernism. Nanda continuously attacks postmodernism and postcolonialism because she sees them primarily as questioning the primacy of scientific epistemology. In contrast, Sokol, Nanda and others of their kind would like all of us to accept the 'universal truths' of science and its story about the natural world. But it is not surprising that nowhere in her paper can Nanda show, in the scientifically rigorous manner which she privileges, that scientific epistemology and the story of reality as written by science are true independent of the epistemological system one is in.

Herein lies the mystery behind the fact that much has been written about the danger of relativism, especially to do with knowledge claims, but very little has been done to concretely 'prove' the 'superiority' of scientific epistemology by using science's own systems of justification. Unable to find the structures of justification which can justify their belief about the primacy of the scientific epistemology, the proponents of science take recourse to claims of fascism which relativism (and postmodernism in general) supposedly engenders. There is an important lesson which we should have learnt well from many previous debates between competing systems. This is that when one side charges the other with inciting fascism you know they have already lost the debate. This charge of fascism and anarchy has been the last attack when other 'reasonable' tools fail. All that Nanda does is to continuously insist that alternative epistemologies cannot be on par with scientific epistemology; that science has its own special methods to take care of removing subjective elements in it, and so on. But nowhere is it possible for her to exhibit convincingly within the scientific tradition or otherwise why we should take her insistence at face value. And at the end of her paper when she runs out of steam after repeating this same assertion, she resorts to a picture of science as saving us from 'gods and djinns' and post-modernism as leading to cultural fascism. I think the moment she restores to this charge she has lost her case.

But there is something substantial in her concern about the danger of proliferating systems of knowledge, all or many of which may be as valid as scientific knowledge. Science, in her view, seems to have the right epistemology and has a lesson for all of us about running our life or our society. She does not want to give equal weight to different knowledge systems – one which talks about ghosts and the other about electrons. Her concern about the constructivist theories of knowledge are also germane but her tone betrays her lack of constructive engagement with these positions. I think this question is still very open but all that I am convinced of is that it is not epistemologically possible to compare different epistemological systems. I also believe that she and Sokol are mistaken about the connection between post-modernism and science.

Is there any relevance of postmodernism to science? At the level of practice there is obviously very little postmodernism can contribute to science. But this has to do with the nature of discourse itself and does not reflect particularly on the postmodern discourse. Many scientists believe that philosophy of science, for example, has contributed little or nothing to progress in science. The central relevance of post-modernism towards understanding science lies in the fact that postmodernism makes us reflect on science not merely in terms of its own praxis but also in terms of discourse formation. Postmodernism is a means of opening up discourses and it is through this that its impact in understanding science will be seen. We can then situate the problem regarding scientific epistemology versus other epistemologies in a proper discursive structure.

The first fall out of doing this is an awareness that science is more than neatly packaged epistemology. You do not need social constructivists to tell you that progress in science has rarely worked on the basis of its idealised scientific epistemology, including ideas of rationality, and so on. More important, focusing on this idealised image of epistemology closes our vision to other important, perhaps equally important, structures which go to constitute science. Knowledge is understood as justified (true) belief. This prevalent view of knowledge makes comparing different epistemologies a genuine problem. Because justification is itself a normative term, different systems of justification only embody different norms. And the fight between the different systems of knowledge end up being quarrels about whose norms one should accept. At this level of argument the scientific realist like Nanda cannot stay within epistemology and still argue for the primacy of scientific knowledge. The argumentative point at which she cannot sustain this occurs the moment she invokes fascism to rebut the critics of science.

If science is not just epistemology what else is it? In fact I would aruge that even before epistemological questions arise, there are other structures which make justification possible. Prominent among this is the ontological structure. The ontology of science commits one to a plethora of entities, real and abstract, objects in the world and theoretical entities. Much of epistemology in science is intrinsically linked with an inherent ontology. Many, if not most, of these entities are not open to scientific epistemology in the way Nanda's arguments seem to imply. There is very little of the scientific temper which will make one believe in these entities. There is first a sphere of ontology which, many times, is pre-epistemological! This strong commitment to a particular kind of ontology distinguishes science from other activities, notably humanities. Acting as if epistemology is the foremost and mot important member of the scientific activity is to ignore a fundamental aspect of science.

There is yet another problem, even if one sticks to epistemology. It is a myth that scientific epistemology has to do entirely with objectivity, rationality, and so on. Look at the kinds of epistemological structures present in scientific epistemology. The justification for different kinds of beliefs manifest in different ways. For example, there can be foundationalist theories of knowledge whose assumptions are that there are a set of beliefs which do not have to be justified and on which other beliefs are based upon. There are also a priori and intuitionist theories of knowledge which are intrinsic to scientific epistemology. For example, the question about how we can have knowledge about abstract mathematical objects have been answered by saying that such knowledge is possible because we know intuitively about these objects. This position that the truths of mathematics are open to us (or at least to 'good' mathematicians) intuitively has been held by very prominent mathematicians like Godel, Hilbert and a host of others. Other kinds of intuitive knowledge have also been strongly privileged in scientific epistemology. But when one accepts these a priori and intuitive categories of knowing then one also has to allow for different kinds of intuitive knowing.

One immediate response, essentially in order to control the proliferation of intuitive knowledge, is to claim that even if one has intuitive knowledge it becomes a part of science only after it is open to verification, and so on. This is a picture which is only partly right. Many more intuitive truths may have to be jettisoned compared to others which have been incorporated into science. But this too is not as simple a conjecture. The case of mathematical truth, not open to verification other than self-consistency and obeying identity conditions, is a classic example. Equivalently, even in 'knowledge' claims about our lives there is always a tension between intuitive knowledge and its acceptance.

So, my main argument is that epistemology in science is not as simple and straightforward a creature as Nanda and Sokol make it out to be. This should be factored in any discussion of science especially when contrasting it to other systems of knowledge. There is a lesson in both the strong scientific position regarding the primacy of scientific knowledge and the sometimes muddled arguments of the social constructivists. This is a simple lesson: You cannot compare and hierarchise different systems of knowledge based on epistemology alone. This has repeatedly failed because you cannot be in one epistemological system which can address the different systems of knowledge and can thus help to prioritise and validate these systems. You always run into the problem of incompatibility and differing norms of justification. This does not mean that different claims of knowledge cannot be judged in a way which accommodates these different systems of knowing. All I am saying is that crowing about scientific epistemology is not going to do the required trick.

Reducing social interactions and beliefs to a set of epistemological statements also does disservice to the complexity of society. It is not epistemology or its agent that lies at the root of social problems. A host of factors, including economic mobility, urbanisation, power structures, institutionalisation, and so on, play leading roles in creating and sustaining various beliefs. The situation is quite analogous to that in science. The main difference being that in science beliefs are open to change depending on the development of theoretical and experimental sophistication. To believe that social beliefs do not change is to overlook the obvious. Social beliefs also work in similar ways; their time scale of change may be much longer but they are always open to change. And when they are not, it is not due to somebody holding an epistemologically inferior position but due to power structures which make individuals or groups continue to hold onto certain positions. So invoking epistemology and prioritising scientific epistemology is to shift the focus and thereby negate the possibility of action and emancipation. The fight against oppression of women and the oppressed classes is not to be done at the level of epistemology but at the level of demolishing existing power structures. It may be believed that power structures lie on a base of knowledge but this is to oversimplify the issue.

Conclusion

The three papers in *EPW* try to argue that postmodernism is essentially a flawed discourse and appeal to us to see the 'obvious' power of scientific epistemology. Nanda goes further and claims that postmodernism and postcolonialism generate and consolidate fascist tendencies in our society. She claims this by arguing against alternate epistemologies as on par with the scientific one and critiquing the social constructivist theories of knowledge. She also believes that a society which bases itself on scientific epistemology will eradicate oppression and irrational beliefs in gods and djinns. Her vision for our society seems to be that if we all accept the epistemology of science then our society will be a far better place to live in.

The flaws in these positions have been set out in detail. In particular, the problem of trying to use scientific methodology across inapplicable domains and the question concerning the link between scientific epistemology and social action were highlighted. I have also argued that there are no such neat pictures of epistemology available to us, including in science. Science is not a homogeneous creature. Epistemology is just one part of scientific activity. Science is also distinguished by an ontological domain which is also of importance in any cross-systemic understanding of knowledge systems.

Arguments regarding the superiority of one epistemological system over another without finding a common epistemological basis are doomed to failure. They invariably take recourse to ideological positions in order to uphold one epistemological system over another, like the repeated charge of fascism in Nanda's paper. To effectively understand this debate is to begin at the level of discourse formation, both for science and non-science. This will dilute the excessive importance given to epistemology. This will also allow for common points of agreement and disagreement. There is enough ammunition in such a discursive study to critique naive social constructivist positions even as it allows ways to enter the scientific discourse in order to loosen its hold on itself. This is possible only through postmodernism because as a discourse it is the one which has found voices to speak about discourses, including a self-reflectivity which is very important. Both Sokol and Nanda trivialise postmodernism, essentially equating it with certain strains of social constructivism, in order to re-stake their leftist agenda. All that they say could have been said from the vantage point of the leftist ideology without invoking the superiority of the scientific epistemology at all.

Notes

[I thank Dhanwanti Nayak for her critical response to this piece and for continued discussions on this subject.]

1 Unfortunately, almost all the examples given by Sokol and Nanda are statements taken out of their systemic context. Their arguments also use another technique: to choose the most exaggerated statements of a discourse to condemn the discourse itself. This is also a worrisome way of arguing Since their position is to show the 'emptiness' of postmodernism *vis-a-vis* science, we must look to see whether we would like to understand science only through hyperbolic statements. All discourses, including the scientific one, use hyperboles, metaphors and ample use of universal quantifiers. So one must tread with care when choosing certain provocative statements to pass a judgment on the discourse itself for it may rebound with as much ferocity.

2 Thanks to the inculcation of science and state support, the 'best' students in India, at least a disproportionate amount of them, have shifted to studying science subjects. The impact of this shift is felt by teachers in humanities today. Their constant refrain has been: 'we get so few good students in humanities'. Unfortunately for Nanda, even though the quantum of scientific temper must have increased the social problems have not correspondingly decreased. The only way out of this dilemma is to invoke a new ghost – that of postmodernism.

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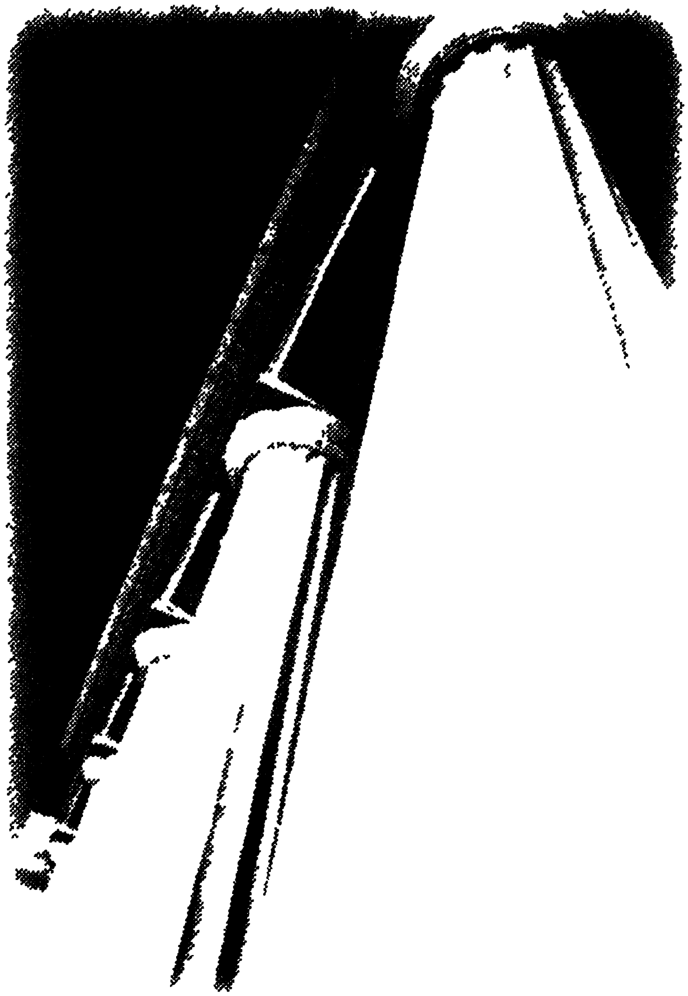

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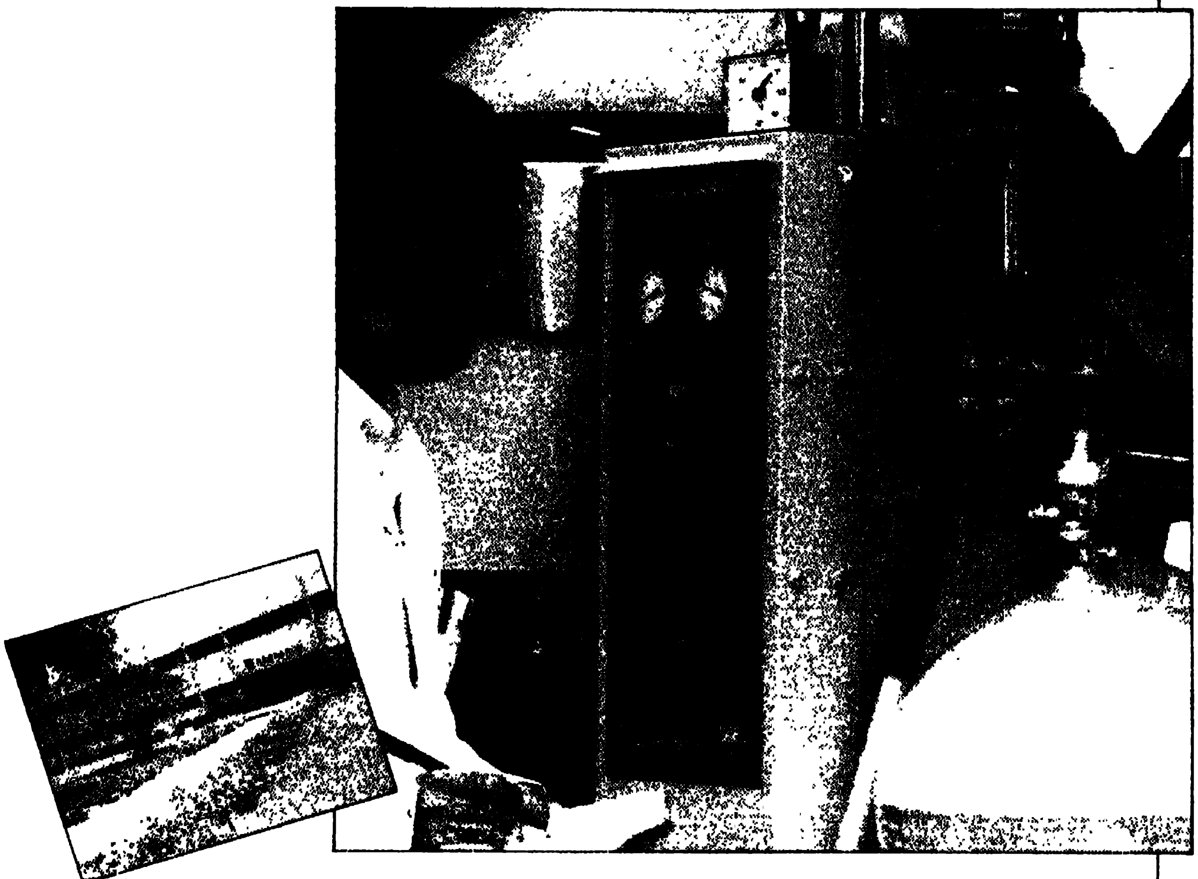

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Competitive Populism and Subsidies

An examination of the nature of subsidies in Tamil Nadu and the causes and consequences of their growth brings out how the competitive populism of political parties has led to a distortion of the subsidy system in India. Besides the statistics, qualitative evidence too shows that the subsidy system in Tamil Nadu is wasteful, corrupt, regressive and counterproductive. 811

Dalit Strategy in UP

After establishing its monopoly over dalit votes, especially among the numerically large jatavs and pasis, the Bahujan Samaj Party is trying to turn the electoral arithmetic in UP in its favour by wooing the upper castes who are no longer in direct conflict with the dalits because of the structural changes in the rural areas. 822

Union Budget and Industry

A close examination of the union budget for 1999-2000 suggests that the budget's impact on industrial growth during the year will be more through its proposals which relate indirectly to the industrial sector as a whole or to specific sub-sectors than through measures more directly calculated to stimulate industry. 827

Serbian Hegemony and Yugoslav Break-Up

The tenacity of ethnicity and finely differentiated versions of South Slav nationalism, sharpened by frequent foreign domination of the region in the past, defeated Tito's federative design as well as international efforts, through threats of withholding of credits and non-recognition of secessionist republics, to save Yugoslavia from Balkanisation. Serbian domination of state power, unwarranted by population size or economic strength, has provoked assertion of non-Serbian ethnic identities. 833

Dictated Agenda.

Study of non-Bengali writing in Bengal exposes the bias in the way the Bengali 'bhadralok' have implicitly set the norms for other communities, such as the Calcutta marwaris, whose lives are shaped by ideologies quite different from those that matter to their socially-distant Bengali neighbours. 804

Rights Denied

The beginning of the Kashmir problem as well as its aggravation over the years can be traced to the denial to the people of the state of civil liberties and democratic rights including the right to freedom of speech, to protest and form opposition parties and to vote and form a government of their choice. 794

Kols Dispossessed

Evicted from their ancestral lands by the British and in the post-independence period swindled by government officials and local politicians, the Kols of Mirzapur district of UP, once a self-sufficient tribe, are being pushed into a situation of perpetual dependency. 798

Banking Reforms

The flip side of banking sector reforms has been the over-emphasis on profits and the neglect of the distributive role of banks. 797

BJP Games

Even as storms gather around them, the ostriches in the BJP-led government bury their heads in the sands. Worse, they make clear their utterly cynical attitude towards governance. 796

Resilient Microfinance

The impact of the 1998 floods, the worst ever to hit the country, on Bangladesh's critical microfinance sector needs to be analysed at three levels: the client and the household, the individual microfinance provider and the overall microfinance industry. 801

National Income

An explanatory note on the methodology of the CSO's new national income estimates and tables presenting the new data series, together with the comparable earlier estimates to bring out the significance of the revisions. 841

Bihar: Emerging Forces

YOUR correspondent's editorial comment (February 6-12) expressing a need for unified retaliation against the Ranvir Sena (RS) by the naxalite groups is to be appreciated. The comment that the earlier "landlord armies...had to beat a hasty retreat in the face of the armed resistance of the naxalite groups", is also well taken. Yet, the approach that 'internecine clashes' are a major cause for the rise of the RS displays a lack of knowledge of the ground realities in Bihar. Some facts may help give a clear picture.

First, the two remaining naxalite groups in the region – the erstwhile Party Unity (PU, now PWG) and MCC – have been attempting to strike back in their own ways. After Narayanpur, the PWG struck twice at some chief RS rowdies, while the MCC struck with a mass massacre of bhumihars. The ex-naxalite group, Liberation, has been relatively quiet. After the Arwal massacre, the Liberation and PU, during 1985-86, jointly organised mass protest campaigns. But when the Liberation drifted into parliamentarism it backed out of the anti-Arwal Front in a bid to gain parliamentary respectability. Later, the rise of the RS, which had made Bhojpur its breeding ground, was facilitated by the inertia of the Liberation group. For two years, 1994 to 1996, despite the killings of Liberation supporters, there was no effective counter to the RS's growth. This emboldened the Sena further which, from the end of 1996, began spreading to neighbouring Jehanabad, the centre of PU's activity. After one or two RS actions the PU immediately hit back. Besides a big campaign against the RS (which was viciously attacked by the police), throughout 1997 the PU eliminated 22 RS elements in four separate actions. In 1998, too, it kept up the pressure. But the RS, relatively secure in Bhojpur, used that as a launching pad for further attacks.

What needs to be appreciated here is that the RS is qualitatively different from the "earlier landlord armies". The two cannot be compared. While the earlier formations were caste-based and amateurish, the RS has the support of most caste landlords, has strong political backing, and has been equipped with vast funds and sophisticated weaponry. They have been trained by local army officers, who took leave for the purpose. They are a ruthless, cruel and large (relative to the earlier formations) mercenary force. It is not that easy to fight it. The earlier senas were smashed, even though, at that time, the naxalites were divided. Quite naturally, to take on such a ruthless force (backed fully by the state machinery), Liberation's non-retaliatory parliamentary tactics have been rather insufficient. Though the PU/PWG and MCC have been striking back, the defeat of the Sena may take quite some time. So, the prime factor for the rise of the Sena is state backing, and the inter-naxalite clashes can only be secondary. That, the latter exists, is not disputed. It is, in fact, very unfortunate; but is secondary to the issue under discussion. The PU, it appears, has time and again tried to resolve the problem, but the MCC has continued its aggressive posture killing a large number of PU supporters. Hopefully, the present merger with the PWG may help settle the issue, as the PWG has experience in settling similar conflicts in AP over a decade ago. Yet, the battle with the landlord/government mafia is necessarily a long drawn-out one.

VASANT KALE

Chennai

Kamani Experiment

E A RAMASWAMY'S in-depth analysis of workers' co-operatives (January 30) is a subject that has much wider application in India. He has rightly pointed out that in the initial euphoria, workers guided (misguided?) by their leaders, to seek short-term gains, form co-operatives to manage an organisation, as in the case of Kamani. That management is a science with its complex functions and responsibilities is not at all understood when such co-operatives are formed. Without going much further into the details of workers' co-operatives (of which I am a strong supporter), the main purpose of this letter is to draw a comparison of the attitude o non-governmental organisations (NGOs which have similar approach to managin their organisations.

In over 15 years of my association wit NGOs in India, I have come to realise tha as long as funds are given as grants b the government or donor agencies, th organisations set up for achieving socio economic benefits, function effectively After all, there is a limit to grants extende by the government or donor agencie Grants, of course, initially cause som social changes, but economic succes which ensures sustainability and long-term social development calls for applicatio of management concepts. Economic success, undoubtedly, requires risks to b taken. Also, the decision-making, the cor of management practices, cannot be veste with an unwieldy group. The line o command is essential and accountabilit at every level of production is important However dedicated the individuals ma be, if everyone attempts to impose his/he concepts, objective management is im possible. Above all, groups owing allegiance to political parties attempt to tak control of the organisation, which mean that the objectives of the organisation wil be subservient. With the phenomena growth of socio-economic problems bot in urban and rural areas, NGOs have a important role to play. It is all right t depend upon grants only for welfar activities such as public health and education, but socio-economic projects mus be approached with a different attitude t ensure economic sustainability and consequently a long-term social development

K S RAMAMURTH

Tamil Nadu

Tax Reform Debacle

THE efforts which have been going on for the last five years to reform the diverse systems of sales taxation operating in the different states and to replace them with a Value Added Tax(VAT) have been dealt a mortal blow. Maharashtra, the only state which had dared to go the whole hog towards introduction of VAT, has abandoned the reform path and decided to return to the beaten track of a sales tax laced with a turnover tax and a surcharge on 'gross tax'.

Moves to replace the states' sales taxes and switch over to VAT were initiated in 1994 as part of the economic reforms launched in 1991. The system of sales taxation that had evolved over the years was perceived to be a major impediment to efficiency in resource use and to the growth of a national common market which is among India's greatest potential economic strengths. With over 20 different legislations each following its own pattern and with a multiplicity of levies and rates and little co-ordination, our sales tax system had earned the dubious distinction of being the most complex and irrational in the world. Revenuewise also the system had ceased to be productive, as buoyancy had dropped below unity in practically all states, thanks to the internecine rate wars and competitive bids on the part of all the states to attract trade and industry to their respective territories through generous tax holidays. In a protected market and with the bounty of a central law that gave them the power to tax interstate sales – something not permitted in mature federations such as the US and Canada – the states have got into the habit of exporting their taxes and obtaining a good part of their revenue by taxing residents of other states and thereby encroaching on each other's tax space, negating the federal principle.

The only way to remove these inefficiencies and distortions and bring some rationality in the states' taxation was to move towards a VAT such as has been in vogue in many countries, including in federations and economic unions, whereby the tax incidence falls on consumption instead of production and tax revenue goes to the unit where the taxed goods are finally consumed, the point of destination. Based on a model drawn up in consultation with state tax administrators and taking account of the deliberations of a committee of chief ministers and finance ministers, a tentative programme of reform was drawn up over 1995 and 1996, first to harmonise the states' sales tax systems and eventually to move to VAT. Although the much-needed abolition of the tax on interstate sales was virtually shelved, for fear of immediate revenue loss, the rest of reform programme would, if implemented, still mark a significant improvement over the debilitating system that had been operating so long. However, in the absence of a binding agreement the programme did not really get off the ground, though there was some move to reduce the number of tax rates in several states. Some went through the motions of introducing VAT by selecting a few commodities for taxing the value added in trading, but abandoned the effort as unfruitful, the principal examples being Kerala and Tamil Nadu.

Maharashtra was the only state that made a serious attempt to replace its sales tax with VAT. Beginning in 1995 with a high threshold, it inserted two new sections in the existing law that almost transformed its sales tax into a full-fledged VAT, subject of course to the limitations that any state would face when going it alone. Initially it operated both the methods used in VAT, the credit method for inputs used in industry and the subtraction method for traders. The aim was to move eventually to the standard credit method along with a wide base, easing out the tax holidays and other concessions. Though revenue suffered a setback in the initial years, the state government courageously persisted as industry clearly benefited. Manufacturing cost in several industries, particularly automobiles, registered a significant decline. Opposition to the change was also contained as the high threshold helped to keep down the number of dealers coming within the tax net to less than 10,000 initially and possibly not more than 50,000 or at the most 1,00,000 even with the gradual lowering of the threshold. After the inevitable teething troubles Maharashtra seemed well set to act as a model for the other states.

Scrapping of the VAT by the Maharashtra finance minister in his budget for the current year has thus come as a shock and a serious setback to the effort that has been going on to introduce a less distortionary trade tax system in the country. The grounds advanced by the state finance minister for the government's decision mentioned the difficulties taxpayers were experiencing in complying with the requirements of the new system and the unhappy experience of Kerala and Tamil Nadu. While in Kerala and Tamil Nadu VAT is little better than a caricature of what it is meant to be, the reference to traders' difficulties is baffling since one of the strengths of Maharashtra's VAT lay in the care that had been taken, through a high exemption limit, to keep out small- and even medium-sized traders. Revenue stagnation, on the other hand, may have been a real problem. But how much that had to do with the shortcomings of the tax and to what extent it was a reflection of the recession in the Indian economy is a moot point. Undeniably, the state did face handicaps in recouping the revenue forgone through the tax credits by unilaterally adjusting upward the rates on final products because of competitive rate-cutting by neighbouring states and the

restrictions on the level of tax on the so-called 'declared goods' flowing from the rule embedded in the Central Sales Tax Act, a central enactment. It is not known whether any request had been made by the Maharashtra government to the centre for help in getting the restrictions removed or for assistance in tiding over the adjustment period. From all appearances, the centre remained a disinterested spectator. Be that as it may, the development will gladden the hearts of those who have been opposed to VAT, regarding it as an imposition from the centre. The demand will now be made more insistently for the 'consignment tax' without which, it has been claimed, the states' tax revenues have been suffering grievously. But that would be the final blow against a national common market in the country.

To those working towards a rational tax system to prepare the country for the new millennium, the debacle in Maharashtra cannot but be a matter of deep disappointment. The emergence of VAT as a major instrument of taxation has been the most significant development in the evolution of tax structures across the world in the last 50 years. VAT now operates as the main consumption tax in some 105 industrial and developing countries. It is not just fashion that has set this trend. VAT scores over other forms of indirect taxation in many important ways. A well-designed VAT is a reliable revenue raiser entailing less cost than its rivals. It has the merit of neutrality in the matter of economic choices such as location and form and method of doing business and thus encourages efficiency. What is more, it strengthens domestic industry in competing globally by minimising the possibility of cascading inherent in turnover-type sales taxes and freeing exports from taxes levied at earlier stages of production and sale while extending equal treatment to imports and local products. In other words, it has attributes that are important in an increasingly integrating, competitive world. It is not for nothing that the European Union requires adoption of destination-type VAT as a precondition for membership, even though this means some surrender of fiscal autonomy on the part of sovereign nations.

All this notwithstanding, it is not altogether surprising that the Maharashtra government has chosen to go back on what little progress had been made in the direction of fiscal reform. Policy-making in this country is finally in the hands of people who rarely have the time or inclination to acquire the degree of understanding needed to cope with the technical issues that often come up in many fields including taxation. An important factor in the present debacle has been the centre's passivity. It is now abundantly clear that it is not possible for VAT to operate successfully at the sub-national level without the active involvement of the centre. But where is the time for the central government and its officials dealing with tax policy to involve themselves constructively in what goes on in the states? Why stir up a hornet's nest by poking a finger in an area that the states regard as their preserve? So while sovereign nations in other parts of the world come together to harmonise their tax systems and agree to desist from taxing citizens of other nations to reap the advantages of larger common markets, we in India revel in clinging to our old ways, however damaging they may be to the present and future generations. The fact of the matter is that, the limited vision of the regime currently in office in the state apart, Maharashtra did not get the support it deserved from the centre in its bold endeavour. But who cares?

POLITICS

Preparing for the Inevitable

THE BJP national executive committee meeting at Goa looks like a dress rehearsal for the electoral propaganda that the party might have to launch if it loses power at the centre and has to face another round of polls in the near future.

The main objective of the resolutions adopted at the meeting is to isolate the Congress and the opposition and warn its own unreliable allies of the consequences they will have to face if they desert the BJP. The BJP hopes that the three 'B's – the (nuclear) Bomb, the Bus (journey to Pakistan) and the Budget – will help it to win a popular mandate. In order to counter the opposition charges of administrative irregularity on the issue of the ex-naval chief's dismissal, it is raising the bogey of national security in order to defend its opposition to a parliamentary probe into the matter. As for the allegations of financial wrongdoing levelled by Mohan Guruswamy, it hopes to put the opposition, and the Congress in particular, on the defensive by resurrecting the Bofors issue. The BJP is also making the most of the Congress opposition to the imposition of president's rule in Bihar and projecting the Congress as an anti-dalit party, thereby hoping to gain the votes of the depressed castes. Regarding the immediate threat posed by Jayalalitha, the BJP is working out a strategy to offset her withdrawal of support by winning over a few fringe groups (like Kanshi Ram's BSP) in the Lok Sabha. This explains home minister Advani's claim that "even if the ruling coalition is reduced to a minority, it will continue to rule the country", and the prime minister's bravado at the Gaya meeting that he was confident of 'managing the numbers'.

But despite the brave face being put up by BJP stalwarts, things are not all that hunky-dory in their own backyard. While they may have succeeded in cajoling disgruntled allies like Mamata Banerjee, they are facing threats from their own party people and comrades in the Sangh 'parivar' have already shattered the myth about the BJP being a highly disciplined party. Close on the heels of the resignation of one-time BJP ideologue Guruswamy and his allegations of corruption against the finance minister has erupted another crisis. In Uttar Pradesh, following the resignation of a minister from the BJP government in the state, a large group of BJP legislators have raised the banner of revolt against chief minister Kalyan Singh and demanded his resignation. And, although the 'swadeshi' lobby did not make much noise at the Goa meeting, it is still quite active in its campaign against the economic policies of the government. Besides, those members of the BJP who are active in the RSS, VHP, Bajrang Dal and similar outfits are on the war path determined to build the Ram Janmabhoomi temple.

The BJP is increasingly becoming a schizophrenic organisation split into factions which are divided by personal loyalties, ego clashes, power hunger, different perceptions of tactics and conflicts on the economic perspective. How are the BJP leaders going to resolve these growing internal contradictions? The Goa meeting of its national executive failed to address this critical question and ended up instead as an exercise in chalking out a fire-fighting programme to cling to power as long as possible, and an electoral strategy to face the voters when this becomes necessary.

MEDICAL EDUCATION

Extreme Close-up

THE MBBS marks scandal, as the newspapers are dubbing it, in Mumbai University is now at a stage when the fundamental issues which have been raised will be all but forgotten. The governor, also the chancellor of the university, has issued a show-cause notice to the vice-chancellor,

Snehalata Deshmukh, asking for an explanation for the award of some eight grace marks to students in the paper on preventive and social medicine (PSM) after declaration of the results. As may be recalled, the 64 students of the final MBBS course had petitioned the vice-chancellor to award grace marks in the PSM paper, which they claimed had been a difficult one, so that they could secure passing marks in that paper. The petition was granted, but later investigations have posed several issues: that according to relevant statutes grace marks cannot be granted after the results of the examination concerned have been declared; that if the paper was 'difficult' the students ought to have petitioned the right authorities immediately after the examination and not after the results had been declared; and, most importantly, that the 'difficult' paper does not appear to have contained any question which may be construed as being beyond the comprehension of an MBBS student.

The issue has since snowballed, with the Maharashtra Medical Council appointing an independent inquiry and holding the act of the vice-chancellor untenable and contravening of the statutes. The result has been to bring about a confrontation – with students protesting and the issue being raised in the state assembly – which does not portend well for medical education in the city. The governor's show-cause notice is the culmination of all these developments. And now the Akhil Bharatiya Vidyarthi Parishad has claimed that the governor's notice to the vice-chancellor amounts to interference in the autonomy of the university.

It is indeed a pity that so much attention should have been focused on this issue when there are so many other urgent matters pertaining to higher education in the city and the state which need to be resolved. It should be clear to the government now that creating an independent university of health sciences to which all medical colleges in the state will be affiliated will involve more than just the passing of legislation. Not only will the relative responsibilities and authority of the state medical council need to be defined more clearly, but the problems of affiliating to the university of far-flung colleges should be evident. At another level, many recent reports have brought out that fraudulent degree-holders are practising as doctors. This is evidence of laxity on the part of the medical council. It should be noted that the state medical council has until recently been a moribund body doing little to either monitor medical practice or to enforce legislation with regard to the quality of education in medical colleges. That it has become so active on the issue of the marks scandal is commendable, but rather surprising. The logical follow-up should be for it to set up a review of the process by which a student is declared as having graduated – that is, the process of evaluation in the medical education system. But there seems to be little indication of any such move.

Unfortunately, and perhaps inevitably, the MBBS marks scandal while it has exposed deficiencies in the system has also become an issue which is being taken up in the corridors of political power rather than evoke institutional/academic concerns. With the show-cause notice, the issue has now been relegated to merely a matter of interpretation of a rule.

ALL-INDIA RADIO

More of the Same

A correspondent writes:

THE winds of liberalisation have blown nothing new in the All-India Radio network, judging from the report of the standing committee of parliament on communications on the working of AIR. AIR routinely falls short of its targets. It gives lack of funds as one of the reasons for this. Yet, during the Eighth Plan, it utilised only Rs 657 crore of the allocation of Rs 835 crore. In 1997-98 as well only 62 per cent of allocated funds were spent. In spite of this, the parliamentary committee approves of the proposal to levy a licence fee on stereo radio to raise revenue.

Non-availability of staff is another reason cited. AIR's training centres are in bad shape: some of them without buildings or staff, without any studio or technical equipment and without hostels. Two large centres, though commissioned, are not functioning for want of teaching staff. AIR does nothing to assess the utility of training imparted to its staff. But it has invited the Thomson Foundation of the UK to run a training programme for its staff.

Undaunted by these problems, AIR thinks big. Where a private entrepreneur may start with one station, and having made a success of it, learning from mistakes, take up the next one, AIR took up 23 radio stations in the north-eastern states. Only five of these have been completed. Seven were dropped/deferred due to financial constraints and 11 are delayed. But worse, the five completed stations have not been commissioned – one due to law and order problems and four due to delay in staff selection.

The parliamentary committee worries that this will exacerbate "the feeling among the people of north-east that they are being neglected". But perhaps the north-easterners, like most Indians, know that bungling is a way of life at government organisations and that they have received no more than their share of 'sarkari' inefficiency.

AIR also thinks big when it comes to promoting new talent. Normally new talent would be trained and then used to improve existing stations, and old experienced hands would be used to make a new channel successful. Not so at the AIR. It has an entire new channel, the Yuva (Youth) Channel, purportedly to encourage new talent. Is it possible that AIR's other channels are saturated with talent? It is not surprising, then, that in the Eighth Plan funds sanctioned for commissioned programmes were not utilised and had to be surrendered.

AIR's idea of talent and quality of programming may be gauged from the nature of its programme advisory committees. Their composition requires that there be at least one member representing 16 listed discipline/interest groups among which one finds '(xv) Humour'. Its idea of listeners is equally cheerless. Listeners are not a market, not intelligent people with their own views and choices. They are beneficiaries. The committee says of FM transmitters that people "falling within this range are benefited by them". Can we visualise these people, ears cocked, mouths agape, waiting for benefits to fall from the AIR?

The parliamentary committee is ambivalent about FM channels. It does not like that private broadcasters are allowed to "propagate pop and western music that has nothing to do with Indian ethos/culture". It recommends that guidelines should be framed for private broadcasters. But since FM channels can earn revenues up to Rs 30,000 to Rs 35,000 per hour, it wants more FM stations to be commissioned. This is the familiar idea that the private sector should make profits so that the government sector can both earn revenue and disapprove of the activity which generated that revenue.

Talk of liberalisation notwithstanding, AIR remains bureaucratic and unimaginative. And the elected representatives of the people serving on the standing committee of parliament do not recommend any different.

CURRENT STATISTICS

EPW Research Foundation

RBI's signals of a lower interest rates regime have been reflected in major public sector banks and FIs reducing their PLRs to the lowest ever levels of 12-13 per cent. Anticipating a further fall in interest rates, FIIs have started investing in rupee-denominated debt. In March alone they bought debt securities worth $36.2 mn, after having been net sellers to the tune of $175 mn in the whole of 1998. Renewed interest by FIIs in the equity market as well led to investment worth $51.8 mn in March against disinvestment of $163 mn in the whole of 1998. These combined with reported increases in FDI augmented foreign currency assets by $828 mn in March.

Macroeconomic Indicators

Index Numbers of Wholesale Prices (1981-82 = 100)	Weights	March 20, 1999	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
All Commodities	100.00	353.7	-0.1	5.0	5.2	4.9	5.3	5.3	6.9	5.0	10.4
Primary Articles	32.30	380.0	-0.5	9.2	5.4	9.3	5.6	5.5	7.0	5.4	12.7
Food Articles	17.39	438.9	neg	11.4	4.3	11.6	4.2	4.0	9.6	9.8	11.9
Non-Food Articles	10.08	383.7	-1.6	7.9	7.7	7.7	8.2	8.5	3.5	-1.9	15.5
Fuel, Power, Light and Lubricants	10.66	379.5	0.9	-1.2	11.4	-1.2	11.4	11.4	16.9	3.7	2.4
Manufactured Products	57.04	333.9	-0.1	3.7	3.9	3.6	3.9	4.0	4.9	5.0	10.7
Food Products	10.14	341.0	-0.2	5.8	4.0	4.7	4.3	5.5	14.1	-0.7	8.1
Food Index (computed)	27.53	402.8	-0.1	9.6	4.2	9.3	4.2	4.5	11.1	6.3	10.6
All Commodities (Average Basis) (April 4, 1998 - March 20, 1999)	100.00	352.3	-	6.9	4.8	6.9	4.8	4.8	6.4	7.8	10.9

Cost of Living Indices	Latest Month	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
Industrial Workers (1982=100)	420.0[1]	-2.1	9.4	9.7	10.5	9.4	8.3	10.0	8.9	9.7
Urban Non-Man Emp (1984-85=100)	340.0[2]	-0.6	8.6	7.6	9.0	7.6	7.2	10.2	8.2	9.9
Agri Lab (1986-87=100) (Link factor 5.89)	297.0[2]	-0.7	8.8	3.8	9.2	4.2	3.8	10.5	7.2	11.1

Money and Banking (Rs crore)	March 12, 1999	Variation: Over Month	Over Year	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96
Money Supply (M_3)	953723@	9600(1.0)	149772(18.6)@	128333(15.5)@	102103(14.5)	123451(17.6)	97841(16.2)	72581(13.7)
Currency with Public	173232	3028(1.8)	23416(15.6)	28050(19.3)	17729(13.4)	13095(9.9)	13829(11.7)	17577(17.5)
Deposit with Banks	777649@	6825(0.9)	125940(19.3)@	101047(14.9)@	85142(15.0)	110036(19.4)	84162(17.5)	55042(12.9)
Net Bank Credit to Govt	387732	1060(0.3)	60053(18.3)	57113(17.3)	39060(13.5)	42000(14.6)	30840(12.0)	35360(15.9)
Bank Credit to Comml Sector	468669	5006(1.1)	48136(11.4)	36479(8.4)	44225(11.8)	55883(14.9)	31659(9.2)	51925(17.7)
Net Foreign Exchange Assets	1413801	890(0.6)	21229(17.6)	15231(12.0)	15075(14.3)	21072(20.0)	23356(28.4)	3109(3.9)
Reserve Money (March 19)	256108	4933(2.0)	36874(16.8)	29875(13.2)	19249(9.6)	26248(13.1)	5527(2.8)	25176(14.9)
Net RBI Credit to Centre	150366	-2403(-1.6)	18373(13.9)	16749(12.5)	11290(9.4)	12915(10.7)	1934(1.6)	19855(20.1)
RBI Credit to Bks/Comm Sector	27216	3567(15.1)	13099 (92.8)	11934 (78.1)	865(6.5)	2029(15.3)	-15557(-54.0)	8747(43.6)
Scheduled Commercial Banks (March 12)								
Deposits	698338@	6620(1.0)	115190(19.8)@	92928(15.3)@	77549(15.3)	99811(19.7)	71780(16.5)	46960(12.1)
Advances	354742	4992(1.4)	41763(13.3)	30663(9.5)	34579(12.4)	45677(16.4)	24386(9.6)	42455(20.1)
Non-Food Advances	338011	5374(1.6)	37366(12.4)	26417(8.5)	29840(11.0)	40790(15.1)	26580(10.9)	44938(22.5)
Investments (for SLR purposes)	251966	2298(0.9)	37955(17.7)	33261(15.2)	23498(12.3)	28192(14.8)	25731(15.6)	15529(10.4)
Commercial Investments	48072	1195(2.5)	16028(50.0)	16161(50.6)	13560(73.4)	13673(70.4)	4412(29.4)	925(6.6)

@ Includes Rs 17,945 crore on account of proceeds from RIBs, since August 28, 1998; excluding them the year-on-year and the 1998-99 fiscal year growth of money supply would be 16.4 per cent and 13.4 per cent respectively. Likewise, bank deposits without RIBs grew by 16.7 per cent and 12.4 per cent, respectively.

Index Numbers of Industrial Production (1993-94=100)	Weights	December 1998	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Full Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
General Index	100.00	150.0	139.2(3.5)	134.5(6.7)	137.6(6.6)	129.0(5.5)	122.3(12.8)	108.4(8.4)
Mining and Quarrying	10.47	127.0	117.3(-1.1)	118.6(5.5)	122.4(5.9)	115.6(-2.0)	117.9(9.6)	107.6(7.6)
Manufacturing	79.36	154.0	142.6(3.7)	137.5(6.9)	140.5(6.7)	131.8(6.7)	123.5(13.8)	108.5(8.5)
Electricity	10.17	142.4	135.8(6.6)	127.4(6.0)	130.0(6.7)	121.9(3.9)	117.3(8.1)	108.5(8.5)

Capital Market	April 1, 1999	Month Ago	Year Ago	1999-2000 So Far: Trough	1999-2000 So Far: Peak	1998-99: Trough	1998-99: Peak	End of Fiscal Year: 1998-99	1997-98	1996-97
BSE Sensitive Index (1978-79=100)	3686(-7.1)	3524	3970(15.8)	3686	3686	2783	4281	3740(-3.9)	3893(15.8)	3361(-0.2)
BSE-100 (1983-84=100)	1634(-5.7)	1560	1732(16.3)	1634	1634	1242	1890	1651(-2.7)	1697(15.9)	1464(-5.5)
BSE-200 (1989-90=100)	376(-2.3)	358	385(15.6)	376	376	289	429	380(0.8)	377(14.9)	328(-5.0)
S and P CNX-50 (Nov 3, 1995=1000)	1063(-7.5)	1016	1150(18.6)	1063	1063	812	1213	1078(-3.5)	1117(15.4)	968
Skindia GDR Index (Jan 2, 1995=1000)	655(-31.7)	657	958	655	655	515	1015	653(-30.5)	940(1.1)	930(-4.4)

Foreign Trade	January 1999	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
Exports: Rs crore	12130	114045(10.1)	103597(7.4)	126286(6.3)	118817(11.7)	106353(28.6)	82674(18.5)
US $ mn	2854	27111(-3.7)	28158(3.4)	33980(2.6)	33470(5.3)	31797(20.8)	26330(18.4)
Imports: Rs crore	14263	146774(18.4)	123964(11.0)	151554(9.1)	138920(13.2)	122678(36.3)	89971(23.1)
US $ mn	3356	34892(3.6)	33694(6.9)	40779(5.8)	39132(6.7)	36678(28.0)	28654(22.9)
Non-POL US $ mn	2874	29991(10.5)	27137(14.7)	32562(11.9)	29096(-0.2)	29152(28.3)	22727(29.5)
Balance of Trade: Rs crore	-2133	-32729	-20367	-25268	-20102	-16325	-7297
US $ mn	-502	-7780	-5536	-6799	-5663	-4881	-2324

Foreign Exchange Reserves (excluding gold)	March 26, 1999	March 27, 1998	March 31, 1998	Variation Over: Month Ago	Year Ago	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95	1993-94
Rs crore	121150	100042	102511	3054	21108	18639	19667	22136	21649	-7302	18402	27430
US $ mn	28615	25367	25976	828	3248	2639	2998	3607	5243	-3690	5640	8724

Notes: (i) Superscript numeral denotes month to which figure relates, e g, superscript 1 stands for January. (ii) Figures in brackets are percentage variations over the specified or over the comparable period of the previous year na. not available neg: negligible * unchanged

Money Market Rates of Interest

(Per cent per annum)

Weekended Fridays / Instruments	March 1999 26	19(RF)	12	5(RF)	February 1999 26	19(RF)	12	5(RF)	March 1998 27(RF)	20	13(RF)$	6
Bank rate	8.00	8.00	8.00	8.00	9.00	9.00	9.00	9.00	10.50	10.50	11.00	11.00
RBI Fixed Repo Rate	6.00	6.00	6.00	6.00	8.00	8.00	8.00	8.00	8.00	8.00	9.00	9.00
Call money rate (Range weekly)	na	7.60-11.25	7.00-8.50	7.50-9.35	7.15-9.75	8.75-9.50	7.00-9.60	8.65-9.40	7.00-8.25	8.00-9.75	7.50-10.25	7.00-9.35
Prime Lending Rates Banks												
(Major Public Sector)	12.00-13.00	12.00-13.00	12.00-13.00	12.00-13.00	12.75-13.00	12.75-13.00	12.75-13.00	12.75-13.00	14.00	14.00	14.00	14.00
IDBI	13.50	13.50	13.50	13.50	14.00	14.00	14.00	14.00	14.50	14.50	14.50	14.50
ICICI	13.00-13.50	13.00-13.50	13.00-13.50	13.00-13.50	13.50-14.00	13.50-14.00	13.50-14.00	13.50-14.00	14.00-14.50	14.00-14.50	14.00-14.50	14.00-14.50
IFCI	12.50-13.50	12.50-13.50	12.50-13.50	12.50-13.50	13.00-14.00	13.00-14.00	13.00-14.00	13.00-14.00	13.50-14.50	13.50-14.50	13.50-14.50	13.50-14.50
Treasury Bills												
14-Day (RBI Auction) Primary	7.82	7.82	7.82	8.35	9.39	9.13	9.39	9.13	7.30	7.30	7.30	7.30
91-Day (RBI Auction) Primary	8.75	8.75	8.75	8.79	9.54	9.54	9.54	9.37	7.33	7.33	7.33	7.33
Secondary DFHI (mid-point of bid and offer)	7.78			9.47	9.29	9.15	9.10	9.05				..
All SGL trading (Weighted YTM)	8.33	8.91	7.59	8.55	8.81	8.89	8.75	8.92	9.01	8.97	8.84	8.88
364-Day(RBI Auction)												
Primary	10.07	*	10.07	*	10.62	*	10.45	*	7.98	*	*	*
Secondary DFHI (mid-point)	9.98	9.97	9.94	10.17	10.40	10.39	10.37	10.37	9.60	10.44	10.87	10.88
All SGL trading (Weighted YTM)	9.90	9.93	9.87	10.18	10.31	9.34	9.31	8.54	8.91	10.42	11.19	11.42
State Govt loans (Coupon rates)	*	*	*	*	*	*	*	12.50 10-year on tap	*	*	*	*
All SGL trading (Weighted YTM)	12.20	12.29	12.31	12.37	12.17	12.10	12.24	12.14	12.09	12.30	12.34€	12.44
GOI Securities Primary Auctions	*	*	*	*	*	*	*	*	*	*	*	*
Secondary All SGL trading (Weighted YTM)	11.37	11.36	11.53	11.33	11.71	11.37	11.35	11.70	11.67	11.64	11.90	12.01
PSU Bonds yield -												
Tax free NSE (traded, weighted)	9.19	8.90	9.06	8.55	9.16	9.20	8.99	9.33	10.47	11.01	11.06	11.26
NSE (Range weekly)	9.07-9.46	8.60-10.15	9.03-9.13	8.44-9.88	8.72-9.72	8.71-9.37	8.29-10.07	9.25-9.68	10.59-10.96	10.66-11.07	10.62-11.18	10.62-11.36
Taxable NSE (traded, weighted)	15.00	15.04	14.07		14.76	13.18	14.81	15.77	14.17	14.64	14.11	15.75
NSE (Range weekly)	14.32-15.53	14.39-15.09	13.82-14.88		14.70-14.97	11.65-16.22	13.15-15.63	14.33-16.33	13.13-15.54	13.90-15.49	12.37-16.75	15.40-16.26
CP Primary market (90 days)	10.50-11.00	11.00-11.50	10.20-10.45	10.20-10.45	10.70-10.90	10.75-10.90	10.75-10.90	10.70-10.90	12.50-16.00	10.50-14.00	11.25-15.00	11.25-15.00
Secondary market/NSE	9.80-10.55	9.00-11.10	8.75-10.00	10.05-10.3	10.68-11.12	10.05-10.83	9.78-10.80	9.10-10.75	13.15-13.75			13.1-13.6
CDs Primary market	10.25-10.75	10.70-11.30	9.90-10.15	9.90-10.15	10.40-10.60	10.45-10.65	10.45-10.65	10.30-10.60	12.00-14.00	12.00-14.00	12.75-14.75	12.75-14.75
Inter-corporate deposits (30 days)#	11.25-12.25	10.25-11.25	10.25-11.25	10.25-11.25	10.50-11.50	10.50-11.50	10.50-11.50	10.25-10.75	13.00-15.00	12.75-15.25	12.75-15.25	12.75-15.25
(90 days)	12.00-13.00	11.25-11.75	11.25-11.75	11.25-11.75	11.50-12.00	11.50-12.25	11.50-12.25	11.00-11.50	15.00-17.00	14.25-17.25	14.25-17.25	14.25-17.25
Memorandum Items												
(i) Forward premia on the US dollar in the domestic inter-bank market (annualised in per cent per annum) (Weekly average)@												
Spot/Cash	2.84	7.57	4.94	5.79	3.21	3.65	4.85	4.94	4.91	6.23	6.71	5.55
One-month	7.30	8.41	7.37	7.14	7.17	5.95	5.75	5.23	7.55	8.76	9.82	10.72
Three-month	7.05	7.48	7.06	7.14	7.39	6.71	6.54	6.51	6.80	8.54	10.26	12.36
Six-month	7.06	7.32	7.16	7.41	7.62	7.13	6.90	6.80	7.44	8.66	10.50	12.57
Twelve month	7.38	7.57	7.41	7.69	7.94	7.64	7.38	7.35	7.97	8.79	10.47	12.04
(ii) RBI Reference Rate (Rs./US$)	42.40	42.40	42.43	42.53	42.49	42.44	42.45	42.47	39.50	39.54	39.51	39.48

ICD figures till September 1998 are for a tenor of 60-90 days for Blue Chip and Non-Blue Chip Companies respectively. RF means reporting Friday for fortnightly reporting of conditions of banking business and the fortnight serves as the reserve maintenance period for scheduled commercial banks. @ Based on daily quotations supplied by Mecklai Financial and Commercial Services, Bombay. Weekly averages of inter-bank premia annualised per cent per annum. – no floatation .. no trading * no auction na not available YTM = yield to maturity

BASF INDIA

Growth in Sluggish Market

AFTER witnessing a sluggish performance in 1996-97, BASF India, a leading chemicals multinational, performed well in 1997-98. At a time when most businesses faltered as far as profitability was concerned, this subsidiary of the German giant BASF AG managed to notch up a 11.7 per cent increase in net sales and a 4.4 per cent rise in its bottomline over the previous year. While the company's operating profit improved by 4.9 per cent over the same period, a steep increase in depreciation provision (up 43.1 per cent) was offset by a fall in interest charges (down 35 8 per cent). With earnings per share rising from Rs 10 to Rs 10.5, the company decided to raise the dividend rate from 30 per cent last year to 35 per cent. Book value moved up from Rs 100.4 per share to Rs 107 per share. The company's stock presently quotes at Rs 180 on the Bombay Stock Exchange, discounting its 1997-98 earnings by a comfortable 17.2 times. Encouraged by its performance, BASF India has decided to issue bonus shares in the ratio of one equity share for every two shares held by capitalising a sum of Rs 8.05 crore out of the amount standing to the credit of the company's share premium account.

BASF India is a well diversified chemicals company with a major presence in leather chemicals, crop protection chemicals, plastics, and colours and dispersions. It also has a chemical business providing technical advisory service fee. The company produces as well as markets expandable polystyrene, tanning agents, leather chemicals, and auxiliaries, pesticides, oil and well chemicals. While about 40 per cent of turnover consists of leather chemicals, 27 per cent comes from crop protection chemicals, while a further 20 per cent is brought in by colours and dispersions, and the balance from plastics.

A dark cloud on the horizon, however, has been the company's plastics business which was adversely affected due to depressed domestic market and availability of cheap imports.

BASF India has decided to shelve the implementation of the Rs 20 million Carbendazim FL project due to adverse market conditions. The funds which had been earmarked for this project will reportedly be deployed for future capital expenditure programmes. The company had raised Rs 57.5 crore by way of a rights issue in the ratio of 2:5 at a price of Rs 125 per share to part finance the expansions and new projects at its plants in Mangalore and Thane. Of the Rs 81 crore capital expenditure programme planned during the issue, the company has successfully completed the colours and dispersion projects in Thane and Mangalore respectively. With the commissioning of its new plants, BASF India plans to give a thrust to exports.

For the first quarter of 1998-99, BASF India has further improved its performance. While net sales improved by 17 per cent over the corresponding period last year, operating profit was higher by 16 per cent and net profit increased by 20 per cent over the same period.

GUJARAT ALKALIES & CHEMICALS (GACL)

Market Misjudged

Fluctuating commodity cycles and downslide in the chlor alkali sector saw Gujarat Alkalies & Chemicals (GACL) perform poorly in 1997-98. Ironically, two years ago, the company was at its peak. Encouraged by its performance, it decided to undertake capacity additions to take advantage of healthy price trends. Unfortunately, offtake from key user-industries such as paper, chemicals and fertilisers turned poor and supply soon outstripped demand by nearly 40 per cent. Naturally, the excess supply in the industry soon led to a fall in capacity utilisation of the sector from 78 per cent in 1995-96 to 60 per cent in 1997-98. Domestic price of caustic soda too fell sharply over the same period and the company's sales and profits were adversely affected. The mismatch in demand-supply forced GACL to delay the commissioning of its 350 tonnes per day (tpd) caustic soda unit. Though the company does enjoy an edge over other competitors because of its energy efficient membrane cell technology as also the power back-up it has from the captive power unit only a revival in demand for caustic soda can help it tide over trying circumstances.

While the company's net sales in 1997-98 declined by 17.6 per cent over 1996-97, operating profit fell drastically by 43.4 per cent. A fall in non-operating profit (down 45.8 per cent) and a steep increase in depreciation (up 16.7 per cent) led to a further fall of 97.6 per cent in the company's bottomline which was virtually wiped out. The company skipped dividend.

With power always being a major input in the caustic soda industry, GACL has done well to set up a captive power unit. The company is supplied more than 50 per cent of its power requirements for its Vadodara complex at an economical rate from Gujarat Industries Power Company, which itself was promoted by GACL. Further GACL's 90 MW captive co-generation power plant at Dahej which had been put into trial production in the open cycle mode from November 1997 will make available reliable power at an economical cost. In fact the company has also finalised arrangements with the Gujarat Electricity Board for wheeling of power from Dahej to its Vadodara complex. When the wheeling commences, the Vadodara complex will also have the benefit of low cost captive power generation and will become self-reliant for its power requirements.

Meanwhile, the company's 350 tpd caustic soda unit, which was reportedly intentionally delayed due to market conditions, has been completed and trial production commenced in February 1998. The caustic-chlorine plant is expected to meet the total requirement of hydrochloric acid for its phosphoric acid unit and will further help to cater to the demand for caustic soda and chlorine from nearby industries and for exports.

The company's equity share is presently quoted at around Rs 20 on the bourses.

GUJARAT STATE FERTILISERS AND CHEMICALS (GSFC)

Rescued by Diversification

Commencing operations around three and a half decades ago, Gujarat State Fertilisers and Chemicals (GSFC) managed to tide over the fluctuating fortunes of the fertiliser industry by diversifying into the allied segments of petrochemicals and chemicals. The diversification is what helped the company hedge against the frequent policy changes that the sensitive fertiliser industry is susceptible to. In fact, today the company draws more than half of its annual sales from non-fertiliser areas. The company's product portfolio includes petroproducts and chemicals like caprolactum, melamine

(Rs lakh)

Financial Indicators	BASF		GACL		GSFC	
	March 1998	March 1997	March 1998	March 1997	March 1998	March 1997
Income/appropriations						
1 Net sales	25868	23153	30740	37285	187964	176010
2 Value of production	26320	23880	31092	37142	179787	183160
3 Other Income	299	447	748	578	4729	4228
4 *Total income*	26619	24327	31840	37720	184516	187388
5 Raw materials/stores and spares consumed	-12452	10500	7945	8352	92574	92601
6 Other manufacturing expenses	2189	3052	12272	12527	24408	21650
7 Remuneration to employees	2258	1872	2502	2629	13472	12422
8 Other expenses	4542	3967	2579	2650	18234	18724
9 *Operating profit*	5178	4936	6542	11562	35828	41991
10 Interest	1403	2185	3067	2945	11593	13689
11 *Gross profit*	3806	3148	3597	8842	26135	28226
12 Depreciation	1902	1329	3472	2975	7263	6529
13 *Profit before tax*	1890	1814	125	5867	18872	21697
14 Tax provision	202	197	NA	770	1877	3082
15 *Profit after tax*	1688	1617	125	5097	16995	18615
16 Dividends	620	449	NA	1443	3950	3453
17 Retained profit	1068	1168	125	3654	13045	15162
Liabilities/assets						
18 Paid-up capital	1610	1610	3750	3750	7971	7808
19 Reserves and surplus	15835	14772	39144	39032	128605	114094
20 Long-term loans	8047	6327	77204	53216	107376	109205
21 Short-term loans	2614	2697	14064	11497	20228	27925
22 Of which bank borrowings	2114	2697	7501	6547	20228	27355
23 Gross fixed assets	24201	20931	138772	115834	264299	240571
24 Accumulated depreciation	6807	5046	20074	16607	61171	54003
25 Inventories	7068	6113	2965	2749	47186	54426
26 Total assets/liabilities	34061	30180	143836	117475	330280	320226
Miscellaneous items						
27 Excise duty	3554	3380	4660	6069	11967	13297
28 Gross value added	7455	7409	8965	14230	50581	52963
29 Total foreign exchange income	4867	2783	2776	3699	2130	1257
30 Total foreign exchange outgo	5113	5292	1558	1306	77214	94805
Key financial and performance ratios						
31 Turnover ratio (sales to total assets) (%)	75.95	76.72	21.37	31.74	56.91	54.96
32 Sales to total net assets (%)	92.04	91.13	22.91	34 69	71.15	67.95
33 Gross value added to gross fixed assets (%)	30.80	35.40	6.46	12.28	19.14	22.02
34 Return on investment (gross profit to total assets) (%)	11.17	10.43	2.50	7 53	7.91	8.81
35 Gross profit to sales (gross margin) (%)	14.71	13.60	11.70	23 71	13.90	16.04
36 Operating profit to sales (%)	20.02	21.32	21.28	31.01	19 06	23 86
37 Profit before tax to sales (%)	7.31	7.83	0 41	15.74	10.04	12.33
38 Tax provision to profit before tax (%)	10.69	10.86	NA	13.12	9.95	14 20
39 Profit after tax to net worth (return on equity) (%)	9.68	9.87	0.29	11.91	12 44	15 27
40 Dividend (%)	35.00	30.00	NA	35.00	45.00	45.00
41 Earning per share (Rs)	10.48	10.04	0 33	13 59	21.32	23.84
42 Book value per share (Rs)	106.98	100.35	114.38	114.09	171.34	156.12
43 P/E ratio	17.17	NA	60.00	NA	1.83	NA
44 Debt-equity ratio (adjusted for revaluation) (%)	46.72	39.16	179.99	124 39	78.62	89.58
45 Short-term bank borrowings to inventories (%)	29.91	44.12	252 98	238 16	42.87	50.26
46 Sundry creditors to sundry debtors (%)	64.87	62.33	135.58	124 73	153.62	159.85
47 Total remuneration to employees to value added (%)	30.29	25.27	27.91	18.48	26.63	23.45
48 Total remuneration to employees to value of production (%)	8.58	7.84	8.05	7.08	7.49	6.78
49 Gross fixed assets formation (%)	15.62	15.10	19.80	51 45	9.86	19.32
50 Growth in inventories (%)	15.62	18.22	7.86	7.51	13.30	12.75

NA: means not available.

and polymers, besides nitrogenous and phosphatic fertilisers. The company manages to draw maximum returns by concentrating commodities which are on the uptrend.

Restricted operations at its Fertilisernagar units following a closure order passed by the Gujarat High Court in *suo motu* proceedings affected the company's performance in 1997-98. Capacity utilisation of the company's fertiliser plants was lower at 91 per cent as compared to 110 per cent achieved in the previous year. Similarly, production of caprolactum declined from 63,901 tonnes in the previous year to 59,501 tonnes, representing a fall of 7 per cent. However, with the commissioning of the melamine expansion plant, production of melamine during the year improved to 6,315 mts against 5,440 mts in the previous year. GSFC was reportedly at loggerheads with the Gujarat State Industrial Development Corporation (GIDC) over the price of 120 hectares of land proposed to be acquired by GSFC at Dahej. In fact, GSFC, in its annual report for 1997-98, openly blames GIDC for demanding a high price for the land, whereas GIDC when approached claimed that the price was far from high. GSFC had proposed to acquire the land at Dahej, a fast growing industrial centre in south Gujarat in Bharuch district, in 1995-96. The company had stated in its annual report earlier that considering the constraints of further space at its Fertilisernagar plant, it planned to acquire land through GIDC for further expansion as also keeping in mind the future growth potential.

Meanwhile, during the first quarter of 1998-99, shutdown of plants for annual maintenance and closure of the Sikka DAP plant from June 9, 1998 on account of a cyclone resulted in lower production. The Sikka plant, however, was retarted from July 17, 1998 and the damage to the company's property is not substantial and was reportedly fully insured along with loss of profit cover. Turnover for the quarter was Rs 435 crore as compared to Rs 484 crore in the corresponding period of the previous year, representing a fall of 10 per cent. This was mainly because of the lower production of DAP fertiliser. Further, the union government reduced the ad hoc subsidy on di-ammonium phosphate by Rs 250 per tonne to Rs 3,500 per tonne and on ammonium phosphate sulphate by Rs 108 per tonne to Rs 1,630 per tonne from October 1997. To make matters worse, there have been substantial increases in the input cost of DAP.

Kashmir Problem Thrives on Denial of Human and Democratic Rights

Balraj Puri

Looking back objectively, one can trace the beginning of the Kashmir problem and its aggravation to the denial to the people of the state of civil liberties, of democratic and human rights including the right to freedom of speech, of the right to protest and form an opposition party, of the right to vote and to elect a government of their choice.

I VALUED an opportunity, first of its kind, to interact with army officers on the issue of human rights at a seminar organised by 15 Corps at Jammu on December 21, 1998. It indicated the degree of importance that the subject as also the maturity that the army had acquired. It reaffirmed the army's commitment that violations of human rights was not a part of a deliberate policy of the army.

It would have been more useful if the occasion was used for a thorough and frank debate on the type of violations, reasons thereof and measures to minimise them. But the organisers seemed more keen to use the seminar to answer the charges of Pakistan and the militants or their overground outfits.

That the state of human rights is very bad in Pakistan is neither a news for me nor any matter of consolation. Those who vaxed eloquent at the seminar to prove that India's record of human rights is better than that of its western neighbour did their country no honour. Nor are the excesses of militants a valid alibi for similar excesses of the army. For one is in revolt against the nation, its government, laws and constitution while the other has vowed to protect them.

Those who presented the case of the army or those who sought to glorify its role presumed that the human rights issue was "another game plan of the proxy war waged by Pakistan to defame India and its forces". This amounts to either an unwarranted attack on Indian human rights activists and their patriotism or recognition of only those activists who are part of Pakistan's propaganda machinery.

That Pakistan has given arms and training to Kashmiri militants and is now sending non-Kashmiri militants who do commit excesses was more credibly exposed by international human rights organisations like Amnesty and Asia Watch as also Indian human rights groups than by all the government propaganda. Their role should therefore be welcome; also for improving the performance of the security forces. Those who write off all of them as an adjunct of Pakistan's proxy war are, in fact, trying to give Pakistan a monopoly of sympathy for the victims of human rights violations which are inevitably committed in varying degrees by both sides in the proxy war. If some of the victims look to Indian human rights activists for sympathy and redressal, is not that a national gain?

True, some of the reports of Indian human rights organisations have been quoted by Pakistan in international fora. But so would be the case with the judgments of courts, findings of the national and state human rights commissions and reports in the press. Should all these institutions be abolished? And is it the case of the government of India that no violations of human rights have ever been committed by its security forces? Would it carry better conviction? In fact all that is expected of the government is to prove its earnestness in checking them.

For this purpose an active human rights movement in Jammu and Kashmir state is as much a national asset as any other institution mentioned above. It is not that the militants always take kindly to the work of human rights activists who are exposed to risks from both sides. While Jalil Andrabi was allegedly killed by the security forces, many people in Kashmir accuse the militants of killing Hirday Nath Wanchoo, A A Guru and Abdul Ahad. Those who killed them damaged their own cause. Looking back objectively, one can trace the beginning of the Kashmir problem and its growth to its present dimensions to the denial to the people of the state of civil liberties, democratic and human rights including the right to freedom of speech, right to protest and form an opposition party, right to vote and to elect a government of their choice – which have been taken for granted in the rest of the country. Whenever these rights were restored, Kashmir became as much a part of the country, emotionally and politically, as any other part. The greatest triumph of India after independence was the willing accession of the Muslim majority state of Jammu and Kashmir to India in 1947 as the national leaders had supported the democratic struggle of the people against its ruler.

Today it has become the biggest problem of the country. Soon after accession of the state to India, Sheikh Abdullah, who was the hero of Kashmiri nationalism, with unprecedented popular support, came to power. But he cannot be credited with tolerance of dissent and commitment to democratic values. He ruled in a constitutional vacuum in which government officers could become leaders of the National Conference (NC) and vice versa.

The first fissures in the monolithic politics of Kashmir and the leadership of the regimented NC occurred when Ghulam Mohi-ud-Din Qarra parted company with Sheikh Abdullah in 1948. I pleaded with Nehru that his loyalty to the country need not be routed through Abdullah and that his democratic right to oppose the state government should be recognised. Nehru dismissed my suggestion with the plea that nothing should be done to weaken the Sheikh. Qarra and his group remained under persecution. In sheer desperation he raised the first pro-Pakistan voice in Kashmir in June 1953 which disturbed the equilibrium of Abdullah who in order to steal the new thunder of the challenge to his authority started making anti-centre noises. His differences with the centre gradually were enlarged due to other factors also, leading to his dismissal and arrest in August 1953.

In the election to the state constituent assembly, the National Conference led by the Sheikh won all the 75 seats. While nobody dared file a nomination paper against the NC in Kashmir, in Jammu region nomination papers of opposition candidates were rejected. Again it was the only state where government officers could become office-bearers of the ruling party and vice versa. In such a regimented set-up, secession became the only outlet of popular discontent.

Similarly I pleaded with Nehru that a pro-India party, by providing a proper channel to anti-government sentiments which developed after Abdullah's arrest, would prevent them from becoming anti-India. For this purpose I proposed to organise the state branch of the Praja Socialist Party. Nehru again dismissed the idea as he would not like to weaken Bakshi Ghulam Mohammad despite all his faults. When we arrived in Srinagar to formally inaugurate the party in November 1954, party president Asoka Mehta along with all of us were physically beaten and bundled out of the valley.

In 1958 G M Sadiq led his leftists group out of the NC to form a pro-India opposition Democratic National Conference. But the national leaders and the press were again alarmed over what they called "disunity in the ranks of nationalist values". The two parties were thus pressurised to reunite in 1961. The entire national media hailed that as a triumph of the national interest. In 1967 Bakshi Ghulam Mohammad revived the NC when the ruling national official group led by Sadiq had converted it into the Pradesh Congress Committee. Nomination papers of its candidates in 38 constituencies were rejected. A number of duplicate ballot papers were in circulation which I personally presented to the chief election commissioner. He simply argued that Bakshi also used to do that. In fact the election to the state assembly were never fair. That Sheikh Abdullah won cent per cent seats in the first elections in 1951 does no credit to his popularity and to his stature as a great leader. However, whenever the opposition party was tolerated and people had the right to protest and choose their government freely anti-India sentiment got sublimated.

After Sheikh Abdullah's return to power, he acquired real moral and political legitimacy when his party defeated the main opposition, the Janata Party, in the fairest first ever election in 1977 when people of the state for the first time recognised the potentialities of being Indian citizens. The fact that they could elect a government of their choice and could defeat even the party in power at the centre gave an enormous sense of confidence to the people of Kashmir in being Indian citizens.

It was a similar experience in 1983 when Farooq Abdullah led his party to victory against the Congress Party which had by now become the ruling party at the centre. The beginning of the present phase of the Kashmir problem can be traced to his dismissal in 1984 and his reinstatement in 1986 when he agreed to form a government in coalition with the Congress Party. It was the biggest blow to the self-respect and dignity that the people of the state had acquired. It blocked all secular outlets for protest. The manipulation in the elections of 1987 further blocked democratic avenues of protests. Having been frustrated in expressing their discontent through the ballot many Kashmiri youth took to the method of the bullet.

The moral of the above experience is that in the case of Kashmir, loyalty to India and loyalty to the government of India have always been treated as synonymous. It was due to this policy that the secessionist movement started after 1987. And the way the movement was sought to be checked added fuel to fire. In June 1988 a demonstration held in Srinagar to protest against the sudden and steep rise in power tariff was fired upon killing three persons. The demand for an enquiry into the firing was rejected as it was condemned as anti-national. Soon it became an all-Kashmir protest which turned violent.

Spoardic terrorist acts started thereafter. In the early hours of January 20, 1990 Srinagar city was cordoned off for a wholesale and ruthless search of every household. It provoked widespread protest. The protesting processionists were allowed to come from different parts of the city to a place called Gow Kadal where they were fired upon which resulted in the killing of 35 persons, the highest number of persons ever killed in a day in Kashmir till that day. While no gain from the operation was clamied, it triggered off a mass insurgency.

How counter-productive ruthless actions of this type are is indicated by the way the funeral procession of Moulvi Farooq was fired upon. Though according to popular perception he had been killed by militants, the firing in a narrow lane of Srinagar which killed over 60 mourners merely succeeded in diverting popular wrath from the militants to the Indian government.

A number of such incidents can be quoted. Whenever people became disillusioned and angry with Pakistan their sentiments were submerged by some tactless act of the security forces. The success of the security forces in getting the seige of Hazratbal lifted brought appreciation for the goverment of India from all over the world. But soon after the killing of 50 persons at Bijbihera by the BSF did more damage to the goodwill that India had earned. In 1998 when militants killed 26 Kashmiri Pandits at Wandhama, every Mulsim was visibly shocked. Next day the killing of seven Muslim youth in Kishtwar by the security forces was exploited by Pakistan to give a call for a 'bandh' throughout Kashmir and Pakistan and thus to submerge the sense of shock of Kashmiri Muslims by a wider Muslim protest. The series of mass killing of Hindus in the Jammu region had similarly loaded the Muslim population with a sense of guilt, but the killing of 19 Muslims in Surankote allegedly by the army reduced their guilt and thus in a way facilitated the task of the militants to extend their activities.

It can be proven with abundant empirical evidence that independent monitoring of human rights violations serves the national interest best, prevents further alienation of the people, prevents defaming of India abroad and helps in improving the discipline of the security forces.

Fun and Games for BJP

Arvind N Das

Even as storms gather around them, the ostriches in the BJP-led government bury their heads in the sands. Worse, they make clear their utterly cynical attitude towards governance.

DAYS before Jayalalitha caused a political earthquake in Delhi, the Vajpayee government celebrated its existence extravagantly. It had some reason to celebrate. The last time Atal Behari Vajpayee headed a government, it lasted in power for a mere 13 days; this time it had completed a year in office. It is another matter how that feat was accomplished but the likes of the enthusiastic Pramod Mahajan were not concerned about that. Theirs was not to examine how; theirs is but to try and wow! And that is what the government tried to do as it unleashed one spectacle after another in a fit of self-congratulation. If symbolism overtook substance, that did not bother the prime minister and his drumbeaters.

In fact, it was not coincidental that just when the BJP-led government was gleefully patting itself on the back the country itself experienced a different order of events. The very day that Pramod Mahajan ordered the initiation of the fun and games and had Doordarshan launch a Sports Channel, 37 people were murdered in Bihar in the gruesome game of death that has been played there. The utter incompetence of the Vajpayee government in handling Bihar was exposed mercilessly but the enactment of the massacre precisely when the prime minister was using the idiot box to address the nation did not dull the celebrations.

The spirit of the celebrants was also not curbed by the fact that for days on end the sordid Bhagwat and Guruswamy episodes had been laid out before the nation and parliament had been so rocked by these that it had transacted no business at all. Nor did it bother those who determine the contours of the Vajpayee government that the picture it presents to the public is one of abject surrender to unreasonable allies, succumbing to all vested interests, making the worst possible compromises merely to survive a little longer in office. The incompetence of the government has been demonstrated repeatedly. Now not only is its ideological inconsistency apparent but 'insiders' like Mohan Guruswamy have started revealing its lack of probity too.

Look at the charges made by the erstwhile economic advisor to the roll back finance minister, Yashwant Sinha. Look carefully at three specific allegations: those relating to fixing the price of Enron power, those regarding the proposed sale by the Unit Trust of India of ITC shares to British American Tobacco (BAT) and those concerning giving up management control over Maruti Udyog to Suzuki. What stands out in the first case is sheer incompetence or worse in negotiating a higher power purchase rate with Enron than the rate which even Pakistan was able to get. In the second, what is obvious is the desire to please the foreign peddlers of tobacco by handing over a major Indian company to them in a situation where there can be no invocation whatsoever of public interest of any sort. In the third instance too the willingness and even eagerness to surrender the very crown jewels of Indian industry is apparent. In all these cases, the hollowness of the claim of the BJP of propagating 'swadeshi' has been adequately exposed by the party's own handpicked in-house economist and publicist. Indeed, Guruswamy has demonstrated that the Bharatiya Janata Party (BJP) speaks with the proverbial forked tongue: it hisses both 'swadeshi' and globalisation simultaneously. The problem for the BJP is compounded by the fact that it has to combine loyalty to finance and industrial capital with a petty bourgeois social base. Thus, while on the one side, its leaders have no choice but to play footsie with multinational companies, they also have to project to their traditional supporters that they have not given up their old prejudices.

This involves walking on the political razor's edge. The Sangh 'parivar' has tried to achieve this by splitting itself up into several organisations, each with a slightly different orientation. Thus, while the parent body, the Rashtriya Swayamsevak Sangh (RSS) thrives on projecting values of 'discipline' and 'nationalism' to the mufassil youth, the Vishwa Hindu Parishad (VHP) battens on unabashed bigotry, inciting communal passions for the RSS storm-troopers to step in along with the uncontrollable lumpen elements who form the Bajrang Dal. Meanwhile, even as new converts to the BJP ideology like finance minister Yashwant Sinha and power minister Rangarajan Kumaramangalam try to project the party as an united entity in parliament and elsewhere, according to Mohan Guruswamy, the faction-ridden party itself cuddles up to various vested interests.

It is the deep factionalism within the BJP that has manifested itself even during the 'birthday bash' of the government. It was surely not coincidental that both party president Kushabhau Thakre and the 'Number 2 Sardar Patel', home minister L K Advani, kept away from Pramod Mahajan's fun and games. It was also not coincidental that Sushma Swaraj, who has been replaced by Pramod Mahajan in the ministry of information and broadcasting, not only absented herself from the showbiz extravaganza put up in Hauz Khas but even apologised to her constituents for the 'mess' made by Mahajan. And, of course, even as the prime minister and his Sancho Panza were deep into celebrating their feat of survival, the deep fissures in the party's UP unit were becoming apparent to all.

In the government too there is no assurance of stability. The Chautala Lok Dal has already withdrawn from the coalition. The Bihar state unit of the Samata Party has split and the party's MPs are unlikely to be immune from the effect of the split. The humiliating exit of Gurcharan Singh Tohra from the Shiromani Akali Dal is not likely to be ignored by the SAD MPs loyal to him. And can the BJP really assume the continued support of the mercurial Mamata and Jayalalitha?

The fact that parliament went into a mid-session recess when the BJP launched its fun and games must have provided some comfort to its managers for things had started turning too hot for it just when the party was beginning its celebrations. The attitude of the Congress in the Lok Sabha and the Rajya Sabha had clearly started indicating that Sonia Gandhi was no longer content with playing the role of the 'constructive opposition'. Indeed, Atal Behari Vajpayee acknowledged as much when he said that the Congress has begun to act as the "destructive opposition". The Guruswamy and Bhagwat issues have come so handy to the Congress to gain political advantage that it is unlikely to left the opportunity pass. Even the schedule of parliament agreed on before the recess makes it clear that the Guruswamy and Bhagwat matters will continue to rock both the houses when they reconvene later this month.

But then even as storms gather about them, the ostriches in the government bury their heads in the sands. Worse, they make clear their utterly cynical attitude towards governance. They ignore people dying in Bihar because that is 'normal' but how long can they afford to take no notice of the crime wave in the capital? It is not clear that the BJP and its allies have even realised that governance is different from giving people a song and dance routine.

Banking Sector Reforms

The Other Side of the Coin

P N Joshi

The flip-side of banking sector reforms has been the overemphasis on profits and virtual neglect of the distributive role of the banks. Now, only strong and high net worth companies within the organised sector are capable of raising funds at a considerable lower rate of interest, while the credit disbursal to small borrowers has sharply declined.

FOLLOWING the recommendations of the Narasimham Committee (1991), a series of reforms, including a move towards international accounting standards, viz, income recognition, asset classification, provisioning and capital adequacy, were introduced since 1992-93. Considerable attempt has been made to impart transparency to the balance sheets of banks. A good deal of uniformity in computation has helped to compare meaningfully performance of different banks. Inevitably, progress of the reforms in the banking sector has been assessed in relation to the mesaures initiated during last five-six years. There has not been any attempt to look at the flip-side of reforms. In fact, there is a deliberate attempt to gloss over the dark side of the reforms, concentrate on the positive aspects and harp on the achievements.

It is customary in all assessment exercises to consciously neglect the dark side of performance. Nonetheless, it needs to be emphasised that utter neglect of the repercussions of the policy ultimately results in a self-defeating exercise. The victory won often turns out to be a pyrrhic victory. The society pays a heavy cost for achieving the results. It is necessary, therefore, to look at the other side of the coin and initiate steps in right earnest to rectify the deficiencies at the right time.

The authorities have a natural tendency, strongly supported by acolytes, to move towards the objective with missionary zeal. They have no patience to listen to the criticism while all praise for the reforms is not only welcomed but is solicited. It may be recalled that after the nationalisation of 14 banks in July 1969, the overriding objective was to take banking to the 'masses'. The resounding voice of the slogan from "class banking to mass banking' rent the air with full vigour. A feeble voice in those days about 'recovery or profitability' was totally brushed aside. None had the time to listen to these terminologies in the early seventies. Similarly, today none has the time to listen to the slogan of "mass banking" and therefore, social aspect of banking has lost its glitter. While the facade of priority sector lending continues, the fact that lending beyond Rs 25,000 is subject to commercial rate of interest is proof enough of the dilapidated condition of the social lending concept. It is interesting to see that the reforms introduced since 1992-93 in the banking system have had a heavy toll of small borrowers. It is a fact, which has remained obscure, that between end-March 1992 and end-March 1996 the number of borrowal accounts has declined sharply from 65.9 million to 56.7 million, i e, by more than 9 million It is pertinent to note that during the four preceding years, i e, between March 1989 and March 1992 the number of borrowal accounts had increased sharply from 52.1 million to 65.9 million, i e, by 13.8 million The increasing trend of credit disbursal to a large number of small borrowers arrested with the introduction of banking sector reforms and the spread of banking credit facilities was not only halted but the number of small borrowers getting financial facilities sharply declined during the five-year period ending March 1996.

Unfortunately, beyond March 1996, data in respect of borrowal accounts are not available. It is more than certain that the number must have further declined since March 1996. This clearly establishes the fact that the social content of Indian commercial banking has been given a decent burial. Thanks to the reforms!

It is possible to surmise that the decline in the number of borrowal accounts in the banking system could be due to two factors: (i) neglect of small borrowers, and (ii) write-offs in small accounts where the Deposit Insurance and Credit Guarantee Corporation of India (DICGC) claims were received.

(i) *Neglect of small borrowers:* The banking sector reforms strongly emphasised the importance of profit. It is well known that the operational costs of managing a large number of small borrowal accounts are high and the rate of interest on such small accounts is low. The threat of account becoming non-performing looms large. Therefore, obviously, there is a natural urge among the bankers to avoid increasing exposure to the small sector. This reduces the number of borrowal accounts.

(ii) *Write-off in small accounts where DICGC claims were received*: The overriding importance under the reforms, of reducing the NPA ratio, compelled the banks to have a second look at the large number of accounts where some recovery was effected through the receipt of funds from the DICGC. In a number of accounts the DICGC reimbursed the banks at the cost of its health, to the extent of 50-60 per cent of the outstanding balances. Under the reforms package, full provisioning was needed for the remaining balance in the borrowal accounts. Instead of making full provision which necessarily has to be after tax, the banks preferred to write off the remaining balance in such accounts and therefore the number of borrowal accounts vanished from the banks' ledgers. This trend must have been accentuated after March 1996, when full provisioning as in the case of larger accounts was introduced as against the percentage provisioning in the case of small accounts.

An almost unintended impact of the reforms has gone virtually unnoticed. The compulsion on banks to reduce their non-performing assets ratio has given rise to munificent benefits to wilful defaulters. Narasimham Committee report (II) has emphasised that the net NPA ratio of banks should be brought down below 5 per cent by year 2000 and it should be brought down below 3 per cent by 2002. (Banks having international exposures should bring down their net NPA below 3 per cent by 2000 and to zero per cent by 2002.) In the absence of proper atmosphere for recovery of bank loans in the form of efficient legal system, effective debt recovery tribunals (DRTs), fear of severe punishment for cheque bouncing, social stigma for wilful defaults, etc, banks, being forced to reduce NPA, had no alternative but to make compromises with wilful defaulters. This led to settlements of debts and compromises of loans at a high social

TABLE BORROWAL ACCOUNTS IN THE BANKING INDUSTRY

(in 000s)

Year	No of Borrowal Accounts	Variance No of Accounts	Per Cent
March 1989	52113		
March 1990	53851	+ 1738	3.34
March 1991	61946	+ 8095	15 03
March 1992	65862	+ 3916	6.32
March 1993	62116	- 3746	- 5.69
March 1994	59651	- 2465	- 3 97
March 1995	58097	- 1554	-2.61
March 1996	56672	- 1425	- 2.45

Source. *Basic Statistical Return*, Volumes 18 to 25, published by RBI.

cost. The defaulter was the gainer, banking system was the loser.

The reforms have also unwittingly led to mis-allocation of funds among different segments of society. The small sector, particularly weaker sections, is gradually being eased out, despite tall claims of schematic lending. Even within the organised sector, it is the strong and high net worth companies which are raising funds at a considerable lower rate of interest. Strong and efficient banking is identified with profits. Prima facie, it sounds logical. But, profit has become the "be all and end all" of banking today and banks are becoming averse to lending. Even though SLR has been reduced to 25 per cent, investments are increasing at a faster rate in government securities, in Commercial Paper, NCDs, bonds, debentures, etc. Income, and not sectoral distribution of credit, has become the obsession with bankers. This has led to mis-allocation of funds. Financial discipline is at a discount. The corporates are exploiting the situation. Credit discipline is evaded by floating NCDs and preferential shares at lower rates much below the PLR. Banks subscribe to these instruments at rates lower than PLR, since PLR discipline does not apply to investment return. The corporates thus get funds at rates lower than PLR without the hassel of adhering to current ratio, stock statements, QIS, etc. It is interesting to see that banks identified as the most efficient in the nationalised banking sector at the end of March 1998, had channelised higher percentage of incremental resources towards investments than credit. Thus, the distributive aspect of banks' funds is getting distorted. Distributive justice is thrown to the winds. The 'fear psychosis' has been bandied about as the reason for lending fatigue. Equally, if not more, important reason for lending fatigue is the overemphasis on 'profit'.

It is important to note that it is possible to make profit through policy diktat in a single activity of banking and show good results. For instance, in 1997-98, YTM was reduced from 13.56 per cent in March 1997 to 12.15 per cent in March 1998. This helped banks considerably to shore up profits. Some banks made huge profit by trading in government securities and the amount was used for provisioning, write-off, etc. It is debateable whether stray profit in one or two banking activities could be interpreted as 'sound and efficient banking'.

Yet, another impact of the banking sector reform, which has escaped attention is the substantial expansion of foreign banks in the country. At the end of June 1991 there were 24 foreign banks operating in India with a branch network of 140. At the end of June 1998, the number of foreign banks has substantially increased to 42 and their branch network also has gone up to 182. During 1997-98 alone, the total assets of foreign banks in India have increased by more than Rs 10,000 crore. It is learnt under the World Trade Organisation (WTO) Agreement a minimum of 12 licences every year have to be issued to foreign banks or their branches. This will ensure fast spread of foreign banks' operations in the country. Gradually, these banks are spreading their tentacles to the suburbs of the 'metros', and to the commercially significant semi-urban centres. The long-term implications of this aspect of reforms needs to be studied in depth. In China, which is quoted as a fast liberalising Asian giant, there are severe limitations on the operations of foreign banks in the country. In a number of areas in China, foreign banks' operations are limited to funds acquired from abroad. Perhaps, a review of our policy has become imminent.

It is undeniably true that the introduction of reforms process has paved the way for building a strong and efficient banking system. Its importance against the backdrop of recent happenings in the south-east Asian countries cannot be overemphasised. There can be no two opinions on the continuation of the reforms. And yet, the 'other side' of banking sector reform narrated above partly explain the predicament faced by the Indian banking system. Their low profitability is not merely due to the visible deficiencies in terms of low productivity, over-staffing, structural rigidities, etc. They, no doubt, have impinged on the profitability of the banks. But the issues narrated above have in a disguised manner reduced the financial muscle considerably. Their competitiveness is at stake because of the delicate financial health. Aims and the larger objectives of commercial banking in India appear to have gone haywire. These issues have gone unnoticed. It is the time we wake up!

UTTAR PRADESH

Kols of Korawal

From Sufficiency to Impoverishment

Kripa Shankar

Evicted from their ancestral land by the Britishers and swindled by government officials and local politicians in the post-independence period, the kols of Uttar Pradesh, once a self-sufficient tribe, are being pushed into perpetual state of dependency.

KOL tribe inhabits largely the Vindhya range in Uttar Pradesh (UP) and Madhya Pradesh (MP). In MP kols are recognised as scheduled tribe but not so in UP where they are included among the scheduled castes. Since time immemorial the kols subsisted largely on forest produce along with some crop husbandry. Extensive deforestation during the British rule disrupted their traditional support system and introduction of zamindari alienated them from the land. Their traditional community organisations were dismantled and a hostile bureaucracy was superimposed. They found themselves under a very hostile surrounding. Their access to forest was restricted and forest wealth was itself declining fast. The landlords were now masters of the land and in places where tribals were practising some agriculture after clearing the forest they would be forced to vacate as the landlords would appropriate such agricultural land claiming it be their own. The tribals would have no records to substantiate their claim on land and then retreat further into the forest, clear some land for agriculture only to be dispossessed again after some time. This is how agriculture spread in this area which simultaneously resulted in the alienation of their land. Many would then be forced to work as bonded agricultural labourers as the landlords could carry on agriculture only with the help of the kol labourers. They lived the life of a chattel although it was moderated by a patron-client relationship. As their dependence was total, sexual exploitation and humiliation was the order of the day.

Then came independence, abolition of zamindari and other land reform measures, initiation of planning and a developmental process along with elections based on adult suffrage.

How the post-independence development process has unfolded and affected the life and living of the kols is the subject matter of this study which was confined to a cluster of 10 hamlets predominantly inhabited by the kols in a largely inaccessible area known as Korawal of Hallia

block in Mirzapur district of UP on the border of MP.

Eviction from Land

Korawal part is upland, and on account of no roads and bridges over rivulets, used to be completely cut off during the rainy season. It was only last year that a bridge was constructed on river Kahejua. Now, the western part is no longer cut off during the rainy season though other parts still remain inaccessible. The block headquarter is at a distance of 20 kilometres from the study area and district headquarter is 75 kilometres. Only a few decades back it was a dense forest. At the time of zamindari abolition the raja of Vijyapur, who was going to be deprived of his estate, settled all such far-off land with his relatives, hangers-on and others who could approach him. The kols were nowhere in the picture. They did not know that the land was being settled or the fact that zamindari was being abolished. Even if they had known of it, it would not have mattered for they neither had any money nor could dare approach the raja.

In the post-independence period, in the name of development a so-called developmental bureaucracy descended in the area. The block headquarter was established in Hallia. This bureaucracy found a fertile ground in the tribal areas as many things could be done only on paper and money appropriated. Primary schools were established where teachers would hardly come to school. The gramsevak would only do paper work and embezzle the amount. Two co-operative credit societies were later on established which only specialised in giving fake loans. They have now been liquidated but the tribals, who never took any loan, are still being harassed and forced to repay the loans.

A medium-sized earthen dam, 7 kms in length was constructed on river Adva in this block in late sixties. The upland of Korawal region, being at a higher altitude remained unaffected by the dam's irrigation facility. But the northern part did witness growth of agriculture in the wake of creation of irrigation facilities where high-yielding wheat and rice crops replaced the traditional kodo and sawan. The influx of outsiders in the irrigated part became more pronounced as land productivity increased. Those who had acquired land from the raja of Vijyapur began to settle here and engaged the kol tribals as their 'halwahas'. The outsiders were from upper castes and were powerful persons with close links with the revenue bureaucracy. The lekhpal would be always at their beck and call. The construction of Adva dam had also brought in contractors and others, who acquired land.

Incidentally, seven, mainly tribal, villages were submerged. While landowners got compensation, the tribals were asked to move in the forest. Very few got any compensation. In many places where the tribals had settled and started some agriculture, the gram panchayats being dominated by landed elements transferred such areas to the forest department with the design that eventually the tribals would be displaced. The forest department is now trying to do so. Notices have been served and on few occasions attempts were made to physically oust the tribals. These attempts faced resistance, yet the battle continues even to this date. Last year the oustees in village Surajgarh organised a dharna for two days at the district court against the high-handedness of the forest officials.

Distribution of gram samaj land (GS), initiated in mid-seventies, was of great significance for the tribals. In the beginning they did not know that such a programme had been initiated. The powerful landowners, as a matter of fact, succeeded in getting such land distributed in favour of their kith and kin. So was the case with the lekhpals. The latter found a golden opportunity to acquire land through fake distribution of GS land to tribals contiguous to each other which later on could be developed as a mini farm. In the study areas there are two such lekhpals owning a farm and house each. As land was plenty, a fair number of tribals were also given land who could pay the lekhpal the money the latter demanded. But the tribals had their turn last. The better part of the GS land invariably went to those who were not eligible for it, and were in fact outsiders. The landowners had already been encroaching on the GS land as there was no one to object to it. The law stipulated that in such cases the village pradhan should institute a case against the trespassers. As the pradhans themselves came from landed gentry, they would not oppose such encroachment as it meant inviting hostility which may affect their election prospects. Besides, they will have to attend to the court matters for which no travelling allowance is admissible. The net result was that all such encroachments were overlooked.[1]

Distribution of GS land has been a continuing process as all governments promise it. Last time when the Bahujan Samaj Party formed its government, land distribution was again on the priority. Since there is now comparatively more awareness among the poor, blatant wholesale misappropriation of GS land is not possible. But this does not mean that ineligible persons were kept at bay. Land value has increased and those with money are prepared to pay the lekhpal any amount he demands. As a result, the outsiders again got the larger and better part of the GS land. The lekhpals have also devised more refined and sophisticated methods to circumvent the rules. While preparing the 'patrawali', the lekhpal abstains from giving any serial number to the list of beneficiaries in whose favour the land management committee resolves to distribute the land. Some space is left at the beginning or at the end and middle of the page. After the resolution is adopted and the members have signed the papers, the lekhpal inserts the names of those who have bribed him. The sub-divisional magistrate naturally approves it as he finds everything in order. This is done where the pradhan is not in league with the lekhpal but if the two combine, there is no end to the mischief. In the latest round, knowledgeable persons reported that at least one-third of the land was distributed to persons who were not eligible for it. The lekhpals now have greater opportunity to mint money. Landless people will flock to him and he will collect money with an assurance that he would give land. Then one fine morning he will get himself transferred. The new lekhpal will repeat the same story. Tribals have borrowed money to ingratiate him only to be cheated in most of the cases. But since land is in plenty, many kols have got the GS land and in our study area about 31 per cent of the kol households have been provided land under this programme over the years. More than one-fifth (22 per cent) of the land held by such households consists of the GS land. There still remains sufficient GS land in every village which has not been distributed. The lekhpal and the pradhan have a vested interest in keeping GS land undistributed as the former can use the bait of distributing the land on the eve of next panchayat elections and the latter can extract more money as the number of claimants increase and land value rises.

Pattern of land ownership among 626 kol households surveyed showed that 27 per cent of the households were absolutely landless. Another 3 per cent of the households had an average holding of 0.25 ha. Next 10 per cent of the households had an average holding of 0.46 ha. Thus, 40 per cent of the households comprised of landless and semi-landless with holdings of less than half hectare. The average size of all the holdings was 1.08 ha, and generally, the land was of inferior quality. There were eight big upper caste landowners in the study area who held 807 ha of land, which happens to be 20 per cent higher than what is held by 626 kol households. The average size of big land holdings was more than 100 ha, and the

largest one being 186 ha of land. The ceiling on dry land in UP is 18 ha. Thus, more than 10 times the ceiling land can be easily held in this area.

The Real Beneficiaries

Integrated Rural Development Programme (IRDP) likewise became an instrument for personal aggrandisement on the part of large landowners and the gram vikas adhikari (GVA), more so in the initial phase. The tribals and other poor were unaware of IRDP in the beginning. Landowners would take the thumb impression of their halwahas, ie bonded agricultural labourers, on the plea that the government had started a scheme to assist them. Nothing would be made available to them and the entire money would be appropriated by the landowners, the GVA and the bank functionaries. There are cases where landowners have renovated their houses, purchased motor cycles and other consumer durables through this device. In a glaring case, a tractor was purchased by a big landowner through this device. In the beginning no recovery notices would be served. Later came the loan waiver scheme. Under this scheme, photographs have to be affixed and the amount is given in form of cheque. Hence, gross misuse of the scheme is not possible; but a cut of 20 per cent is common in IRDP scheme loans.

A tribe of 'dalals' has appeared on the scene. They induce the poor to take loan from IRDP and they complete all the formalities. They induce the would-be beneficiary with the allurement that the loan would be written off and that they will see to it that notices are not served. In most cases, the beneficiaries get only half the loan amount while the rest is divided among the dalal, the GVA and the bank functionary. In such cases no productive work is launched while the amount generally goes into meeting consumption needs.

With the tribals getting scared due to recovery proceedings, the dalals too have changed their tactics. They assure the would-be beneficiary that loan amount will be immediately deposited so that question of recovery does not arise. In one village some 30 applications were submitted. Usually half of the money was given to beneficiaries. But now notices for full amount are being served.

In the study area we located 94 IRDP beneficiaries and 4 others who had taken loan from the Land Development Bank for purchase of pump sets. There were 12 IRDP beneficiaries who purchased pump sets which, except in two cases, were well functioning. The four beneficiaries who purchased goats, appeared to be doing well. Two beneficiaries purchased bullocks and their asset was intact. One beneficiary who started a barber's shop was also doing well. Two beneficiaries opened grocery shops while one started a cloth shop. None could survive beyond a year. Those who had pump sets from Land Development Bank were also doing well.

Deprivation and Immiseration

Only 8 per cent of adult kol males were literate and 2 per cent of adult females could be said to be literate. The primary schools do not function as the teachers do not come to school. A voluntary organisation in this area is active in the field of primary education and is running informal schools with local co-operation. In such villages 43 per cent of the boys and 25 per cent of girls in the age group of 6-14 were found to be attending these informal schools. Incidentally, in many cases these informal schools run by the voluntary organisation are held in government primary school buildings. The government teachers are happy that the schools are not deserted so that no one can detect their truancy.

Males constituted 57 per cent while females constituted 43 per cent of the kol population. There were more males than females in all the age group except in the age group of 55 and above where there were more females than males.

Occupational pattern of the males in the age group of 15-55 showed that 38 per cent were cultivators, another 50 per cent were casual agricultural labourers, 8 per cent were engaged in carpet weaving, while the rest were in miscellaneous activities or were unemployed. Among females, cultivators formed 51 per cent of the workforce followed by casual agricultural labour (28 per cent). Migration did not exist in this region a generation ago. Now, 18 per cent of males in the age group of 15-55 annually migrated for some days of work.

The prevailing wage rate for agricultural labourers in the villages is 3 kgs of wheat or 6 kgs of paddy. The migrants get higher wages ranging from Rs 25-40. Wages in kind is fast becoming obsolete.

Average yield of wheat was 8 quintals per ha on unirrigated fields and 20 quintals on irrigated fields. The yield of paddy was 25 quintals and 45 quintals, respectively. Value of agricultural produce per hectare is round Rs 4,000, including by-products.

A few generations back the kols appear to have had greater food security and better forest produce. Hunting and fishing were the favourite past-time. Every household would keep a number of milch cattle, mostly cows, as feeding them was no problem. Buttermilk, too, was abundant.

Over the years, forests have been denuded and the kols keep cows now not so much for milk but to use their dried dung as fuel. The cows are invariably rickety and those lactating give an average yield of half litre of milk a day. Very few households manage to consume milk or milk products. Mahua trees were abundant in the past. The poor were free to collect mahua flowers which besides being intoxicants, supplemented the diet. Every halwaha was also given a mahua tree as usufruct along with the 'kolia', i e, a small piece of land whose produce was to be exclusively consumed by him.

Foodgrain production has increased in the past decades but per capita per day production of the same was found to be 414 grams among the kol households, much lower than the requirement given that the diet almost exclusively consists of cereals. There is great shortage of pulses in an average diet. On an average a kol household consumes pulses for about 24 days in a year. For the rest of the year, bread or rice is taken with some seasonal home grown vegetable, potato, 'chatney' or simply with salt and chillies in lean seasons. In such times, food is cooked only once a day. A situation of semi-starvation generally prevails in July and August, and again in December and January for majority of the households.

With a view to have an idea of under-nourishment among children we took the height and weight of 301 male children and 175 female children randomly in the age group of 1 to 8 years in the study area and compared it with the standard height and weight. It was found that 92.7 per cent of the male children were under-weight and the percentage for the same was 93.7 among female children. This was more pronounced among lower age-groups both among male and female children. As regards height, it was found that 81.7 per cent of the male children and 80 per cent of the female children were below standard height.

Average household income of kol households was around Rs 10,000. Only three per cent of such households had income of more than Rs 16,000 which in fact is the cut-off point for poverty line. Crop husbandry accounted for 54 per cent of the household income, followed by income from casual labour (20 per cent). Sharecropping accounted for 12 per cent of the income. Carpet work accounted for another 8 per cent of the income. The share of forest produce in the household income was 6 per cent.

Carpet weaving and migration have been the two factors for modest diversification of the economy. With the former almost stagnating, out-migration is the only option

for survival. Intensive watershed development holds great promise for this area as it will regenerate land, water and forest resources while providing job within the rural area itself. But budget for watershed is minuscule. Development of piggery and poultry can be a big income generating source for kol households. But taboo against piggery is so strong that no one can think of it. The taboo against poultry farming is not that strong but the extension agencies have done nothing to popularise poultry farming among such households. Incidentally, supply of eggs to Mirzapur and elsewhere in eastern UP is mainly from Hyderabad.

Note

1 At the time of zamindari abolition about 24 lakh ha of GS land was vested with the gram sabha in UP. Mangaldeva Visharad committee which was set up by UP government to look into land distribution was constrained to find that by 1970 only 4 lakh ha of GS land remained with the gram sabhas. The government had no explanation for it. Obviously, this land was encroached upon by powerful elements. The landowners would sometimes take to more subtle methods. They would bribe the revenue clerks at the lower level who would make entry in the old village records that such and such GS land was given to the particular person by the zamindar. In such cases they would become the *de jure* owners of the land.

Microfinance Survives Bangladesh Floods

Nina Nayar
M Emrul Hasan Faisal

While floods have plagued Bangladesh for centuries, the 1998 floods have been recorded as the worst to hit Bangladesh ever. The impact of the floods on Bangladesh's critical microfinance sector needs to be analysed at three levels: at the level of the client and the household, at the level of the individual microfinance providers and at the level of the overall microfinance industry.

POOR people in Bangladesh have had access to microfinance services through various informal sources, including the moneylender, informal credit and savings co-operatives, rotating credit associations, religious institutions, etc. Formal co-operatives have also been in existence for several decades. However, these sources could not meet the growing financial needs of the poor. In the 1970s, several players piloted organised interventions to mediate financial services as a means to alleviate poverty. The most famous of these interventions is the Grameen Bank. Over the last two decades, microcredit providers have worked to use microfinance provision as an effective instrument towards improving the economic well being of families. Microfinance has contributed, indirectly, to building the self-esteem and self-reliance of the poor, giving them the confidence and the economic means to move them out of poverty into survival and beyond. Many institutions are now integrating microcredit into their ongoing social development programmes such as health, nutrition and education, so that clients of such programmes can absorb non-financial inputs more effectively.

Of the 7.5 million poor people served by non-governmental institutions in Bangladesh, Grameen Bank serves 2.36 million, Bangladesh Rural Advancement Committee (BRAC) 2.02 million, Proshika Manobik Unnayan Kendra (Proshika) 7,40,000 and the Association for Social Advancement (ASA) 7,10,000. These institutions and others are supported by international donors and a range of international NGOs. The World Bank supports the quasi-governmental second-tier institution, Palli Karma-Sahayak Foundation (PKSF) that on-lends to NGOs providing microfinance services. The Asian Development Bank (ADB) supports government sponsored-microfinance programmes which also have significant outreach.

Impact of the Floods

While floods have plagued Bangladesh for centuries, the 1998 floods have been recorded as the worst to hit Bangladesh ever. According to a World Bank report,[1] during the period of June to September 1998 more than two-thirds of the country was affected, with more than 1,00,000 square kilometres of land under water.[2] Significant loss of life resulted from flash flooding, drowning, water borne-diseases, starvation, snake bites and related accidents. Agriculture and horticulture which account for about 50 per cent of the country's GDP, encountered heavy losses – 36 per cent in rice production, 27 per cent in vegetable production, and 7 per cent in jute production, these being the primary products of the country.

The livestock, poultry and fisheries sectors were also hard hit, with losses of over 2,00,000 large and small livestock and 4,20,000 poultry heads. Over 45,000 hectares of fisheries sector were affected with losses estimated at US $32 million. These sectors which had been growing at an average annual rate of 8 per cent will likely shrink to an annual growth rate of not more than 3-4 per cent as a result of the flood.

Apart from the loss of lives and livelihoods, the flood had a major impact on the infrastructure of the country, with damages to 15,000 kilometres of roads, 14,000 schools, hundreds of bridges and culverts, and nearly half a million homes. The floods also resulted in food shortages and an increase in food prices. Preliminary estimates suggest that the country's annual foodgrain import cost will go up to a staggering US $930 million in 1999, which is almost a three-fold increase from the previous year. The shortage of food combined with distribution difficulties and hoarding, have resulted in a rise in food price inflation which was recorded at 10.8 per cent in September, up from 8 per cent in July 1998.

In summary, in less than three months, the flood caused direct damages totalling almost an estimated US $2 billion, equivalent to 8.6 per cent of the country's GDP.[3]

Impact on Microfinance Sector

The impact of the floods can only be understood by analysing it at three levels – at the level of the client and the household, at the level of individual microfinance providers (institutions), and at the level of the overall microfinance industry.

Many of the poor households that were affected by the flood have one or two members who are clients of organised microfinance providers. A majority of the outstanding loans were for investments in livestock, petty trading, paddy stocking, home improvements and sharecropping. Some clients had used some of the loan monies for medical treatment, the paying off of other more expensive loans, children's education or simply for usual consumption purposes during the traditional lean period. The loss of homes in addition to leaving families without shelter, also meant the loss of productive assets, including tools. In many cases, the house was also the workplace and storage place for goods and raw materials. Asset and income losses during the floods, for such clients, were disastrous, leading to extreme depression and sometimes suicide.

Grameen Bank reported the following story about a man from Selimbad village who was not a Grameen Bank member.

Md Jalu Sheikh worked as a daily labourer making bamboo stools. He had a large family with five sons and four daughters, but lived comfortably. A married daughter and her family lived with him. During the flood the house was inundated and ruined. The 13 member family took shelter on a nearby highway. They had no source of income, nowhere to borrow from, and little or nothing to eat. Jalu could not bear the sight of his childern starve and attempted suicide, but friends and family found him in time.[4]

Microfinance providers were affected in many ways, including:

- loss of income through repayment of interest,
- shortfalls in cash for new loans due to delayed repayments, drop in savings, and withdrawals of savings,
- unavailability of grant or loan capital during the crisis,
- client drop outs from groups,
- erosion of their capital base,
- difficulty in paying back institutional loans (borrowings for loan fund), and
- problems in meeting operating expenses.

The results of the Credit and Development Forum (CDF)-South Asian Network of Micro Finance Initiatives (SANMFI) rapid assessment[5] found that more than 60 per cent of the branch operations of NGOs providing microfinance services were affected, with operations having ceased for over 60 days. As field operations had to be ceased for weeks, many small organisations that had lent out most of their loan capital, consisting primarily or solely of members' savings were almost wiped out.

Repayments were also going to be adversely affected with projections for the flood period estimated at about 60 per cent whereas in June the repayment for the sector was 92 per cent. The loss of interest income was estimated at 54 per cent whereas in June it was only 5 per cent. The shortfall in cash for new loans increased from 18 per cent in June to an estimated 53 per cent in September. Although portfolio at risk could not be calculated for the sector as a whole, based on the figures for BRAC (20 per cent of total portfolio), Proshika (30 per cent) and Grameen Bank (50 per cent), the figure could be as much as 30 per cent, i e, US $5 million at risk for these three institutions alone.

Impact on Grameen Bank

Grameen Bank, the country's largest non-governmental microfinance service provider,[6] reported that 58 per cent of its centres were affected by the flood or which 42 per cent were declared 'disaster' centres. For Grameen Bank,[7] the 1998 flood was an opportunity to demonstrate the effectiveness of the micro-credit system in helping the poor to get back on their feet. Grameen Bank claims that it is institutionally equipped to cope with disasters. During the peak period of the 1998 flood, Grameen Bank suspended repayment collection and savings mobilisation in those Grameen Bank centres that were declared 'disaster' centres. It then established the needs of its members by having bank workers conduct evaluations – whether they required cash to purchase food, medicine, clothing, and materials to re-build homes. Cash and assistance in kind were provided on the basis of the evaluations. Also, members were permitted to withdraw up to 100 per cent from the Group Fund Savings. The Centre Disaster Fund and Centre Welfare Fund were expanded to meet the needs of those most seriously affected. These funds were provided as interest free loans.

Grameen Bank also provided relief aid to its members in severely affected areas by distributing drinking water, oral-saline, alum and water purification tablets. In order to prevent and contain health problems during the post-flood period, the Bank formed medical teams hiring local doctors to provide treatment and medicine to members and families. Grameen Bank workers ensured weekly contacts with all members to maintain morale. Bank workers went by boat to all members' houses in areas where centre meetings could not be held. In worst affected areas, cash consumption loans were immediately provided to those in need and repayments were rescheduled on a case by case basis.

Grameen Bank set up a Disaster Mitigation Task Force at the Bank Headquarters to collect information from the field. The information was compiled, analysed and disseminated by Headquarters to the different zones with the objective of informing policies for present and future flood management. Zonal Managers were convened to develop rehabilitation strategies, including discussions on new loan products, housing rehabilitation and agricultural rehabilitation programmes.

Reports showed that 157,000 (7 per cent of total active membership) had to seek shelter as their homes had been lost or seriously damaged. Bank workers motivated members to return to their homes, and informed them of the Grameen Bank's Housing Rehabilitation Programme. For those who required loan assistance for repairs, Grameen Bank provided supplementary loans to those who were already receiving housing loans as well as new housing loans. For those whose homes had been destroyed fresh housing loans were issued, with a flexibility to start repayments in January 1999. Since most Grameen Bank members are involved i the agricultural sector, Grameen Ban supported the revitalisation of the agri cultural sector as soon as the floods ha receded, by distributing half a millio vegetable seed packets procured from th Grameen Krishi Foundation.

As the flood waters receded and th situation began to normalise, the Ban began to resume its normal activities suc as centre meetings, collection of saving and gradually the repayment of loan Members continue to receive medical treat ment, with a focus on children. Grамee has also secured the support of the Govern ment Livestock Department to provide vaccination programme for cattle, poultr and ducks. Rehabilitation programme such as tubewell repair and maintenance sanitation drives and encouragement o vegetable cultivation have also bee initiated. Grameen Bank estimated tha it would be on the road to recovery b December 1998.

Grameen Bank has reported that as result of this flood, the Grameen Ban disaster fund has been totally deplete The Bank has declared that it will nee as much as US $100 million[8] to ensur full recovery.[9] The Bank claims that it i not sourcing grants, but will be seekin low cost funds from local and internationa sources. The Bangladesh Bank has com mitted about US$46 million to Grameе Bank. The Bank has also appealed to PKS for assistance.

Impact on Microfinance Industry

The microfinance industry includes wide range of service providers includin specialised poverty lending institution (Grameen Bank), NGOs (ASA, BRAC Proshika BURO Tangail, Shakti Founda tion), co-operative banks, international an local government supported microfinanc projects, and private organisations provid ing microfinance services to the poor. Al these microfinance providers, big and small were affected by the floods. All of then reported significant losses of capital at th institutional level, and reported heavy losse at the level of their clients' households.

The most critical need for the industr was capital for making fresh loans for th rehabilitation of the loan programme, i order to jump start their clients, and ge them back on track. Whilst during th 1988 floods, grant monies were not difficul to procure, this time there was a shortfal of grants in the market. The delays i making a formal announcement of a dis aster situation did not help. Nonetheless donors, government and non-governmenta agencies came together to take action.

Given the drop in donor flows withi

Bangladesh, NGOs were finding it difficult to find the necessary external support. Despite the gravity of Bangladesh's disaster situation, donors found it difficult to respond in a satisfactory way given competing claims for flood relief from East Asia, assistance to mitigate the financial crisis in South East Asia, and increasing claims from Africa and Eastern Europe. In the period after the floods, the Central American disaster added to competing claims.

In this highly competitive environment for donor support for relief and rehabilitation aid, the larger NGOs, such as BRAC, Proshika, and Grameen Bank were able to secure some amount of assistance, although not the entire amount. These NGOs also have disaster funds and reserves they can draw upon. It was understood that even if the larger and more established NGOs were not able to fund-raise for their entire claims, these organisations would be safe because the donors who have supported them over the years would ensure that these organisations did not go under.

However, the situation was particularly difficult for small- and medium-sized NGOs as they have fewer donor relations. Most grass roots NGOs face constraints in fund raising as they are not based in Dhaka, lack access and lack the ability to draft complicated applications expected by donors. They also do not have the image of larger or Dhaka based institutions. It was clear that the development community did not have much choice, but to contribute to the rehabilitation of the microfinance sector, partly in order to prevent a crisis of confidence in the sector.

It can be argued that since the top 20 NGOs account for as much as 85 per cent of total outreach and volume of microfinance, the small- and medium-sized NGOs are of little consequence. Yet in absolute terms, the remaining 15 per cent account for at the very least one million poor families. There is a social responsibility to these poor for the safety of their savings, the future of their families and also to the NGOs that provide essential services to these poor.

Action within the Sector

Despite the gravity of the situation, there was general agreement within the microfinance sector that it would work together to ensure that the government did not advocate for loan forgiveness. It would insist on maintaining discipline in existing microfinance programmes. There would be efforts made to assess the true extent of losses to assess damage and need for bail out and then make provisions for capitalisation depending on size and nature of institution. There would be a genuine effort to identify 'good' organisations from 'bad' with an effort to capitalise 'good' organisations.

Long-term actions would include an action to turn 'disaster' into opportunity, by consolidating the industry and focusing on minimum standards for MFIs. The industry would develop and agree on minimum donor and government standards for supporting microfinance initiatives. There would be efforts made to develop a coherent sector strategy to address disasters in the future.

Given the need for greater information to inform appropriate action, a number of donors, NGOs and academic institutions, initiated rapid assessments conducted on the impact of the flood. One such initiative was the CDF and SANMFI joint study supported by the Local Consultative Group Sub-group of Donors for Microfinance.

The CDF-SANMFI study found that the microfinance sector in Bangladesh has the commitment and the capacity to heal itself and move forward. Performance in the sector was reasonably sound prior to the flood and until the time when operations ceased. Unlike previous experiences where the government called for global moratoriums and loan forgiveness, this time microfinance providers across the sector, including the commercial banks and government agencies advocated sound policies for the post-flood rehabilitation period. Most NGOs advocated for no loan forgiveness and moratoriums only in selective cases, with no more than one month. Rescheduling would be only on a case-by-case basis for no more than one year. Acknowledging potential defaults due to the situation faced by their clients, the NGOs anticipated potential write offs, but committed themselves to making significant efforts to help their clients recover and in turn recover the loans.

Once the waters receded from their areas of operations, MFIs quickly resumed field operations responding to clients' requests for new loans to revitalise their home economies. However, such responsiveness towards progress and rehabilitation depended largely on the availability of fresh funds for the sector. The real need within the sector was to meet the financing requirements of clients before the next agricultural season. Fresh loans from the MFI sector would enable clients to re-establish economic activities quickly thereby reducing arrears and default. Loans from the sector would also reduce dependency on moneylenders who would otherwise be the sole source of working capital.

While there was no absolute figure for the funds required for capitalising the sector, it was estimated that the NGOs collectively, excluding Grameen Bank, would require as much as US $100 million. There was also strong sentiment that donors should consider the establishment of a separate 'Disaster Fund'. The governance of such a fund would have to ensure the interests of the smaller and medium sized MFIs.

Looking Beyond the Crisis

CDF as the national level network for microfinance practitioners would facilitate the interests of the sector as a whole, emphasising the needs and interests of smaller NGOs. CDF would also assist in setting performance standards among these smaller organisations and work with the microfinance industry to develop better disaster mitigation strategies. CDF and SANMFI will be conducting a follow-up needs assessment which will be published in May 1999. The study will also attempt to create a rationale for a Disaster Fund for the microfinance sector in Bangladesh, as well as the appropriate modalities for disbursement and replenishment.

Notes

1 *The World Bank Economic Update* (November, 1998) cited in *The Financial Express*, Dhaka 'WB Predicts Slow Growth in All Sectors of Economy This Fiscal', November 18, 1998, p 1 and 12.

2 Paper presented by Dipal Barua, general manager, Grameen Bank, entitled 'The Grameen Strategy to Combat the Flood of 1998', October 1998.

3 UNDP Bangladesh Assessment, 1999.

4 Reported by Md Abdul Khair, zonal manager, Grameen Bank on September 21, 1998 District: Rajshahi. Volunteer translator: Bitalie Islam. The Poverty Research Unit of Grameen Bank co-ordinated an effort involving all the major NGOs to record over 2,000 cases of flood victims from all over Bangladesh.

5 These figures are based on estimates reported by NGOs during the peak period of the flood in September 1998 SANMFI, CDF and the MFIs will work to update and verify these figures over the next year as the sector rehabilitates itself.

6 There are other governmental programmes including the Bangladesh Rural Development Bank (BRDB) programme that have a larger cummulative outreach.

7 All information on Grameen Bank is from the paper entitled 'The Grameen Strategy to Combat the Flood of 1998' by Dipal Barua, general manager, Grameen Bank, October 1998.

8 Reports from Grameen Bank, interviews with Grameen Bank pesonnel, World Bank assessment and PKSF assessment.

9 In assessments conducted by CDF and SANMFI in September 1998 as well as a study conducted by the World Bank and PKSF, it was estimated that the other NGOs in the microfinance sector would collectively require less than US$100 for rehabilitation

Hindi Literature as a Political Space

Marwari Women's Fiction in Calcutta

Anne Hardgrove

By looking at non-Bengali writing in Bengal, this article attempts to confront the bias in the way that the Bengali 'bhadralok' have implicitly set the norms for other communities, like the Calcutta marwaris, whose lives are shaped by ideologies quite different than their socially-distant Bengali neighbours.

THIS article addresses the topic of Constructing Femininities in Bengal by examining the interplay between the production of sentiments, feminism and history in two short stories of the Calcutta marwari writer Alka Saraogi. In analysing the production of sentiments and their use of feminism and history, I attempt to examine the relationship between ethnography and literature, and consider how works of fiction can be a productive site to illuminate objects of anthropological analysis.[1] It is worthy of mention here that Saraogi comes from the marwari community of Bengal, a community of traders and industrialists often defined as the 'others' of the less business-minded Bengali bhadralok. By looking at non-Bengali writing, I attempt to confront the bias in the way that the Bengali bhadralok have implicitly set the norms for other communities, like the Calcutta marwaris, whose lives were shaped by ideologies actually quite different than their socially-distant Bengali neighbours.

Even though literature arguably engages in aestheticising experience, it has the advantage of highlighting, spotlighting, and even exaggerating sentiment as a key component of the narrative. As such, literature can make sentiments the object of analysis for the anthropologist. Literature documents the work of sentiments, while out of necessity magnifying them, and thus makes them visible to the reader. The sentiments expressed here are not necessarily invented ones, for their effectiveness comes from their quality of being shared by the author and the reader. The intersubjective hermeneutic between the author and the reader is what makes such sentiments documentable.

It is in this sense that I take short stories, novels and fiction in general to be defensible primary texts for ethnographic consideration. I am not making an argument about the readership of the stories, and whether or not Saraogi's work has had a prescriptive effect on the lives of north Indian and Bengali women.[2] I am more interested here in the way that the relationship of marwari women to the past is revealed in the stories as the main character's sentiment expressed towards older family members. This approach therefore puts aside questions of readership and the overall social impact that Saraogi's stories might have on a larger reading public.

The two short stories are published in a collection entitled *Kahani ke Talash Mein* ('In Search of a Story').[3] The first story, entitled 'Lal Mitti ka Sardak' ('The Red Dirt Road') discusses a woman named Vandana's experience in taking short trip away from her husband and children, when she accompanies a female friend to a Bengali resort in Santiniketan. Vandana, the protagonist, lies restlessly in bed early one morning, unable to sleep because of the nervous thoughts circulating in her head. Vandana contemplates the guilt she feels by temporarily leaving her family to go off with a friend. Conversations she had with her son before departing for the station replayed themselves in her mind:

> "Mommy, did grandmother ever leave you like this, the way that you are leaving me?" Surprised at this unexpected question, she fell silent.
>
> Suresh, her husband, quipped. "Your Mom is modern, pal!!" Was there some irritation behind the way that Suresh was joking around?
>
> "No Bittu. No one can become modern by putting on airs. And see, when you grow up, then you will do a lot of things which I have never done. In this way everything keeps changing all of the time. I am not like Grandma, and in the same way you are not like me." Vandana said this in a confident tone without any expression on her face.

In this poignant vignette, Saraogi demonstrates the way that different generations of a single family can encounter modernity. Vandana's son points to the standards of the past in expressing his emotions, asking if grandmother had ever done this to her. Vandana's husband, on the other hand, tries to make a joke out of her modernity which will placate the son but perhaps add to the guilt that Vandana is meant to be feeling. Against these familial claims on her, Vandana must find a way to negotiate the guilt that her son and husband place on her for leaving them, if only for a couple of days. In her clever response about "everything changing all of the time", Vandana points out the way that the reproduction of gender roles never remains as constant throughout historical time. Instead, the definition of appropriate behaviour for kinship roles is always generationally relational to the seemingly personal experience of modernity.

But the emotional pain felt in the experience of expressing resistance to tradition is one that stayed with Vandana throughout her adult years. A second excerpt from the same story, also a flashback memory, relates back to Vandana's teenage days and documents the family's management of the so-called 'pollution'

associated with the taboo of women's menstruation. Vandana, her mother, her sister, her grandmother and her father were sitting around in the living room, relaxing and talking. Vandana's mother whispered to her,

> "Look, for two days don't sit on the bed and don't touch anything. Spread out the mat and sit on it, and at night take out the blue silk sheet and sleep on it. You understand, don't you, just as your older sister does, huh?" Mom whispered in her ear very responsibly. Vandana thought about the secret of the mat and the blue sheet many times, but without knowing everything she could not reach any decision. When she asked her older sister about it she became very irritated. As soon as their mother went away Vandana climbed into the lap of her sister and went to sleep on the bed.
>
> [Vandana said] "I will not sit on the mat, nor will I sleep on this sheet, and when I touch you, you will become polluted yourself. Now what will you do?" Grandma sat quietly and ran her fingers through Vandana's hair.
>
> [Her father said to the grandmother] "Mother, what is this, aren't you going to explain it to her? What are you doing? She is touching everything." Vandana became very startled at hearing her father's words. Does he want things to be like this?
>
> "Now, she is only a girl, slowly she will begin to understand, son." Grandmother ignored her son's rebuke. Months and months passed like this. But in spite of the displeasure of her mother and father, she stood firmly on her decision, with the support of her grandmother.
>
> In the end her older sister also protested, "What is this? Different rules for her and different rules for me." At first Vandana's protest was successful, then it became clear that her weaker position had intelligence as its only weapon, and this was a very unstable base. Vandana eventually became so insulted that she lost her stubbornness and afterwards she just always went along with her father's will.

One can easily read this account as Vandana's expression of feminist resistance to her father's patriarchal insistence on the secret of the mat and the blue sheet. Climbing onto her sister's lap, sleeping on the bed, announcing loudly that she will intentionally touch things and pollute others during her period are part of Vandana's understandable guerilla tactics to foist change onto her family. What is more surprising about the story is Vandana's intergenerational source of allies. The sister, after all, takes her time in coming to Vandana's defence, let alone adopting these strategies for herself. Mother and father represent the patriarchal status quo. While running her fingers through Vandana's hair, the grandmother is the one to support and defend her in the present, interestingly enough, and does not necessarily champion tradition in the threatening face of modernity. Admittedly; the grandmother's alliance with modernity may not be permanent, and she does not claim that Vandana will always be this way. "Slowly she will understand, son."

This intergeneration component suggests new ways to think about the relationship between the forging of Indian feminisms and the construction of the past. The nuclear family has been characterised as modern and fundamentally progressive, in its presumption of newness and breaking ties with the past. Yet the feminism articulated in the stories does not form a revolutionary break with the past. Instead, Saraogi's story highlights how sentiment itself holds together the present and the past; in the form of solidarity between the grand-daughter and grandmother. This alliance with the past, rather than a struggle against it, creates an affective relationship to the past which is expressed as practices of emotive affect, with the grandmother "running her fingers through her hair". The figure of the grandmother represents the affect of kinship inherent in constructing an emotive present in relationship to a lived past.

The second story, called 'Ek Vrat Ka Katha' ('The Tale of a Fast') narrates a woman named Amita's practices of ritual fasting, known in Hindi as 'vrat' (literally, vow). This particular fasting day was called 'bachwaras', a day when Hindu women would fast for the well-being of their sons. Amita, the main character, recognised the importance that her mother-in-law placed on keeping the fasts, so she followed the rituals just to keep her mother-in-law happy. But Amita's habit of feeling hungry as soon as she got up always caused her trouble on the days of fasting, and she would sometimes forget about the fast and mistakenly have something to eat. Her mother-in-law tried to quell her habit of eating right when she got up. The mother-in-law told Amita that it was the duty of women not to eat before men, and that she should eat only after all of the male members of the household had eaten. Amita had hardened herself from such unspoken disapproval from the very beginning and never waited for her husband to eat before her. She could not imagine living life the way that her mother and mother-in-law had done, being incapable, she felt, of raising any objection. How could they tolerate so much?

That bachwaras' day Amita fought with her brother-in-law, with whom she generally shared a close joking relationship, about not making him a hot breakfast when all of the women were fasting and could only eat cold roti (chapatis). Amita jokingly told him that he should just have the cold roti, and he became very upset. After Amita angrily told him to grow up if he couldn't take a joke, the brother-in-law stormed off without eating breakfast. I now quote from the final paragraph of the story.

> Saying this Amita looked over to her sister-in-law and her mother-in-law for support. She thought that her mother-in-law would scold him for getting so angry about such a small matter, but who knew how many untold complaints were written on her expressionless face. She thought that her mother-in-law was reliving some old event in her mind. The sister-in-law put her head down and kept on eating. In Amita's loneliness her heart felt as dry and heavy as the flour in the rotis.

One of the points that Saraogi is making here is to show the loneliness of Amita which results from her resistance to the codes of womanly behaviour which both her mother-in-law and her sister-in-law promoted. The sister-in-law, after all, was jealous of the close joking relationship which Amita shared with her husband. Her mother-in-law and her sister-in-law do not join her in a sisterly alliance against patriarchal norms. Instead Amita's behaviour at least temporarily alienates her from everyone else in the family. For Amita, the experience of negotiating modernity became a prison sentence of emotional isolation.

I do not relate these two stories to suggest that Saraogi's community milieu is more patriarchal and oppressive than the average family in Bengal. What is interesting about her approach, however, is in how Saraogi depicts the production of sentiment in conjunction with an engagement with both feminist values and history. Rather than attempting to promote specific changes in women's lifestyles, Saraogi attempts to articulate the emotional turmoil of a young woman who seeks to make subtle but significant changes in the practices of their domestic lives. By portraying an engagement of micro-practices of feminist 'social reform' within the intimate site of the household, Saraogi sensitively captures the nuances of emotional distance, and deep resentment, which go along with the challenges to patriarchal familial authority.

The two stories that I examine here confront themes of the empowering uses

relationships, while also examining the predicaments implicit in the changing values found in modern conjugal relationships. At the same time that these stories question the relevance of male viewpoints in reflecting women's experience, they also raise questions about the predicaments of modern feminism for women living in kinship networks and family life. The stories do not just sentimentalise the intergenerational relationship. They document a complex set of intergenerational and gendered relationships. The importance of relying on the support of the grandmother, and in the second story the mother-in-law, allows the practice of everyday feminism to have a relationship of positive effect with the past, and can draw upon it for strength. In this sense, tradition is not so separate from modernity.

There is a critique of patriarchy in Saraogi and many other women's writing, focusing on sentiments of her character's hurt and disappointment in their internal life. For Saraogi, social reform, or social change, does not necessarily imply revolutionary

the march to the modern. There are more subtle tropes employed here, of compromise, hurting, accommodation, and resistance, and not just revolutionary acts, which determine how social arenas – such as the family – are changed. I do not claim that this aspect of Saraogi's work is necessarily unique. But what I find particularly suggestive, however, is the way that the accommodation of change does not belong to merely the youngest generation who throws out the past. The generations effecting change are linked with the past, in the figure of the grandmother, who despite being old is not irrelevant in the formation of the new.

Within Saraogi's stories, we can see the work of sentiments as practised in kinship, breaking down the distinction between modernity and tradition. This production of sentiment, I argue, is fundamentally concerned with articulating the presence of the past in effecting social change. The conversion of the past into memories of affect in these stories pluralises feminism in that it seeks to effect gendered and patriarchal practices without necessarily

The way that this writing allows us to hold onto the past is empowering in that it serves as a source of sustenance for effecting change for the present.

Notes

1 Kirin Narayan (1994) has been inspirational in this regard.

2 Harish Trivedi (1998) has contended that Saraogi's work, like most writers, is essentially written for literary critics, and is not necessarily meant for a much larger and imagined reading public.

3 I might add here that the translations from the Hindi originals are my own, done in consultation with the author.

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Investment in Agriculture and the Globalisation Syndrome

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Studies in Agricultural Investments and Rural Savings by B D Dhawan; Commonwealth Publishers, New Delhi, 1998; pp 236, Rs 425.

IN the current euphoria about liberalisation and globalisation of the Indian economy, the agricultural sector has taken a back-seat. Or have 10 successive good monsoons made policy-makers complacent about agricultural growth prospects and food security? The *Economic Survey 1995-96* was distinctly upbeat about the outlook for foodgrains production: "Rice and wheat are emerging as major export products. Quantitative ceiling and minimum export price in respect of rice have been abolished. To further enhance exports Food Corporation of India has been permitted to export/sell for export 3 million tonnes of fine/superfine varieties of rice. Export of wheat up to 2.5 million tonnes in case of non-durum wheat and 0.5 million tonnes in case of durum wheat has also been permitted" (p 41). This illusion of surplus in 1995-96 was shattered by the end of 1996 itself and we had to import 2 million tonnes of wheat on an emergency basis. Even the logistics of importing such a large quantity in a short span of time were formidable. Public sector investment in agriculture in real terms declined from Rs 1,796 crore (at 1980-81 prices) to Rs 1,154 crore in 1990-91 and this decline continued for the next three years. Simultaneously, public sector banks consistently defaulted on the priority sector credit target of 40 per cent of net bank credit as also on the sub-target of credit to agriculture of 18 per cent. The share of priority sector advances declined from 41 per cent before 1990-91 to some 37 per cent in 1995-96. The Reserve Bank of India not only winked at these defaults but also put the overhauling of the moribund rural credit delivery system on the back-burner. The neglect of the agricultural sector by policy-makers was thus complete.

It is against this background that B D Dhawan's collection of eight research papers included in this volume needs to be appreciated. We need many more Dhawans to din into the ears of policy-makers the critical importance of the agricultural sector to the growth of the Indian economy, notwithstanding the globalisation syndrome.

Dhawan marshals statistical data to prove that the annual rate of growth of fixed investment in agriculture – that is, investment in agricultural machinery, farm implements, irrigation works, land improvements, etc – in real terms was negative during the 1980s, in contrast to a positive rate of 5 to 6 per cent recorded during the earlier period. More disturbing is the finding that fixed farm investment by the public sector declined at the rate of 3 per cent per year during the 1980s, in sharp contrast to the growth rate of 7 per cent recorded during the 1970s. Preliminary estimates for the 1990s indicate that this downward slide has been arrested but there are no signs of an upward swing.

The main theme of Dhawan's papers is that in agriculture public investment stimulates private investment. In fact canal irrigation and private capital formation in agriculture are well correlated (r = 0.65). More specifically, the elasticity of private fixed capital formation in agriculture with respect to canal irrigated areas is of the order of 0.25. The bulk of public investments in Indian agriculture are for the purpose of development of the irrigation infrastructure. Since nearly three-fourths of the irrigated area is devoted to production of foodgrains by farmers, public investments in irrigation are determined, *inter alia*, by the government's concern about food security.

The perception of governments – both the centre and the states – about food security must now change. More recent studies have warned about the impending rice crisis in Asia. The world rice market is relatively small and hence even if India has adequate foreign exchange, it may not be able to import the quantities of rice required in times of crop failures. In addition to food security considerations, there are several macro-economic reasons why the agricultural sector should continue to receive priority in the future strategies of growth. The ratio of dependence on agriculture has not declined, although the share of agriculture in GDP has declined from some 60 per cent in the 1950s to about 30 per cent in the 1990s. Moreover, a 4 per cent growth in the agricultural sector alone can facilitate the attainment and sustainability of a 7 per cent growth in overall GDP. It would have greatly enhanced the value of Dhawan's study if these macro parameters were also encompassed in his competent research papers. In any case one hopes that this study will have a salutary impact on policy-makers.

In terms of determinants of public investment in agriculture, Dhawan emphasises three factors. First, net borrowings of the state; second, financial surpluses emerging in the revenue account of state budgets; and third, relative share of the agricultural sector in total fixed capital formation in the Indian economy on public account. The third factor reflects, according to Dhawan, government 'preference' for agricultural investment *vis-a-vis* investment in other sectors. The reviewer, for one, would demur. Whatever may have been the empirical evidence, in the post-1991 phase it is governance, both at the government and banks/financial institutions levels, that has affected the flow of resources to the rural sector. I have dwelt with this theme at length in this journal (*Economic and Political Weekly*, November 21, 1998). Even in March 1998, advances by public sector banks were less than 16 per cent of net bank credit, as against the target of 18 per cent. There is a mountain of liquidity accumulating with the banking system but the mindset of bankers is preventing its flow to the agricultural sector even up to the targeted level. A more conspicuous example, directly relevant for the present purpose, is the Rural Infrastructure Development Fund (RIDF) which was constituted at NABARD in April 1995 with a corpus of Rs 2,000 crore for giving loans to state governments and state-owned corporations for quick completion of ongoing projects relating to medium and minor irrigation, soil conservation, watershed management, and other forms of rural infrastructure. Subsequently, RIDF II and RIDF III were established during 1996-97 and 1997-98, each with a corpus of Rs 2,500 crore. The union budget for 1998-99 made an enhanced allocation of Rs 3,000 crore for RIDF IV. While thus ample resources are available what is the record of their utilisation? The data provided by the Reserve Bank of India show that the performance in respect of utilisation is dismal: for instance, in 1996-97 utilisation was lower than 50 per cent and in 1997-98 utilisation slipped even lower to only 10 per cent. Could there be a better example of lack of governance, both at the state governments and the institutions levels? Projects are languishing not because

of lack of resources *per se* but because of our ineptitude in making optimal use of available resources.

Be that as it may, Dhawan deserves to be congratulated for producing this scholarly treatise which provides valuable insights into the processes of saving and investment in the farm sector.

UP Politics through Marxist Lens

Anirudh Deshpande

Quest for Power: Oppositional Movements and Post-Congress Politics in Uttar Pradesh by Zoya Hasan; OUP, Delhi, 1998; pp 280, Rs 445 (hardback edition).

THERE are certain trans-historical generalisations which are necessary for the construction of social science. For instance, the model of dialectical materialism suggests that historical change is predicated upon social contradiction. The struggle for power and hegemony is central to this holistic formulation. Historical materialism also asserts that a mode of production changes primarily because of the contradiction between its relations and forces of production. Hence, from the Marxist viewpoint, social contradiction, systemic change and questions of power comprise a staple for the social sciences. It is easy to locate Hasan's synthesis of political science, political economy and history in the Marxist tradition. But why choose a 'cow belt' state to test the Marxist theory of class-caste struggle in India? The answer to this underlines the specificity of the author's project. Uttar Pradesh (UP) cannot be ignored by any serious discussion of Indian politics because the magnitude of "political changes in UP have profoundly affected political discourse on a national scale" (p 218). UP has obviously been selected for the following reasons. Firstly, because it was the epicentre of centrist politics till the 1970s, and the decline of the Congress in it symbolises the nationwide decline of centrism. This eclipse, despite the recently held September Panchmarhi conclave, appears more than transient. Secondly, the social manifestation of economic change, and its translation into a class-caste power struggle, is well documented and clearly visible in UP. And finally, at least in the short run, hindutva has apparently triumphed over Mandal in UP. In the long run what happens to the Sangh parivar-BJP nexus in UP could well decide the future of hindutva in the rest of the country.

The book comprises six chapters including an elegant introduction and a concluding note called, 'Interpreting Political Change'. The 'Introduction' contextualises the author's problematic by claiming that hitherto political scientists have generally paid less attention to the 'non-institutional processes' like class, caste or community in their analyses of social change. However, to account for these categories and the 'non-party movements' in India political scientists are advised to understand the segmentary character of Indian society and its politics based on social cleavages. This is crucial for political science primarily because the Indian state, the subject of Indian political scientists, assists the politics of differences. This happens because the state, by virtue of being an organisation of the ruling elite, "can more easily deal with the demands for more resources or jobs raised by non-class ethnic politics, than the structural changes implicit in the demands made by radical class movements" (p 3). But this "drama of social and political change in contemporary UP" is not merely about political science or the changes necessary to make it sociologically dynamic. It deals with the cardinal concerns of political science by offering the reader an enjoyable and sensible mix of politics, economics, sociology and history.

The 'Introduction' points towards all this by focusing sharply on the salient features of UP's contemporary history. Our attention is drawn to (a) the decline and decimation of the Congress in UP, (b) the changing nature of the state and oppositional movements in UP and the emergence of hindutva as a major political force and (c) the problems of the intermediate castes like the jats, lower castes like the OBCs and the dalits and their conflict with the brahmanical order supported by the right wing Congress leaders. Beside this, the class-caste nature of UP politics is defined with reference to the near absence of an urban bourgeoisie in the state. Politics in UP, we are told, is dominated by a well spread, narrow minded and largely Hindi speaking lower middle class which dominates the small towns and cities of this economically backward state. These factors combined with the emphasis on uneven development, industrial and educational backwardness and the broad failure of the relations of production and power to accommodate the growth of new socio-political forces in UP introduce a promising Marxist model. However, the comprehensive Introduction does not answer two important questions. The first is about the BJP. We do not know whether the BJP wants to change the nature of the Indian state or gain power and work within it. The second is about the petty bourgeois nature of communalism in India. This is problematic because the BJP and its allies have also come to power in industrially more advanced states like Maharashtra and Gujarat. What role has big business played in the emergence of majoritarian communal alliances in these states?

Chapter one, 'Social Conflict and Political Discontent: The Historic Decline of the Congress', maps the central problematic of the book. Right from 1947 the Congress contained the secular-liberal, socialist and conservative-Hindu strains and historians would argue that these contradictions were a legacy of the freedom movement. It is well known that in UP the upper caste dominated conservative-Hindu group triumphed at the cost of the Congress centrists and socialists. This led to the dilution of the Nehruvian project in UP, the ultimate ghettoisation of Muslims, the practical neglect of the dalits and the dominance of 'status quoist' leaders like G B Pant, Sampurnanand and C B Gupta over the party apparatus. In Hasan's view this happened largely because of the communal effect of the partition and the transformation of the Congress from a party of movement to a party of government. This meant that democratic dissent, reflective of non-conservative ideology and social groups, could find political expression in UP only outside the Congress Party. As a consequence, by 1967, a number of anti-Congress forces had appeared on the political scene in UP to seriously challenge the upper castes who were ruling the state in the name of Congress centrism. But why could the secular and left inclined Nehru not anticipate and pre-empt the domination of the UP Congress by the Hindu reactionaries given the fact that the Congress was a highly centralised party and Nehru's prestige in it was immense?

The upper caste Congress leadership, in general, failed to comprehend the growing importance of the socio-economic forces which were producing these anti-Congress formations in UP. The 1947-67 period was characterised by the growth of a new rural elite comprising the middle castes like the jats led by Charan Singh and the better known OBCs often organised by the Lohia socialists. These castes, often as long standing tenants of the feudal and absentee landlords, owed their rise to the first stage of land reforms called zamindari abolition. On the other hand, discontent kept rising unchecked in the urban petty bourgeoisie as a consequence of insufficient industrialisation, soaring prices and unemployment. But the Congress leadership tried to deal with these developments by

continuously relying on a coalition of brahmins, Muslims and scheduled castes. By the end of the 1960s the upper caste-classes were coming under tremendous pressure from the newly ascendant groups on all the socio-political fronts. This happened despite the left-populist measures taken by Indira Gandhi in 1969 like the nationalisation of banks and abolition of the privy purses. In the meantime, the party became authoritarian and over-centralised under Nehru's daughter and hence incapable of coming to grips with the new ground realities in UP. The failure of the Congress to evolve a KHAM (kshatriya, harijan, adivasi plus Muslim) type strategy in UP was predicated upon the unchanging nature of the party in UP under the central leadership of the Nehru-Gandhi family. This assertion will help revise the opinion, prevalent among sections of the left and some old Congressmen, that the party's slide in UP began after Indira Gandhi assumed control over it in the late 1960s.

While the socio-economic conditions in the 1960s in UP, as in the rest of the country, deteriorated, their political manifestations assumed alarming proportions in the 1970s and the 1980s. Certainly, at the subaltern levels of society, change was occurring although the political class and a corpulent administration were insensitive to it. In the rural areas the dalits were becoming more assertive and the upper and backward castes were trying their best to suppress them. As the movement for the abolition of begar and minimum wages grew, violence erupted in the countryside on a large scale. Communal violence also escalated as the ruling classes tried to divert popular attention from the real causes of discontent. In the 1970s a Muslim entrepreneurial class, helped by the Gulf boom, began to make its presence felt in the towns of UP. This directly threatened Hindu trading interests and their traditional links with the Muslim artisans. The consequence was a sharp increase in communalism and communal riots. But the government, instead of addressing the real issues in the state, made matters worse by using the highly partisan PAC to teach the Muslims a lesson. Things did not change even during the days of a so-called modernist like Rajiv Gandhi who received a massive mandate in 1984. Indeed much before the rise of Mulayam Singh Yadav, violence had "become a way of life" in India's most populous and agrarian state. These class, caste and communal conflicts were caused and nourished by the extreme economic backwardness of the state and the monopoly exercised over state power by the upper caste elite. These crucial historical indicators find painstaking statistical corroboration and empirical documentation in Hasan's sumptuous narrative which debunks the long-held 'savarna' myth that the administrative decay in UP was caused by the policy of reservation. Finally, the stunning defeat of the Congress in 1989 exposed the short-sightedness "of running with the hare and hunting with the hounds".

In the 1970s and the 1980s as the Congress decline continued virtually unchecked, oppositional politics were being forged firstly by those social groups which developed a close relationship with the process of land reform in the state. Many of these groups wanted a larger share of state power for obvious reasons but found their way blocked by the Congress inclined upper-caste/upper-class elite. Which social segments comprised these groups? What were the issues on which they organised anti-Congress political movements? And what was the consequence of these movements? These important questions of Indian social history are answered in chapter three and four of the book. Chapter three, 'Agrarian Change and Rural Unrest: Farmers in the Forefront', critically surveys the land reform process in UP and the emergence of the jat peasantry as a significant section of the rural "surplus producers", i e, the "agrarian bourgeoisie" enjoying subsidies, tax concessions and the benefits of the green revolution.

The Congress tried to counter the growing influence of these peasant proprietors by trying to marshal the support of the rural poor but the failure of distributing surplus land put paid to these half-hearted attempts. Since the Congress leaders were often the worst enemies of land reform, the party ultimately became unpopular among the peasants as well as the rural poor including the marginal peasants and landless labourers. In short, by the late 1970s, as a consequence of zamindari abolition and the green revolution, a powerful rural bloc dominated by the middle and backward castes had emerged in large parts of UP. Led by men like Charan Singh in the late 1960s and 1970s and Mahendra Singh Tikait in the 1980s, these "surplus producers" of western UP gradually demolished the Congress in UP. However, the battle for power between the Congress and the farmers was a matter of class and caste realities as well as hegemonistic perceptions. The author has highlighted this fact by carrying out an appropriate class analysis of the peasant proprietor bloc. Although agriculture had not suffered in UP under Congress rule, and ironically the farmers had been produced largely by the Congress policies, it was advantageous for the new rural elite to paint it in dark shades. The perception that the Congress was pro-urban, pro-industry, anti-rural and stood for India *vis-a-vis* Bharat, was crucial to the consolidation of the rural bourgeoisie as an influential pressure group at the centre and in several states. But actually the farmers movement was deeply "class driven" and sensitive to caste issues which characterise the agrarian relations of production in India. That is why Tikait's movement, which excluded the landless rural poor, ultimately swung in favour of the BJP against the temporary coalition of social justice and rising dalit consciousness forged by leaders like V P Singh, Mulayam Singh Yadav and Kanshi Ram.

While the farmers were articulating their desire for power in western UP, in central and eastern UP, the OBCs (yadavs, kurmis, keoris and lodhs) and dalits began to assert themselves as important electoral and pressure groups. According to Hasan, backward caste and dalit mobility was predicated upon their social reform movements of the pre-independence period. But surely the second world war helped many OBC tenants by raising food and milk prices, and similar trends, mentioned elsewhere in the volume, continued after independence due to increasing population and urbanisation. Nonetheless by the 1960s and 1970s an elite among the OBCs had already crystallised. The story of the "combination of democracy and demography" is narrated in a remarkable overview of the politicisation of caste in chapter four aptly titled 'OBCs and Competitive Mobilisation: Recasting the Political Order'. There are some generalisations in this chapter about the caste-class system in UP worth noticing and the limitations of caste politics appear in the Marxist language of development economics. "Theories of social justice", we are told, "never involve redistribution of ownership of the means of production and private wealth or progressive taxation...caste pride and self-respect cannot go very far without roads and development...(and) in the absence of an alternative class politics or regional politics, the denting of upper caste dominance does not denote the victory of subordinate castes and classes" (p 163-65).

Understanding the caste-class structure and upper caste domination in UP is important to grasp the complex nature of OBC and dalit politics in the state. There are 42 per cent OBCs, 21 per cent scheduled castes, 16 per cent Muslims and 20 per cent upper castes in UP's population. But despite this break up, the upper castes form a cohesive 'ashraf' class against a large majority of the internally divided 'razil' class. These intra-OBC divisions have helped the BJP carry a substantial

section of the backward castes from the Mandal to mandir platform in the wake of the Congress decline. In 1947 the equation was as follows. The upper castes formed the sharif, upper class and educated elite whereas the lower castes comprised the razil, labouring, largely uneducated and tenant groups. In the 40 years since independence, the "hegemonic hold of the upper castes was more or less broken" in UP as a vocal section of the backward castes and dalits successfully raised the level of reservations in government jobs. But why was Mandal so obviously highlighted in UP? That is so because in an industrially backward state like UP the bureaucracy is an employment and privilege generating machine, and government jobs comprise the best avenue for a growing army of OBC graduates. It is rightly pointed out by the author that the purpose of reservation is a reduction in the traditional upper caste control of the state which is the chief vehicle of power, connections, upward mobility and ultimate hegemony in Indian society. However, reservation can also be viewed in the light of the changing nature of the ruling class despite the violence it has periodically provoked. It is also an attempt by the ruling class to perpetuate and broaden itself, and prolong bourgeois democracy, by co-opting pontentially rebellious groups.

In the context of the chapters reviewed above how can the rise of the hindutva forces in UP be finally explained and narrated? Chapter five, 'Ayodhya Movement and the Politics of Communal Compromise: The Struggle to Control Uttar Pradesh' and the concluding note do precisely this. Firstly, the decline of the Congress and its long-term policy of pragmatic communalism proved decisive in shifting upper caste-class loyalties to the programmatic communalism of the BJP. Secondly, the simultaneous rise of the OBCs, dalits and their potential alliance with the Muslims threatened the mythical unity of Hindu society favoured by the savarna castes led by the numerically and socially powerful brahmins in UP. This provoked a strong rearguard action among the cohesive upper castes of UP who, unlike their brethren in south India, chose to fight in the political battlefield under the saffron standard. But the roots of Hindu-Muslim communalism in UP are deeper and go behind the explosive mandir-masjid days to the unfortunate Hindi-Urdu controversy raised by a narrow minded and provincial intelligentsia and fanned by a Hindi-chauvinist regional press. This enhanced communal consciousness, distorted history, artificially divided the composite Hindustani language and culture and, sadly enough, completed the agenda of partition in democratic India. This helped create the "historical and political conjuncture" in India grasped by the communal forces in the 1980s and 1990s with the "specific project of capturing state power and remaking India politically and ideologically" (p 189).

Contemporary UP, like the rest of India, is passing through a transition reflected in its politics of caste and class analysed by Hasan's well-researched book. This kind of politics uses parliamentary democracy to good effect but simultaneously its potential to usher in progressive social change is limited. Its terms of reference appear self-limiting. The future, in the context of a fractured mandate produced by a politics of difference, seems predicated upon the ability of adversaries to exploit the differences in the opposition's alliance. For quite some time the political pendulum will swing from one coalition to another as alliances are constituted and reconstituted. At the moment the Congress is a spent force and its future in UP appears uncertain. There are important schisms in the hindutva and anti-hindutva political formations although temporarily the BJP has an edge over its rivals. However, if the state does not industrialise soon, the BJP might suffer the same fate as the Congress and new political equations might arise in future.

State Government Subsidies

The Case of Tamil Nadu

S Ambirajan

Competitive populism of political parties has led to a distortion of the subsidy system in India. This article examines the nature, causes and consequences of the growth of subsidies in Tamil Nadu. Any study of subsidies has to take into account the political economy of their structure and functioning. Besides statistics, there is qualitative evidence to show that the subsidy system in Tamil Nadu is wasteful, corrupt, regressive and counter-productive. The two major political parties are locked in an unhealthy Nash equilibrium of inefficient populism.

Valavan aayinum alavu arindu azhitthu, unn.
(Though you are as wealthy as the Cholas, spend to the extent of your income.)
– Avvaiyar in *Konraiventhan*

I
Introduction

THE subject of subsidies has become highly controversial in recent years. During the present era of liberalisation, globalisation, privatisation and economic reforms where the main policy thrust seems to be to downsize the role of government in the functioning of the economy, one need not be surprised at the attention given to the subsidy issue. While superficially 'subsidy' appears simple enough, any analysis of its philosophy, politics, economics and measurement bristles with difficulties. In the literature of public finance, the study of subsidies occupies a significant place because it is part of the key area of public expenditure analysis.

It is agreed that a prime function of government is to collect taxes in order to spend on public or collective goods that are made available to all, and indeed no one could be excluded from receiving the benefits from them. There are other areas where government needs to use the tools of taxation and expenditure. Both equity and efficiency considerations require state intervention. While the former aims at redistributing wealth and income to bring about an equitable economic society, the latter relates to the need for preventing distortions that emerge as a result of externalities. Externalities arise as a consequence of the divergence between social and private costs or benefits. Government takes action by imposing appropriate taxes or subsidies to equalise private and social valuations. In an ideal society where all costs and benefits can be internalised by the economic agents and where an ideal distribution of income is present, neither taxes nor subsidies need be present. But it is not so in real life situations. By interfering in the market, taxes and subsidies tend to distort the way resources are allocated. Subsidies, depending upon whether they are for positive or negative reasons, induce people to produce (and consume) more or less of those goods and services. Thus a positive subsidy induces people to consume services that are valued at less than their cost – and hence it is inefficient. If however, there were positive externalities associated with these subsidised goods and services, the subsidy has the effect of enhancing efficiency.

The standard neo-classical static economic theory as given in our micro-economics textbooks is clear. Assume that the demand for a particular type of service is D_h (Figure 1). Assume that it is supplied at a price of P_h. This measures the marginal social cost of producing those services and we are assuming that the marginal social cost is constant. Equilibrium supply is Q_1. The government decides to provide a subsidy of s per cent to the producers which makes the new price $(1-s)P_h$ and the supply curve becomes S'_h. Naturally, the quantity consumed goes up as a result of reduced price to Q_2. It has thus increased the consumption of the services. But what about efficiency?

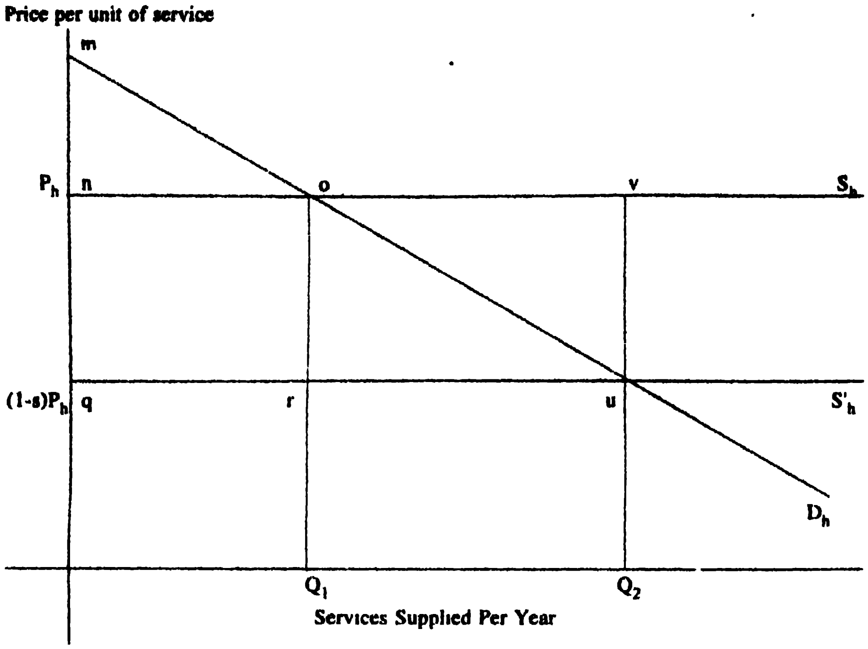
Originally the consumers' surplus was mno. With subsidy it is mqu. Consumers of the services get nouq more surplus. The cost at which this benefit is secured is clear. The cost of the subsidy regime is the quantity of the services utilised, qu multiplied by the subsidy price per unit nq or rectangle nvuq. Thus the cost of the subsidy exceeds the benefit – an excess burden ovu caused by the difference between nvuq and nouq.

We are assuming that the funds for subsidy are raised through lump sum taxes. If that is not the case, there will be even more of an excess burden We also assume that all the benefits accrue to the recipients with nil administrative costs.

Economic inefficiency arises because the subsidy regime masks the value people assign to particular level of consumption. To the right of Q_1, although people derive utility from consuming more, its value is less than P_h the marginal cost to society providing it. In short, inefficiency is increased because the subsidy encourages people to utilise more of the subsidised services that are now valued at less than their cost. Two interesting considerations follow: (a) the marginal rate of substitution (MRS) after subsidy depends on $(1-s)P_h$ while the marginal rate of transformation (MRT) in production depends on P_h. Thus when MRS is not equal to MRT allocation of resources cannot be efficient. But of course if there is a positive externality associated, a subsidy will enhance efficiency. And (b) the same increase in welfare could be generated by a direct grant to the needy because less money could raise them to the same utility level as the rest. In other words why subsidise people consuming Q_1 who were earlier happy to pay the price of P_h?

Subsidies are of three kinds: (a) those that help in increasing production or consumption of goods and services, e g, education, food; (b) those that help to increase the use of particular factors of production, e g, fertiliser; and (c) those that are special purpose subsidies to achieve some broad social objective, e g, export subsidies. There are also negative-tax type of subsidies provided basically to desist from undertaking certain kinds of productive activity as for example the subsidies given to the American farm sector to curtail production with the intention of maintaining prices at a higher level. Subsidies could be explicit with an actual flow of funds from the government to the private sector; or they could be hidden where the flow can only be imputed as in the case

FIGURE 1: NEO-CLASSICAL STATIC ANALYSIS OF SUBSIDY



of special tax concessions or loan guarantees. In many instances, a subsidy may not flow from the public to the private sector, but from one section of private sector to another. This form of cross subsidisation occurs when some consumers are charged higher prices to enable other consumers to pay lower prices. There are many situations when unintended subsidies exist because of the sheer mismanagement of public resources that results in a flow of resources from the public to the private sector. Subsidies are not given for a consideration although it is conditioned on some particular economic performance such as to grow more oilseeds or consume more educational services. Hence it is necessary to distinguish them from welfare payments like old-age pension or medical care for the destitute.

The classification of goods from the perspective of subsidies is not without problems, and it is doubtful whether one can entirely avoid subjective value judgments in evaluating which goods produce externalities and which do not. For example, in a discussion paper issued by the ministry of finance, government of India, 'Government Subsidies in India' (May 1997), goods and services are classified as public, merit and non-merit which is straightforward. However, the externality condition the paper assigns to particular items included in each of these categories can be questioned. When a statement such as "Education beyond the elementary level falls outside the ambit of merit category" it cannot be anything other than the subjective evaluation of the author of the paper.

II
Statistics

A significant feature of Indian public finance since India became independent is its pro-active nature. From the beginning, there existed a consensus that the government will actively use its fiscal tools to improve the efficiency and equity of the Indian economic system. With the steady expansion of the economic activities of the government, the part played by subsidies also widened. During the period since 1971 explicit subsidies provided for by the central government have gone up by no less than 120 times. The total sum of explicit subsidies has gone up from Rs 140 crore in 1971-72 to Rs 19,644 crore in 1997-98 (RE). Although there is some consolation that as a proportion of GDP, it has fallen (from 2.3 per cent in 1990-91 to around 1.4 per cent in 1997-98), in absolute numbers the growth has been quite substantial. Bulk of this has been in the areas of food, fertiliser, railways and interest payments. While the average growth rate of this increase is approximately 20 per cent in current rupees, in real terms (at 1980-81 prices) it is around 10 per cent per annum. Even during the 1990s when the government of India undertook to reform the Indian economy, the amount spent on subsidies not only did not abate, but actually registered a substantial increase. The state governments too have been liberal in their subsidy regime during this period though the experiences of the states differ. The state governments on the whole spend a much larger proportion of their receipts on subsidies because according to the Constitution of India, developmental and social welfare activities are vested with the state governments. A great many of the goods and services produced for stimulating the development of the state economy will not be forthcoming via the unrestricted market mechanism because of the presence of externalities. While a certain proportion of these goods and services are purely 'public' in nature, a large part of them fall under the 'merit' and 'non-merit' category. In this article, an attempt will be made to examine the nature, causes, and consequences of the growth of subsidies in Tamil Nadu.

'Subsidies' are an economic category and though we can define it precisely for analytical purposes, computation of the actual subsidies is difficult under the most easy circumstances where the processes of public finances are transparent. State finances in India are not only complicated but also opaque. The statistical systems are primitive, and one cannot easily fathom the reasons for the way certain accounts are kept. Even when data is made available, it is difficult to make sense of them. The problems get compounded when an attempt is made to examine their evolution over time using time series, or to make a comparison spatially with other states in India or other countries. Historical reasons, political compulsions, administrative exigencies not to mention sheer statistical incompetence make a study of subsidies a baffling and tentative exercise. Despite all these caveats, Tamil Nadu is perhaps marginally better than other states because at least gross data is made available and the department of evaluation and applied research has been reworking the state finance statistics to provide an economic and functional classification.

A most significant aspect of Tamil Nadu public finance is the phenomenal increase

TABLE 1: SUBSIDIES IN FINAL NET OUTLAYS

(Rs crore)

1960-65	5.09
1965-70	28.36
1970-75	54.34
1975-80	54.41
1980-85	387.53
1985-86	146.21
1986-87	182.60
1987-88	501.34
1988-89	468.59
1989-90	734.73
1990-91	706.34
1991-92	2848.12
1992-93	1986.99
1993-94 (RE)	1158.51
1994-95 (BE)	1138.88

Notes: RE – revised estimates;
BE – budget estimates.

Figure 2: Nash Equilibrium and Populism

		J Jayalalitha: Sound Economic Policies	J Jayalalitha: Inefficient Populist Policies
M Karunanidhi	Sound Economic Policies	Retention of vote by both J Jayalalitha and M Karunanidhi	Overwhelming victory for J Jayalalitha Possibility of loss for M Karunanidhi
M Karunanidhi	Inefficient Populist Policies	Overwhelming victory for M Karunanidhi and Possibility of loss for J Jayalalitha	Retention of vote for both J Jayalalitha and M Karunanidhi (Nash equilibrium)

in the proportion of subsidies in the budget during the 1980s and 1990s. Even during the earlier period, subsidies tended to follow the election cycle, but after 1980s, it is a continuous and relentless rise. Table 1 represent what is defined as subsidies and not the actual extent of subsidies in terms of what an economist will understand by that term.

The subsidies cover numerous areas in economic, social and general services. They cover a wide range of beneficiaries – agriculturists, capitalists, consumers, policemen, school-going children, depressed castes, rural poor and so on. As we can see the subsidies have been increasing rather steeply, and there is hardly any doubt that once the final accounts appear for the years 1993-94 onwards, we would witness much higher figures.

Over the period subsidies as a proportion of total current expenditure have also has been increasing. From around 7.61 per cent in 1983-84, the share went up to 38.09 per cent in 1991-92 and settled down to 27.95 per cent in the next year. Though it seemed to show a decrease in the next two years, the correct magnitude will be known only when the final accounts for those years are available. The trend is unmistakable. Subsidy as a proportion of total current expenditure was 12.96 per cent during 1980-90 period and it has gone up to 22.96 per cent during the 1990-95 quinquennium.

Even more than the increase in direct subsidies, indirect subsidies also show substantial and unhealthy increases during the last two decades. The extent of the indirect and hidden subsidies in the various governmental activities can be seen in the low level of non-tax revenues (Table 2).

In general, the Tamil Nadu government enterprises function in such a manner that they absorb more than they deliver. To give the instance of receipts in respect of dividends from enterprises, they averaged a mere Rs 1.37 crore per annum during 1980-85. Even subsequently, despite substantial investments, the growth has been meagre as can be seen from Table 3.

The situation is still worse if we take the departmental enterprises producing tradeable goods and services under the heads of irrigation, road transport, forest, chincona plantations, milk supply schemes, printing press and agricultural engineering (Table 4).

There is thus ample evidence that the component of subsidies has been increasing enormously, and on the whole the items under the head of 'economic services' such as agriculture, forestry, fishing, mining, manufacturing, construction, electricity, water supply, transport and communications, receive the bulk of subsidies. The bulk of what remains go to 'social and community services' that includes education, health, etc, (Table 5).

As we pointed out earlier, these figures represent subsidies as defined by the department of evaluation and applied research which contains: (a) grants on current account made to private industries either as direct payments for the producers or as differentials between the selling and buying prices of public sector trading organisations; (b) grants made to public sector corporations to compensate for losses as a consequence of government policy to maintain a stable price level; (c) rebates on the sale of handloom cloth, loss on the sale of fertilisers, improved seeds, pesticides and agricultural implements; (d) grants to co-operative societies to make good their losses for them to continue in operation; and (e) loss in irrigation services.

What these figures do not include is considerable. In their definition, it is stated clearly that current grants to private non-profit organisations, service households and local bodies are treated as 'transfers' and excluded from subsidies. Though technically transfers, lump sum gifts made to marriageable girls of certain castes under Moovalur Ramamritam Ammaiyar Scheme are really subsidies to acquire husbands. Surely when non-profit organisations and local bodies supply goods and services below their actual cost, they are subsidies. Similarly, all the expenses incurred in the MGR nutritious noon meals scheme except the subsidy element embedded in the TNCSC are not captured in the above subsidy figure. There is a very strong subsidy element in the provisioning for education, water supply, health and hygiene services because of the costs incurred and recoveries made. The losses on account of both departmental commercial undertakings and the non-departmental public corporations do not fully come into the subsidy calculations

Table 2: Non-tax Revenues of Tamil Nadu

(*Rs crore*)

1980-85 (annual average)	179.85
1984-85	216 73
1985-86	239.30
1986-87	252.95
1987-88	296.09
1988-89	334.55
1989-90	392.93
1990-91	381.44*
1991-92	1118 46
1992-93	612.79
1993-94	703 87
1994-95	772.66
1995-96	858.45
1996-97	885.45

Note: * Sudden increase in interest payments.

Table 3 Dividends from Enterprises

(*Rs crore*)

1985-86	2.18
1986-87	2.26
1987-88	2.39
1988-89	2.74
1989-90	1.26
1990-91	3.53
1991-92	13.16
1992-93	17.69
1993-94	14.41
1994-95	7.86
1995-96	28.38
1996-97	22.20
1997-98 (RE)	19.95
1998-99 (BE)	18.22

Notes: RE – revised estimates,
BE – budget estimates

Table 4. Receipts, Expenditures and Subsidy in Departmental Enterprise

(*Rs crore*)

Year	Receipts	Expenditure	Subsidy
1983-84	27.61	62 15	34 54
1984-85	35.12	72 96	37 84
1985-86	37.02	82 47	45.45
1986-87	40 78	99 02	58.24
1987-88	45 73	107 24	61.51
1988-89	47 27	115.28	68 01
1989-90	61 63	128.70	67.07
1990 91	58.04	150 03	88.31
1991 92	60 98	165 44	104 46
1992-93	63 53	180 27	116 74
1993-94	65 39	191 33	125.94(RE)
1994-95	69.49	197 41	127.92(BE)

Notes: RE - revised estimates;
BE budget estimates

because of the complicated nature of accounting adopted by all agencies. One main reason for such underestimation is the interest differential. The government lends capital, especially to the Tamil Nadu electricity board, public sector enterprises, statutory bodies, local bodies, co-operative societies, cultivators and government servants, at far lower rates than what is prevailing in the open market.

If we manage to take all these implicit subsidies into account, the subsidy figure will be far higher. Precise calculation of this figure is almost impossible with the sort of data availability and deficiencies that the analyst faces in such an exercise. It is possible to get another picture if we look at the difference between the total current costs and the gross recoveries effected as stated in the annual budget accounts. An attempt is made to look at the recovery rates (Table 6) in areas that could be classified as either merit goods or other services that public policy determines to be producing external economies and thus needing some support from the public funds.[1]

The recovery rates substantially overstate the real subsidy outgo because a few items in the list provide a high rate of recovery such as 'forestry and wildlife', 'non-ferrous metals', 'crop husbandry', and even 'interest payments' in certain years. If we decompose the above gross figures into 'merit goods' 'non-merit goods' as the discussion paper of the ministry of finance, 'Government Subsidies in India' (May 1997) does, and also omitting what is called 'surplus sectors: economic services', the recovery rate will dip substantially. However, even the seemingly steady recovery rate does conceal the steep increase in subsidies which can be observed if we take a few of the most important subsidy schemes (Table 7).

While there are many sectors that account for this substantial increase in the subsidy element, the two areas that are of key importance are food and power. The way they have moved over time indicate many of the basic problems that beset the state finances.

Food: This is probably the most vulnerable area of Tamil Nadu government's subsidy policy. Throughout the 1980s and 1990s, subsidy under this head has been rising and often very sharply.[2] The TN Civil Supplies Corporation (formed in 1972 and converted into a public limited company three years later) is vested with the following functions: (1) acting as a wholesale agent of the government to procure and distribute all commodities – rice, wheat, sugar and edible oil – with the *exception of kerosene; (2) running retail outlets; (3) taking delivery of central pool* allocations of rationed items from time to time; (4) supplying commodities to the various welfare schemes such as nutritious noon meal scheme in schools, Sri Lankan refugees, foodgrains for SC, ST, BC, MBC hostels; and (5) Making open market purchases.

The public distribution system (PDS) is a mammoth operation because it has under its control 24,905 fair price shops. The rules are framed precisely to help consumers such as for example there should be one shop for at least 800 family cards. This could be reduced to 500 cards under certain circumstances. Further there is a rule saying that "no cardholder is required to travel more than 2 kilometres". Again there are part time shops and mobile vans to cater to particular customers. For all this, it received Rs 1.81 crore subsidy in 1980-81 and this has grown to Rs 1,000 crore in 1997-98 as Table 8 shows.

The reason for this phenomenal rise is simple. The cost of procuring rice is much higher than the price at which it is sold. This differential has been growing steadily as Table 9 demonstrates. From hardly Rs 0.40 per kilo in 1979-80, it has reached Rs 6.35 last year. The quantum of subsidy depends not only upon this price differential but also upon the type of rice supplied, the method of obtaining it and the total distribution under the public distribution system. 'Common' variety is cheaper than 'A' and naturally poorer people prefer the common variety. There is supply from the central pool account to which must be added costs involved in transport, storage, rate of interest, which is the cost price for TNCSC. There is also parallel procurement locally (to meet the shortfall from the central pool allocation) where there are costs of purchase, milling, storage and so on. The government of India fixes the support price which is accepted by the state government though in order to provide an incentive for the Tamil Nadu farmers to produce further subsidies is given which are variously called 'incentives' (1991-93, 1996, 1997), 'transport charges' (1995) and 'incidental charges' (1997, 1998) ranging from Rs 10 per quintal in 1996 to Rs 50 in 1997. The offtake has grown from 1.35 tonnes in 1979-80 to 22.19 tonnes in 1996-97. It must be remembered that PDS coverage is 83 per cent of the population in Tamil Nadu as against the national average of 36 per cent.

TABLE 6: RECOVERY RATES

(Rs lakhs)

Year	Expenditure	Receipts	Per Cent of Recovery
1977-78			18.41
1987-88	275940.79	24657.43	8.9
1988-89	304719.78	28421.44	9.33
1989-90	381090.83	32000.7	8.4
1990-91	451876.45	30324.09	6.7
1991-92	730126.12	102905.1	14.09
1992-93	685864.37	51810.6	7.55
1993-94	702820.17	61600.37	8.76
1994-95	775018.74	65775.7	8.49
1995-96	858312.44	71821.39	8.37
1996-97	993134.05	74701.43	7.52
1997-98	1098153.68	80948.01	7.37

TABLE 7: SUBSIDY DETAILS OF SOME HEADS

(Rs lakhs)

	Annual Average 1980-91	Annual Average 1991-95
Tariff compensation for supply of power at concessional rates	7975	93010
Reimbursement to TN Civil Supplies Corporation for PDS	6542	51459
Assistance to central co-operative banks towards waiver or refund of interest	2503	4636
MGR Nutritious Noonmeal Scheme	2303	
Rebate on sale of handloom cloth	1918	5734
Production incentive to Cauvery delta farmers for supply of paddy	1555	3082

TABLE 5: BREAK-UP OF SUBSIDIES

(Rs crore)

Year	General Services	Social and Community Services	Economic Services	Others	Total
1983-84	1.97	10.15	91 06		103.18
1984-85	2.43	17	187.15		206.58
1985-86	3.24	45.77	97.2		146.21
1986-87	2.75	24.4	155.45		182 6
1987-88	2.61	52.45	446.28		501.34
1988-89	2.74	85.07	30.78		468.59
1989-90	2 77	305.14	426.5	0.31	734.72
1990-91	2.4	346.3	357.5		706.35
1991-92	2.09	408.13	2430.94	6.96	2848.12
1992-93	2.24	744.63	1231.44	8.68	1986.99
1993-94RE	2.48	579.04	575.37	1.61	1158.5

Public Sector Undertakings: Another aspect of the Tamil Nadu economy where there is a substantial presence of subsidy is the way the 67 public sector undertakings (PSUs) are being managed. There is the Tamil Nadu Newsprint and Papers Limited, which is a deemed government company, and 18 co-operative spinning mills. We have earlier referred to the meagre income in respect of 'dividends from enterprises', but even that conceals the real burden on the exchequer. These undertakings are involved in passenger and other transport, mining, manufacturing, trading, developmental finance, agriculture, construction, and other miscellaneous and/or developmental activities. As on March 31, 1998, these 67 PSUs have around 1.61 lakh employees and a share capital of Rs 1,059.74 crore, and have borrowed Rs 4,204.50 crore with investment totalling Rs 5,272.90 crore.[3] It becomes clear when we examine their functioning that they are a drain on Tamil Nadu finances for share capital, loans and subsidies (Table 10).

When the annual budgetary provisions for the state PSUs are seen, we see nothing but a constant flow of funds from the exchequer to these entities for a variety of reasons such as 'loans', 'share capital' 'share capital assistance to maintain adequacy ratio', 'reimbursement of bus fares', 'to repay advances', 'conversion of outstanding loan, 'sales tax subsidy' or other subsidy. To give the example of TANSI, during the 1991-95 period, it has received either as sales tax subsidy, or for write off of loans a total sum of Rs 1,872.97 lakh. This is in addition to the write-off of 50 per cent accumulated interest charges amounting to Rs 730 lakh. The loan liability to the state stands at Rs 3,416.88 lakh. The story is not very different in the case of the 18 co-operative mills in which the TN government holds 93 per cent of the share capital. The accumulated losses as on March 31, 1997 were around Rs 221 crore.

Power: There can hardly be any doubt that power is a basic essential for efficient functioning of the economy. Though it is essentially a 'private' good, there are significant externalities associated with it, and governments deem it necessary to give support to its production in one way or another with considerable financial involvement through subsidising. In Tamil Nadu, government's presence in the energy – electricity – sector is enormous. The TNEB as the main, if not the only, provider of electricity in the state is the largest public enterprise in Tamil Nadu, and this has always been operating in the red requiring heavy subsidies. According to the Electricity (Supply) Act as amended in 1985, the TNEB should earn at least 3 per cent on its net fixed assets after making provision for depreciation and interest payments. This ratio averaged around 1 per cent in 1960s and dropped to –2.8 per cent in the next decade. Subsequently in the first half of the 1980s, it was –21.7 per cent.[4] In the 1990s, though TNEB has been able to meet its current costs out of current revenues, its continued operation requires substantial infusion of government subsidies to meet interest charges, depreciation provision and expansion of capacity.

As can be seen from Table 11, the finances of TNEB are not rosy, and the subsidy received is quite substantial. If a different kind of computation is tried, the figures could look worse. For example, not only are interest rates generally low for TNEB like other government undertakings, in terms of the statutes, loans (apart from ways and means advances) received from the government need not be repaid apart from interest charges. If depreciation were calculated on replacement basis instead of the book value method adopted at present, the deficits could be larger.

There are other areas where subsidisation is considerable and diffuse. Private sector industry receives subsidy in numerous ways such as backward area concession, investment subsidies related to fixed investments, sales tax exemption for specified number of years, and so on. Concessional tariffs on electricity are provided to industries set up in backward districts. More recently red carpet treatment is accorded to FDI no doubt involving considerable indirect subsidies. While subsidies benefit particular industrial units, computation of their total impact on the exchequer is beset with both measurement and data adequacy problems. The same is the case with irrigation subsidies. As can be seen in Appendix A the recovery rate under the heads, 'major and medium', 'minor', and 'command area development' is extremely modest.

As has often been pointed out, notwithstanding the strictures of Irrigation Commission (1972) and National Commission on Agriculture (1976) against subsidising irrigation, in Tamil Nadu, direct and indirect subsidies to irrigation are very steep.[5] The agricultural sector as such receives not only price subsidy and irrigation subsidy as we have already seen. It receives an enormous subsidy for power

Table 8: Subsidy to TN Civil Supplies Corporation

(Rs crore)

1980-81	1.81
1981-82	23.99
1982-83	51.68
1983-84	79.00
1984-85	83.90
1985-86	79.00
1986-87	65.00
1987-88	117.61
1988-89	184.53
1989-90	208.79
1990-91	219.31
1991-92	332.24
1992-93	351.68
1993-94	400.00
1994-95	450.00
1995-96	800.00
1996-97	1000.00
1997-98	1000.00

Table 9: Price and Offtake PDS Rice

(Rupees)

Year	Open Market Price*	PDS Price	Difference	Total Offtake# (Lakhs of Tonnes)
1979-80	2.00	1.60	0.40	1.35
1980-81	2.90	1.75	1.15	6.71
1981-82	2.71	1.75	0.96	6.29 (.70)
1982-83	3.71	1.75	1.96	6.75 (3.55)
1983-84	3.12	1.75	1.37	6.98 (3.00)
1984-85	3.38	1.75	1.63	11.04 (5.25)
1985-86	3.52	1.75	1.77	9.24 (7.05)
1986-87	3.75	1.75	2.00	11.87 (6.30)
1987-88	4.17	1.75	2.42	13.03 (7.30)
1988-89	4.54	2.00	2.54	14.57 (6.00)
1989-90	4.37	2.00	2.37	12.33 (7.37)
1990-91	4.90	2.00	2.90	17.31 (9.20)
1991-92	5.67	2.00	3.67	14.70 (8.29)
1992-93	6.81	2.50	4.31	14.30 (8.50)
1993-94	6.84	3.50	3.34	12.80 (11.42)
1994-95	8.34	2.00	6.35	15.04 (14.55)
1995-96	9.15	2.00	7.17	24.13 (18.14)
1996-97	8.35	2.00	6.35	22.19 (14.30)

Notes: * Price for boiled rice, common variety.
Allotment from central pool.

consumed. The effective subsidy for agricultural consumers in Tamil Nadu defined as the difference between average unit cost of power and average unit of revenue realised is substantial as Table 12 indicates. In general, the Tamil Nadu agricultural sector has been well pampered by subsidies and this is not confined to the 1990s. Ashok Gulati has computed that input subsidies (power, irrigation, fertiliser and credit) as a percentage of state domestic product in agriculture over 1980-81 to 1986-87 was highest in India at 31.7 per cent whereas the all-India average was only 17 per cent.[6]

Besides these, there are a number of other fields such as education, health, public utilities, welfare of weaker sections, transport, and so on where government is deeply involved financially with very low recovery rate resulting in substantial subsidisation.

The long and short of it is that the 'subsidy' element in Tamil Nadu public finances has been growing quite substantially. Whether it is direct or indirect or whether it is a proportion of the total public expenditure, the result seems to be the same. While the gross budgetary subsidy as a ratio of the net state domestic product has fallen from 15.25 per cent in 1990-91 to 13.89 per cent in 1996-97, during the same period, per capita subsidy has gone up from around Rs 750 to approximately Rs 1,550. There are no signs that this rising trend is on the wane.

III
Impact

The question of subsidies in India in general and Tamil Nadu in particular raises many issues. Economic theoretic justifications of subsidies as in the textbooks mention only efficiency and equity considerations. The Constitution of India also lays down that governments should provide certain services at low or no cost. But in order for these objectives to be realised through subsidies, the requirement is a totally apolitical and honest system of administration which seems to be an impossibility. Any study of subsidies as they actually exist has of necessity to take into account the political economy of their structure and functioning (Appendix B). Who wields power over public resources? How do they utilise the power, and for whom, are relevant questions. It is also necessary to raise the question of how effectively the subsidies are able to achieve the stated objectives.

There is ample qualitative evidence to show that the subsidy system in Tamil Nadu is wasteful, corrupt, regressive, and counterproductive. Some of the big elements of the subsidy system are epitomes of inefficiency. Take for example the gargantuan food subsidy. From the time the items are procured to the time they are delivered to the consumer, one can witness the enormous mismanagement that results in the wanton destruction of scarce resources. *The Hindu* reported on October 28, 1998 that "A huge stock of about 15,000 tonnes of rice is virtually rotting in nine depots of the Food Corporation of India (FCI) in Tamil Nadu region for the last few months". As they could not dispose of the stock, it will be sold "as cattle-feed after two years as, by that time, it would become unfit for human consumption". Obviously better co-ordination between the centre and state could prevent this kind of wastage, but in our public sector ethos, this is an impossibility.

Another area where policy leads to wastage is in the power sector. When agriculturists are given free power, they tend to overuse it by retaining antiquated power-guzzling equipment. Corruption in public sector is widely known and every senior officer one talks to provide numerous instances of how leakages occur in the system.[7] Numerous regulations exist to prevent corruption. Just to maintain the Essential Commodities Act of 1955, the state has issued many control orders some of which are Tamil Nadu Kerosene (Regulation of Trade) Order 1973; Pulses, Edible Oilseeds and Edible Oil (Storage Control) Order 1977; TN Essential Commodities (Display of Stocks, Prices and Maintenance of Accounts) Order 1977; TN Scheduled Articles (Prescription of Standards) Order 1977; Tamil Nadu Sugar (Regulation and Trade) Order 1981; Tamil Nadu Paddy (Restriction of Movement) Order 1982; Tamil Nadu Scheduled Commodities (Regulation of Distribution by Card System) Order 1982. And these are sought to be implemented by the staff of civil supplies and consumer protection department and civil supplies wing of CID of the police department. But as the Latin poet Juvenal questioned: Quit custodiet ipsos custodes? (Who is to guard the guards themselves?)

The regressivity of the system becomes clear in analysing numerous elements of the subsidy system. Our system commits what Giovanni Andrea Cornia and Frances Stewart term as F-mistake (failing to reach the targeted population) and E-mistake (intervention reaches predominantly the non-targeted population).[8] Looking at the all-India as well as inter-regional picture in particular states, the distribution of subsidies seems to be substantially regressive.[9] By and large, irrigation and power subsidies are accounted for by the large farmers and they are able to increase the productivity of their farming operations. They use free power to energise pumpsets and sell groundwater to the poorer farmers who are not in a position to take advantage of these subsidies. In a number of areas such as higher education, medical facilities, and so on, wide ranging subsidies benefit everyone without discriminating in terms of their wealth or income status.

There is also the added problem of identification of the actual beneficiary in a subsidy regime. The target may be the needy and one could even observe the intended target actually receiving the benefit. But that does not necessarily mean that he was actually the beneficiary because very often the immediate recipient of the subsidy may not be the ultimate gainer. As T C A Anant has shown, the subsidies given to urban transportation benefit more the real estate owners via

Table 10: Finances of TN PSUs

(*Rs crore*)

Indicators	1992-93	1993-94	1994-95	1995-96	1996-97
Number of PSUs	62	64	67	67	67
1 Total investment excluding reserves	2529.56	3026.93	3956.13	4666.80	4810.52
2 Long-term loans	1897.34	2395 67	3313.67	3994.17	4336.67
3 Capital employed	2291.95	2711.22	3439.14	4224.17	4156.30
4 Net worth	260.89	152.80	338.81	196.79	–58.20
5 Operating income	4147.17	4303 74	5621.92	6552.34	7547.75
6 Total (gross) income	4389 50	4942.65	5912.90	6928.79	7858.01
7 Tot ' expenses	4256.55	4455.89	5550.88	6614.17	7772.73
8 Gross (6-7) margin	132.95	486 76	362.02	314 62	85.28
9 Depreciation		252.09	162.12	207.64	187.70
10 Gross profit (8-9)	189 64	234.67	199.90	106.98	–102.42
11 Interest	164.46	171.85	171.47	209.46	151.23
12 Tax	4.24	8.58	6.11	10.34	17.07
13 Net profit after tax and interest	20.94	54.24	22.32	–112.82	–270.72
14 Accumulated profit/loss	–374.61	–406.67	–483.49	–728.59	–1042.38
15 Return on investment per cent	0.52	1.32	0.47	–2.04	–4.91

higher property prices and employers through lower cost of obtaining labour than the commuters as such.[10] In this process often the relatively more affluent corner all the advantages of subsidy.

The same is the case with PDS (benefits urban areas more than rural areas) and MGR nutritious noon meals schemes. Srinivasa Narayanaswamy, president of the Federation of Consumer Organisations of Tamil Nadu estimated that out of 175 lakh tonnes of foodgrains distributed through the PDS in Tamil Nadu only 75 lakh tonnes reached the rural poor the rest went to high and middle classes in urban centres. A K Venkat Subramaniam who had occupied the post of commissioner of civil supplies in Tamil Nadu not long ago was even more blunt: "PDS is not serving the poor...PDS is tailored to meet the needs of the organised salaried sector".[11] In a study of the rice subsidy scheme in our neighbour state, Andhra Pradesh, it has been found by R Radhakrishna et al that for every rupee transferred to a poor person, 3.6 rupees reached the non-poor and 1.8 rupees were spent on administration.[12] The power sector is a case of cross-subsidisation where the manufacturing sector bears a disproportionate burden of the electricity charges whereas agricultural sector gets power free and the household sector at a less-than cost rate. Obviously this type of disincentive is bound to have a depressing impact on the industrial sector.

A legitimate criticism of the system is that it subsidises incompetence and mismanagement. Take for example the case of TANSI about which we have already mentioned. It receives considerable amount of help from the government. It would have been an even bigger drain had not the government been its sole customer. If no purchase preference or price preference is given this incompetent organisation would not have been able to compete on a commercial basis to supply items like utensils for Sri Lankan refugees and for the midday meals scheme or ballot boxes.

Not that some benefits do not accrue to the intended beneficiaries, but it tends to be minuscule compared to the resources expended. The general poverty and ignorance of the population tolerate the system knowing full well the prevailing corruption because some benefit is better than no benefits. When the poor woman gets 50 per cent of the promised Rs 5,000 for the Moovalur Ramamritam Ammaiyar wedding gift for marriageable age scheme after the party functionaries and street-level bureaucrats had their cut, she is happy to be richer by Rs 2,500. Similarly when the poor consumer gets only 75 per cent of the PDS rice, he feels happy that even at that price it is cheaper than the market price. Who cares if the PDS outlet persons pocket the difference?

A large part of the subsidy system is really counterproductive because by wasteful use of funds, it denies resources for legitimate and needed developmental purposes. The two crucial figures of the fiscal health of Tamil Nadu show how little the state has by way of funds for productive investment. Per capita deficit as per 1997-98 budget estimates is Rs 250.59 and per capita gross fiscal deficit is Rs 503.59. In short, what the Vadilal Dagli Committee stated in its *Report of the Committee on Controls and Subsidies* as early as May 1979 has come out to be absolutely true: "The possibility of their misuse or sub-optimal use and their continuance indefinitely – as a result of the pressure of vested interests – are their greatest disadvantage. As a result, subsidies could generate complacency and inefficiency, and lead to a general raising of the cost structure" (p 114). One need only to juxtapose what Arnold Harberger said in his presidential address to the American Economic Association. According to him ultimately after everything else in the growth process is accounted for, the underlying key is 'real cost reduction' in all sectors of economic activity: "It has long been my song that there are at least 1001 ways to reduce costs and that most of them are actually followed in one part or other of any modern complex economy". His conclusion is that every single policy prescription that has a bearing on real cost reduction should be pursued relentlessly.[13]

I have not considered some other consequences of the subsidy system for want of adequate data. For example, it would be interesting to analyse the impact of the subsidy system on the allocation of the individual's resources that could have major macro consequences. A study of the highly praised Sri Lankan subsidy system concludes that in "rural areas the average value of the reduction in earnings owing to the reduction in the level of work effort in response to receiving the rice ration corresponded to around one-third of the value of the subsidy".[14] Careful research may reveal similar results and suggest desirable policy directions.

Having said all this, there is the question why we persist in a subsidy system which has developed all these undesirable characteristics. Considering that Tamil Nadu administration is supposed to be competent and its political class intelligent, one would have thought that the more responsible members would have seriously considered basic issues relating to the role of the state in these areas, extent of subsidisation required, and alternative methods of delivering the goods and services. Even 'targeting' which has considerable support among the Tamil Nadu policy-makers has not been discussed sufficiently as a practical policy. Though Amartya Sen has fielded powerful arguments[15] against targeting, it may still be a useful policy framework for Tamil Nadu subsidy system. Similarly other techniques like food stamps and education vouchers could be tried at least on an experimental basis.[16]

Indeed the Tamil Nadu Planning Commission has reflected on these issues and has come out with specific policy prescriptions. In a volume entitled "Discussion Papers, Ninth Five-Year Plan, Tamil Nadu 1997-2002" prepared by the State Planning Commission, there are a number of suggestions that could be accepted by our political parties unanimously. It says for example clearly that "in each major

Table 12: Power Subsidy for Agricultural Sector

(Rs crore)

Year	Effective Subsidy for Agricultural Sector
1990-91	456.21
1991-92	459.61
1992-93	642 52
1993-94 (RE)	768.06
1994-95 (BE)	914.60

Notes: RE -- revised estimates;
BE – budget estimates.

Table 11: Finances of TNEB

(Rs crore)

Year	Gross Revenue	Current Expenditure	Operating Surplus	Interest	Depreciation	Surplus
1989-90	1068.79	1302.8	–234.01	207 03	80	-521.04
1990-91	1447.86	1537 33	–89 47	226.96	94.05	–410.48
1991-92	1677.01	1496.91	180 1	168 45	108 79	–97.14
1992-93	2118.24	1961.18	157 06	270.49	118 53	–231.96
1993-94	2634.35	2500.1	134 25	300.3	135.51	–301.56
1994-95	3508.29	2996.28	512.01	340.5	173.82	–2.31
1995-96	4128.27	3604.5	523.77	379.81	220 69	–76.74
1996-97	4490.49	4009.62	480 87	422 27	315 11	–256.51

sector of investment" attempts should be made "to improve efficiency of resource use, conservation of resources". There is a section called 'Policy Imperatives' in this document which is a marvel of compression and says everything that needs to be said about the policy direction that the state should take to cut down real costs in our productive process and improve efficiency of the economic agents.

With unerring precision, the document points to the need for improving governance:[17] "simplify the administrative rules, regulations and procedures which will reduce delay, administration and transactions cost of doing business. At present, these costs arise in getting various licences, getting land, water supply, road and other facilities". Such an enabling environment, according to the document, is better than the "present policy of giving various fiscal and other concessions which drain the revenue of the government". It also suggests that the government policy should clearly define the role of the state in "economic matters and commercial activities". Neither state ownership nor regulation of any economic activity should be undertaken without proper justification on the basis of "market failures due to externalities, economies of scale, public goods and sunk investments...and comparative cost of public and private agencies".

Their position on infrastructural investment is faultless. Given the inadequacy of public funds, it is essential to encourage private funds to enter infrastructure sector. As investments in this sector involve large sums and lengthy gestation periods, the government should clearly "spell out long-term pricing policies" and the "pricing policies should be de-politicised so that the decisions on the extent and the timing of the price revisions can be left to independent expert regulatory bodies". The planners are not unmindful of the 'equity and social goals' and hence do not oppose subsidy *per se*. They argue that subsidy should not lead to undue inefficiency: "As far as possible, even for the subsidised sectors, the prices must have lower bounds, i e, operating cost per unit of output, or unit variable cost. There must also be an upper limit to the price of the cross-subsidising category". They also suggest that ultimately subsidies should be rationalised and eventually phased out because they lead to too many undesirable consequences such as wastage of scarce resources, excess consumption and undependable supply.

One of the earliest enquiries done about subsidies in India suggested as early as May 1979 numerous measures to guard against subsidies deteriorating into wasteful measures. It suggested among other things that a subsidy should not be valid for more than three years and if it is to be extended a review of the costs and benefits of the subsidy should be placed before the legislature. The target groups should be identified and benefits assured to them. The report made it clear that the subsidies should be overt so that costs and benefits thereof could be easily identified.[18]

There are other considerations as well because the overall impact of government subsidy policy could be different in different sectors. While one sector may suffer from inefficiency and poor delivery to get the full benefit, other sectors may suffer from a net loss in the total bargain. Looking at the all-India picture, Ashok Gulati and Anil Sharma point out that Indian agriculture is not 'net subsidised' but 'net taxed'. Their argument is that high protection to industry and an overvalued rupee has discriminated against agriculture. As "subsidies on key inputs have lost their rationale", they are "now crowding-out productive investments, damaging environment, accentuating inequity and promoting inefficient cropping pattern". What they suggest for India as a whole is applicable to Tamil Nadu as well and essentially the remedy lies in a comprehensive package of reforms involving improving the institutional structures and market organisation.[19]

IV
Explanation

The reasons why a perfectly good concept like subsidy has been turned into an unproductive incubus in its application are varied. Subsidy is a system of interconnected institutions and when the inner mechanisms decay due to the subversion of norms and rules, the system is bound to fail to deliver the original objectives. The two key institutions in this context are the political and bureaucratic structures. Both of them are behaving in a perverse manner albeit in a rational way. One can cite 'path dependency', 'asymmetric information', 'principal-agency issue', and 'multiple objectives' causing this result. The institution of subsidy functions by interaction between numerous economic agents situated both vertically and horizontally.

In the vertically organised bureaucracy controlled by the chief minister and other ministers, the objectives of the top layer may be very different from those positioned lower down the hierarchy and this has serious repercussions on their respective behaviour. The politician may genuinely want to improve the equity and efficiency of the system in order to get the approbation of the voters, but people lower down the administrative hierarchy are not likely to benefit by voter satisfaction and hence prefer immediate rewards through corrupt practices. This agency problem is confounded by unclear but conflicting multiple objectives, entertained by the leadership. Policies are arrived at as result of some or all of the following: (a) what should be done is determined on the basis of serious advice from experts; (b) The top policy-maker's perception of how the economy and society to function; (c) desire to win the affection of the people so that in dictatorships it will prevent rebellion and in democracies it will fetch them votes; and (d) unstated intention to siphon off public resources into one's own, or one's relatives, political friends, or belonging to one's own political party. Quite apart from the contradiction we can notice in the above, there are other possibilities of conflict when there could be dichotomous objectives like 'equity' and 'growth'.

'Path dependency' explains many of the unfavourable consequences of the entire subsidy system. Once something gets started, it is impossible to veer off the course. No one in the power structure dares to touch the benefits provided.[20] So schemes started to benefit particular groups can never be removed because of the pressures and vested interests that gather around that policy even though conditions have undergone changes. Take for example the shift from monopoly procurement to parallel procurement in the Cauvery delta region. Originally in order to assuage the feelings of the Cauvery delta farmers regarding the government monopoly procurement, an incentive was given. Even though the monopoly procurement policy was changed the incentive was not removed and it has continued with a new nomenclature called 'incidental charges'.

In the final analysis it is clear that a new kind of political system has emerged and that is not conducive to increasing administrative efficiency. What we have is not a democracy as defined by the philosophers of the enlightenment, and French Revolution, and liberals like John Stuart Mill. Similarly our bureaucracy is not as classically defined by Max Weber. Both of them have been debauched so thoroughly that they resemble formally without substance the originals. This is especially so when we see the Tamil Nadu political system where the politicians use

Appendix A

Number	Description	1987-88		1988-89		1989-90		1990-91		1991-92		1992-93		1993-94		1994-95		1995-96		1996-97		1997-98	
		Receipts	Expenditure	Receipts	Expenditure	Receipts	Expenditure	Receipts	Expenditure	Receipts	Expenditure	Receipts	Expenditure	Receipts	Expenditure	Receipts	Expenditure	Receipts	Expenditure	Receipts	Expenditure	Receipts	Expenditure
2202	General Education	1300 5	65180.88	1279 99	74260.53	1496.26	100367 54	1908 87	121888 75	1973 86	138831 12	1980.86	148501.29	2481 79	165109 28	2955.33	180801 89	2968.36	205946.34	3156.97	239565.51	4064.05	288045.12
2203	Technical Education		2635.93		2673.68		3966 98		4301 56		4254 91		5350 12		5854 53		6168.94		6380.4		7432.89		10937.82
2204	Sports and Youth Services		676.44		733.96		825.12		797 1		992 58		953 8		1382 64		2442.21		3545.04		2057.53		2537.93
2205	Arts and Culture		864 07		963.8		1196 07		1400 51		1336 87		1632 85		1745.65		2621.11		2187.38		2630.88		3304.77
2210	Medical, Public Health	1354.39	19573 38	1152.52	21713.64	2699 41	26129 46	2109 88	31592 91	1945 06	34636 57	1892.94	40228 44	2731 7	44750 96	2822.45	49938 76	3364.83	57582.16	3054 83	67046.63	3782.75	75766.15
2211	Family Welfare	28 39	5567 62	42.85	4345.56	44.49	5665.35	21.48	6307 68	8.53	7684 08	8 01	8713 81	11 84	10161.07	24.85	11062.07	15.88	12235.58	9.14	10339.33	26.35	11934.33
2215	Water supply Sanitation	175.78	10957.26	91 29	9203.42	162 57	15588 05	150.68	13933 2	1899 73	18338 78	53 17	18459.31	249.73	32767 82	401 65	28737.08	236.73	24405.23	463.81	32410.52	50.12	22478.86
2220	Information Publicity	192.57	372 11	158 24	412.73	178.02	564 44	145 5	687 97	135 26	806 62	272.66	1088 32	248 83	1104 6	314.09	1954.12	617.16	5297.3	272 34	1082.79	308.53	1534.62
2225	Welfare of SC, ST, OBC		7805 03		8360.2		11649 35		13169 25		16157 58		18508 94		19089.7		23668.15		31439.04		35435.86		40916.54
2230	Labour Employment	215.9	2672.6	233.54	2654.87	291 87	3482.04	356 97	4494 29	658 92	4445.44	606 46	5640 62	749 36	5586 03	762.7	6489 47	814.39	7026.97	1388 67	7007.8	1345.68	8263.04
2236	Nutrition		10032 45		9057 73		13968 62		23533 32		25556 47		27230 65		28251 15		36517.5		35685.6		37718.81		45377.64
2402	Soil, Water Conservation		1656 32		1560 12		1668.84		1257 48		1435 4		2181 94		2363.37		2487.67		3055.97		3149.83		3737.31
2406	Forestry Wild life	3444 43	2231 31	3375.93	1800.57	4925 03	2331 78	4435 18	2941 94	4457 62	3115.52	4452 62	3938.11	5526 7	4158 14	6480 61	4511 07	5796.59	5055.52	5273.32	5428.62	4345	7503.24
2415	Agricultural research		1055.36		1284.63	0.01	2032 84	0 01	3239 84		3923 92	0 01	3776 93	0 07	4576 28	2 12	4619.48	2 19	5388.78	2.06	8640.2	5.67	7966.95
2711	Flood Control Drainage		175 75		178 07		195 04		203.88		210 86		215 9		220.02		257 32		373 11		228 75		246.05
3051	Ports, Lighthouses	51 99	74 15	60 9	87.28	45 01	98 57	44.4	117 16	51.93	120.71	65 61	140 84	48 61	143 24	55 92	168 25	95.33	183.68	82.57	184.79	110 64(BE)	237 45(BE)
3054	Roads, Bridges	817 49	8347 69	830.26	9123 82	999 02	10439.16	1054 39	13792 64	1025 08	18541 01	1323 51	20158.34	1550 15	23549 75	1615.57	24931 77	1214 91	29775.7	1422.77	34320 09	1427.49	32652 85
3425	Other Scientific Research		268 06	1.07	331.31	5 45	170.75	2 61	156 99	4	255 59		312 29	0 08	286 51		393 28	0 02	537.08		401 33		321
3435	Ecology Environment						0 04								0 87		0.43		12		358 8		311 23
2216	Housing	405 82	2735.18	459.56	1765 76	594 04	1306 27	621.62	2721.57	699 77	1919.26	810.59	2379 33	908 3	2436.93	1031 98	3469 32	1012 71	3837.51	1074.97	3091.37	1092.53	2779.56
2217	Urban Development	5 22	1458 23	6.45	3418 45	4 88	4199 75	83 46	6945 55	70 67	14029 42	65 44	9126.59	60 34	8349 43	63.51	6024 74	67 65	7051 89	33.79	11065.58	56.04	14653.01
2235	Social Security Welfare	494	11806.85	5030 56	15627.27	610 48	14041 4	-3995 06	13944 52	930 52	14096 05	1149 87	17627 74	1153.83	19430 61	1205 13	20547 96	2173 26	23552 61	3313 22	26626.96	3441.95	46089.73
2250	Other Social Services	649 35	160 92	296 05	151.49	246 43	237 93	141 12	263 12	137 64	292.54	156 82	328.11	177 11	333 66	171 89	1245 86	163 1	-588.96	142 25	303.35	164 89	263 96
2251	Secretariat Soc Services		333.01		375 89		432 29		519 03		778 52		908 04		1030 15		1123 27		1242.05		1403.55		1893.12
2401	Crop Husbandry	3615 4	12365 89	3894 47	10403 72	4775 42	14787 17	4618 18	32654 36	5201	63365.98	6367 06	110087 72	7583 48	78108 19	6312 83	91215.39	6308 78	63058 46	5977 81	70464.53	6793 41	52321 61
2403	Animal Husbandry	157 33	3320 98	173 17	3752.11	208 65	4417 36	207.54	4959 32	271 54	5067 2	329 53	5981 79	413 84	6971 89	513 48	7471.32	604 68	8247.54	611	9038.21	613.56	10355.34
2404	Dairy Development	32 86	299.88	57 05	296 88	59.86	335 75	82.16	404 87	130 51	640 49	95 27	523 66	100 96	563.64	110 42	566 09	121 65	637.39	138 86	1062.53	113.94	868.99
2405	Fisheries	119 03	611 73	78.81	644 85	75.01	693 3	184.56	729 01	186.44	888 58	105.57	1576.64	117 81	1721 83	240.08	2722 52	150 01	2295.02	149.77	3584.03	140.72	2592.19
2407	Plantations	149.28	472.35	123.58	303 91	117 24	292 15	0.63	9.58	0 01	1.61	45 93	1.75		1 25		0.99		2.63	157 69	0.81		1.14
2408	Food Storage, Warehouse						5					0 65			-3 38								
2425	Cooperation	537 56	4284 73	573.91	5165 67	1492.67	8840 73	1003 16	6152.69	858 46	7911 36	1236.47	14524 27	1285 29	7310.48	1402.4	5038 19	1431 9	6755.31	1275.62	6270.95	1323 39	7390.39
2435	Other Agricultural Prog	179 25	1012 22	433.96	639 09	139 16	1238 56	125 7	956.73	554.22	1047 82	571 07	1203 44	567 2	1466 15	973 18	1543.73	1063.92	1717.33	1209 63	2074.03	1039.94	3251.54
2501	Sp.Prog Rural Develop		3676.73		3010 04		3415 73		3365 18		3761.67		3975 03		6454.75		7163.14		5371.41		5676.95		4684.42
2505	Rural Employment		10293.15		12496 13		4137 28		17623 24		18610.97		22536 4		25648 65		11870.64		9546.98		11958 34		16942.89
2515	Other Rural Develop Prog	91.44	5678 93	100.17	6951.58	84 03	7311 4	68 94	11337 89	84 27	8663 79	90.54	8855 54	127 49	9796.84	152.1	12534.56	131.5	17737 91	130.27	22223 16	143	30135 07
2551	Hill Areas	54 88	599 86	39 75	649.43	117 03	741 31	70.87	1017 49	63 98	948 94	55 19	1039.23	76 14	1565 12	71 44	1445 05	0 82	1351 27	0 01	1608.48	0 2	1389 26
2701	Major Medium Irrigation	134.23	6937.52	125 81	7348 13	157 62	8089 86	210.55	8044.88	226 78	8920.24	236 91	10762 18	366 79	12164 42	364 48	12625.3	371.27	14897 55	463 72	19012.87	475 18	23608.07
2702	Minor Irrigation	226 8	2412 77	191.8	1513 84	217.7	2099 45	222 83	3269 74	209 43	3760 35	231 61	3978.64	218 97	3861 14	258.09	5192.42	322 69	4605.18	270 32	4181 42	338.34	5763.24
2705	Command Area Develop								778.92		1050.25		1150 55		1147 39		1360.71		1530.96		1869 01		2410 04
2801	Power	0 67	26020	1 05	29300	1 53	29175	1 64	4085	0.26	176977 99	1 52	-0 01	2 61	0.09	20.43		2.32	0 16	2 32		1.50(BE)	
2810	Non-conventional Energy	0 15				-0 15			20.02		276.55		278 36	0 04	456 37		417.36		479.09		253 2		298 16
2851	Village Small Industries	771 11	4762 98	437 98	6859 88	689 51	12921 05	686 63	10493 9	550.9	14499 31	618.75	14918 85	711 28	18086 13	2076.16	17805.01	509.34	21094.32	559.38	23337.54	841 97	16119 99
2852	Industries	191 23	1299 62	27 64	922.06	167 24	821 27	37 75	1493.5	24	2173.51	31 04	1965.46	20 84	1269 11	21.47	3392.05	22.14	2173.14	50 25	1816.78	26 78	1778.07
2853	Non-Ferrous Metals	767 98	118 47	922.83	111 52	2165 34	129 94	5881 11	151 68	2433 09	172 17	6361 86	204.64	5357 25	196.19	6302.78	217 06	6720.58	277 46	7078 07	259 7	10260 69	373.52
2875	Other Industries	11 35		6 5		26.96		289 6	7.77	170.1		13 93		122.02		18.15		10.08		16 36		46.72	1293
2885	Other Industries Metals								93 54		1805 27		2059 04		2233.02		2236.77		4331 65		7413.73		6155.79
3052	Shipping		0 16		0 18		0 42		0.87				0.35		0.68		2.52		0.66		2 31		75.04
3053	Civil Aviation		5 08		9 86		6 23		32.38		7 03		7.31		14.58		3 35		5.18		11.23		8.7
3055	Road Transport	0 21	5 55	35.37	7 85	0.12	0 04	6 16	127.39		813 3		109.2		0.31		0 02		75 75	581.78	0 14	0 01	0 4
3056	Inland Waterways	14 65	73 83	110 86	25 74	81.57	91 58	115 46	89.58	206.84	82 47	252 52	123.53	187.44	128.48	248.9	112.23	240 01	207 28	469 77	821 26	464 45	304 8
3456	Civil Supplies		11548 39		10593 62	0 01	21150 92	110 73	26976 66	227 59	36966 32	768.46	69394 42	335 25	40207 28	284 97	53461 14	273 51	81660 39	145 48	102269.39	137 08	102933 01
3475	Other Gen Econ Ser	168 59	214 16	185 21	304 49	282.34	322.02	303 56	344 46	350	449.51	389.49	551 12	409 72	607 97	527 79	693.28	583.02	765 44	603 72	899 98	517 97	1028.86
3452	Tourism	48 01	35	13 34	58 52	53.2	83.39	45.22	114.18	89 77	109 29	49.16	142.42	173.56	233.82	89.77	484.22	127.41	279 17	217 67	288 79	180	373.91
2048	Reduction of Debt		2352 18		2761 75		2777 49		2777 49		3664 79		3663 48		4273 72		6306 74		8678.38		11240 1		14076.18(BE)
2049	Interest Payments	8249.59	23898 03	7868 97	30504 15	8785 67	36648 75	8970	45553.87	77067 31	55729.54	21119.5	68847 05	27523.95	95651.67	27878.98	108955.22	34282.65	129321 45	34901.22	147562.81	37379.61	176181.41
	Total	24657.43	275940 79	28421 44	304719 78	32000.7	381090.83	30324.09	451876.45	102905 1	730126.12	51810.6	685864 37	61600 37	702820.17	65775.7	775018.74	71821 39	858312.44	74701 43	993134.05	80948.04	1098153.68

the rhetoric of liberal democracy but behave like monarchs of old. According to Tamil Nadu politicians any means – fair or foul – is acceptable to topple their opponents. If wrong economic policies will help achieve it, so be it. Our chief ministers behave like the kings and queens of old opening their treasuries for helping the poor and those whom they consider deserving. Our politicians prefer what I would like to term as the 'rishigarba' (instantaneous birth characteristic of the sages of yore) model of legislation. In other words, the political master suddenly gets an idea that he thinks will be excellent, and that is it. Something is cobbled together in the middle of the night by indifferent bureaucrats who neither know nor care to understand the details or ramifications or the consequences of this bright conception.

Every budget announces newer and newer ill-thoughtout schemes allegedly for improving the well being of the people. Invariably they are targeted towards vociferous groups. In 1997-98 budget were announced 4,000 houses free for fishermen and in 1998-99 subsidised fibreglass catamarans for 100 fishermen. Also were nationalised works of eminent scholars of the past like Kalki Krishnamurti, Thiru Vi K Kalayanasundara Mudaliar, author of film lyrics Elangovan, etc, which will go towards the benefit of their heirs. Such largesse is not limited to the annual budget. Any time is a good time to act for our modern day 'Paari Vallalgal'. On a single day, November 26, 1998, *Dinamani* reported that 28,824 dwellings for police personnel are to get 20 units of electricity per month free of cost; and the *Hindu* informed us that temples, mosques, churches and other places of worship with an annual income of less than Rs 1,000 would be given free electric power limited to one bulb. Once such policies are initiated, they can never be withdrawn. A former member of the State Planning Commission told me of a conversation he had with the chief minister. The expert suggested the withdrawal of power subsidy to the agriculturist only to get the angry retort: "Do you want me to be defeated in the next election?"

This has resulted in a kind of unhealthy Nash equilibrium in Tamil Nadu politics leading to economic inefficiency and social misrule (Figure 2). The two major parties and their supreme leaders Karunanidhi and Jayalalitha in whose hands the fate of Tamil Nadu's economy lies are caught in a prisoner's dilemma which illustrates the divergence between individual and collective rationality. Imagine two burglars are caught with gold. Unless one of them confesses they cannot be convicted and they could be imprisoned for possession of stolen gold. The choices before each of them – now kept separate – are: (a) if both admit to the crime, they will get two-years in prison; (b) if both deny the crime, they will get six-months in prison for possession of stolen gold; and (c) if only one of them confesses, he will be freed and his evidence will send the other to a six-year prison sentence. In this game of outthinking the other what should they do? Invariably both of them will confess because that is the safest. Why? If the other confesses, confession results in a two-year prison life and not confessing will get six years. If the other does not confess, keeping mum will get six months but confessing will get him freedom.

If we substitute 'inefficient and wrong economic policies for short-term political ends' for 'confessing', and 'efficient and well thought out policies for the long-term benefit of the state' for 'keeping silent', we can see the situation clearly.

What this game associated with the eminent mathematician A W Tucker concludes is that there is a sharp divergence between individual and collective rationality. In a sense, this is what the philosopher Immanuel Kant said, wrong conduct is self-contradictory. Thus if everybody were a thief, there would be nothing to burgle, and to be a thief ceases to be profitable although it is obvious that such a society cannot be civilised or prosperous. But short-term political gains, immediate financial gratification and widely prevalent apathy and ignorance indicate that Tamil Nadu has a long way to achieve equity and efficiency in its economic system in general and in the administration of subsidies in particular. Unless the Harberger[21] condition of a political consensus concerning the broad outlines of the right kind of economic policies is met, the future of Tamil Nadu's economy cannot be anything but bleak.

Appendix B

When one is far away from any problem, his analysis of it and solutions suggested are based on statistics, hearsay, attitudes, assumptions and so on that he imbibed during the period of his education. Invariably due to a desire to keep oneself uninfluenced by value judgments, economists in particular place much faith in statistics. This raises an important consideration that I have been concerned with for a long time. Whether Marx's dictum about religion being an opium of the ignorant masses is correct or not, it would appear that statistical tables are the opium of the economists. They always complain of the inferior quality of this available opium but never really worry about the quality of the stuff they consume. It always gives them the necessary 'kick' to forget the hard reality which they are supposed to explain and remedy. Can statistics capture the full reality of the grim situation? The subsidies question is a prime example how purely axiomatic and/or statistical approaches lead to a total misunderstanding of the consequences. After spending a few weeks studying the question through statistical tables and government reports from the comfort of well

appointed office space in Madras, I spent a couple of weeks wandering around my native district and these are what I heard.

"Sir. I am a very poor man and the surgeon was wonderful. When I went to thank him and wanted to give a small token sum for saving my life, he drove me away saying that if he wanted to take money from me, he would have asked me to be admitted in his private clinic. As a government doctor, he said he did his duty. Dr Avudaiappan is 24ct gold. But the days I spent in the "High Ground Hospital" were very bad. For shaving me prior to the operation, I had to give Rs 40 to the hospital barber. Another Rs 50 for the bearer who brought me from the operation theatre lest I was dropped with a thud in the bed. Every time I had to have an enema, a minimum of Rs 25 for the nurse. Sir the government thinks it is giving us free medical treatment, but it is not free for poor folk like me."

"It is the same every day sir. The 'saar' will come by the 9.30 bus. Settle down and do some gossip with the other 'saar'. He will shout at us for some time and settle down in his chair. By 12.30 he will eat and take a nap. We eat the food prepared by the acchi. At 2.00 he will wake up and have a conversation with people around and we are left to play on our own. He will take 3.45 bus and go away".

"The ration shop never opens on a regular basis. Rarely things come and we have to stand for long hours. Whenever we get anything, it is always at least 20 per cent less than what we are supposed to get. When we question we are asked to go to junction (Tirunelveli) and complain to the officers. Is it possible for us? So we accept whatever we are given. They sell all the ravai to the town hotels".

"Yes sir. It was great. It will still be a help during my daughter's wedding. I got Rs 2,500 odd net from the Moovalaur Ramamritam Ammaiyar wedding scheme. I had to spend a lot of time and money but still I was better off. Out of Rs 5,000 announced, after all my expenses, at least I got half of it."

The first three statements are crude translations of the expressive and beautiful Tamil spoken only in southern Pandya country and the fourth from a suburb of Trichy. I have summarised the much longer descriptions of the goings on. All my informants are poor and they belong to naidu, thevar, dalit and mutthuraja castes respectively. Is there anything common in all these four statements? They represent the end result of subsidy policies consciously adopted by the government supposedly to increase the well-being of the common people. What do they signify for our economy and polity?

Notes

[I am grateful to K R Palanidurai, full time member of the State Planning Commission of Tamil Nadu, for his help in the preparation of this article. He provided not only hard to get statistical data but also valuable insights into the administration of the subsidy regime in Tamil Nadu. An earlier version of this article was presented to a seminar on 'government subsidies in India' held at the Institute of Social and Economic Change, Bangalore on November 10 1998.]

1 For detailed data see Appendix A. The recovery rate figure for 1977-78 is from M Govinda Rao and Sudipto Mundle, 'An Analysis of Changes in State Government Subsidies 1977-87' in Bagchi, Amaresh et al (ed), *State Finances in India*, Vikas Publications, Delhi 1992.

2 The main data source is: *Policy Note on Food Civil Supplies and Consumer Protection* placed on the table of TN Legislative Assembly, 1998, Demand No 34.

3 All data concerning PSUs are from *Re-structuring of Public Sector Enterprises in Tamil Nadu* a report by the S V S Raghavan committee appointed by the TN government, Chennai, 1998.

4 See Madras Institute of Development Studies, *Tamil Nadu Economy Performance and Issues*, Madras, 1988, p 246.

5 See S Guhan, *Irrigation in Tamil Nadu: A Survey*, MIDS Working Paper, Madras, 1984.

6 'Input Subsidies in Indian Agriculture: A Statewise Analysis', *Economic and Political Weekly*, June 24, 1989.

7 As I was putting together this article I read in the *Hindu* (November 16, 1998) a news item which said "The 'CUT' in every contract". It clearly said "Every hand a file passes through during tendering has a percentage share which totally works up to 13 per cent of the total estimate of the work". I have not seen any denial from the government quarters. This was about construction contracts in Chennai Corporation but need we doubt that similar is the situation prevailing in every instance where the government undertakes expenditure to do something for improving the well-being of the common people?

8 'Two Errors of Targeting' in Dominique van de Walle and Kimberley Nead (eds), *Public Spending and the Poor: Theory and Evidence*, World Bank and John Hopkins Press, Baltimore, 1995, pp 350 ff.

9 See D Narasimha Reddy, 'Growth and Spread of State Subsidies: Andhra Pradesh Experience' and Jose Sebastian, 'Issues Relating to Subsidies in Kerala' papers read at the Institute for Social and Economic Change, Bangalore on November 10, 1998. See also K Madhava Rao and Duvvuri Subba Rao, 'The Hidden Cost of Subsidy' *Economic Times*, July 8, 1996

10 'Subsidies. How to Cut Them without Pain?' *Economic Times*, January 22, 1992.

11 'Workshop on PDS sponsored by the Department of Administrative Reforms and Public Grievances, Government of India' organised by the *Federation of Consumer Organisations*, Tamil Nadu on September 27, 1998 at Chennai.

12 Cited in Dominique van de Walle, 'Targeting Revisited', *World Bank Research Observer*, Vol 13, No 2, August 1998, p 238.

13 'A Vision of the Growth Process' presidential address delivered on January 4, 1998, *American Economic Review*, Vol 88, No 1, March 1998, pp 1ff.

14 David E Sahn and Harold Alderman, 'The Effect of Food Subsidies on Labour Supply in Sri Lanka', *Economic Development and Cultural Change*, October 1996, Vol 45, No 1, p 137.

15 See his 'The Political Economy of Targeting' in Dominique van de Walle and Kimberley Nead (eds), *Public Spending and the Poor Theory and Evidence*, Johns Hopkins University Press, Baltimore, 1995

16 Many authorities have suggested that schemes like the Employment Guarantee Scheme of the type Maharashtra government has are far superior to PDS in terms of both equity and growth. See Kirit Parekh, 'Do we Really Care for the Poor', *Economic Times*, June 1997 and 'EGS or PDS: Assessing Subsidies', *Economic Times*, July 7, 1997. M H Suryanarayana has explored the possibility of using food stamps to reduce the burden on public finances. See his 'Some Experiments with Food Stamps', *Economic and Political Weekly*, December 30, 1995.

17 Not that we need to remind our Tamil-loving politicians of this. They would be quite aware of what the grand old lady of medieval Tamil literature Avvaiyar inscribed in her *Vaakkundam* (11) "From the beginning it is the rice which germinates; nevertheless, should the husk be taken away, it will not germinate; even those who possess great power are incapable of completing the work they have undertaken, without instruments". There is no need to remind our rulers of Book II of Thiruvalluvar's *Thirukkural* which highlights the need for effective and just governance. It is interesting to note that not a single annual budget speech of the finance ministers of DMK (Karunanidhi) and AIADMK (Nedunchezhian) is without a beautiful quotation from this classic.

18 Vadilal Dagli Committee; *Report of the Committee on Controls and Subsidies*, (Government of India, Delhi, May 1979), pp 44-45. Indeed as early as 1967 the late Raj Krishna had argued that subsidies are basically short-term remedies and not to be used over a long period. See his 'Agricultural Price Policy and Economic Development' in Herman Southworth and Bruce Johnstone (eds), *Agricultural Development and Economic Growth*, Cornell University Press, Ithaca, 1967.

19 'Subsidy Syndrome in Indian Agriculture', *Economic and Political Weekly*, September 30, 1995.

20 *The Taxation Enquiry Commission* of Kerala government made a prophetic statement as early as 1969: "But once people are used to a free or subsidised service, it is only at grave political risk that the subsidy element could be withdrawn. In fact the more widespread such services are the greater is the political risk involved in the discontinuance of subsidies". Cited in p 22 of Jose Sebastian, 'Issues Relating to Subsidies in Kerala: A Politico-Socio-Economic Perspective', paper read at the Institute of Social and Economic Change, Bangalore on November 10 1998

21 See Harberger's paper cited earlier.

Dalits and the BSP in Uttar Pradesh

Issues and Challenges

Pradeep Kumar

After establishing its monopoly over dalit votes, especially the numerically strong jatavs and pasis, the BSP is attempting to turn the electoral arithmetic in Uttar Pradesh in its favour by wooing the upper castes who are no longer in direct conflict with the dalits in view of the structural changes in rural India. The BSP undoubtedly has instilled self-respect among the UP dalits through its strategy of single-mindedly pursuing electoral power. Yet, its neglect till now of well-thought out programmatic content, besides its loose hold over other dalit castes and MBCs, can prove a hindrance to evolving a more inclusivist agenda for the future.

THE word dalit was never a familiar word for the lower castes in Uttar Pradesh before the BSP popularised it in last one and a half decades or so. A better understood word was 'harijan' or simply 'scheduled castes' in view of their categorisation by the Indian Constitution for purposes of protective discrimination, etc. The shift from harijan to dalit was not without purpose. A fierce debate took place between the detractors of Gandhi and his supporters about the alleged motives of the former behind the popularisation of the word for the lowest of the low castes of the Hindu society. The term harijan was indeed used by Narsinh Mehta, a poet saint and reformer of Gujarat (17th century) which was later popularised by Gandhi in the 20th century. Incidentally, the term was also used for the children of the devdasis, the temple prostitutes, who were also technically the children of the gods (harijans), but were looked down upon in the society for their low socio-economic status. The debate continued in Indian media and academic circles for a long time in the 1990s when Kanshi Ram and Mayawati took exception to the use of the term for those whom now the BSP called 'dalits'.

The BSP duo went a step further and imputed motives to Gandhi, using almost derisive, if not abusive language, for him which made the Gandhians retort in a big way. Gandhi was pitted against B R Ambedkar, E V R Naicker (Periyar) and Shahu Maharaj (of Kolhapur) by the BSP. Mayawati during her chief ministership celebrated Periyar and Ambedkar melas (festivities) in a big way in UP, and when she was carving out, districts after districts in the state, she named quite a few after these 'low caste' leaders – namely, Gautam Buddha, Ambedkar, Shahu Maharaj, Sant Ravidas, Mahamaya (Buddha's mother), Jyotiba Phuley, etc – none of whom (except Ravidas) actually had much to do with UP. Interestingly, many of these names (except Ravidas and Ambedkar) were perhaps not even known to many in the state.

While the academics indulged in an unending debate about Gandhi's possible motives in using the term harijan, the BSP raised yet another issue of Gandhi being addressed as the 'Father of the Nation'. All this debate which at one time became quite acrimonious was carried out not without purpose. The BSP was actually interested in asserting that the low castes, now termed dalits in UP, were in no mood to accept the patronage of the caste Hindus. Any reference therefore to Gandhi's goodwill/sympathetic gestures towards the harijans only infuriated the dalit leaders. Even the term scheduled castes, popularised by the constitutional provisions for reservations, which had become a commonly understood nomenclature for these castes, was dropped in preference for dalits. This was natural for the kind of politics that the BSP was looking forward to. The terms like 'bahujan samaj', harijan, scheduled castes, etc, denoted only social and administrative identities of these lower castes, and smacked of either patronage or affirmative action on the part of the state. In short, these were too 'soft' to be used in a political battle for assertion. The academics only fell in the trap and endlessly debated the history and genesis of these words, while the BSP succeeded in galvanising a very large section of the dalits to its political programme which precisely meant nothing more than voting for the BSP candidates in the vidhan sabha and the Lok Sabha elections.

Unlike the earlier incarnations of dalit politics, the BSP hardly talks about any serious social or educational blueprint. Its firm belief seems to be to take control from above, by jumping into the electoral fray which alone is a key to power in an electoral democracy. This accounts for Kanshi Ram's sole concentration on transfers of the IAS officers in UP during Mayawati's stint as chief minister, and this also partly explains the absence of any serious academic or intellectual discourse on dalit politics or Hindu order *a la* Phuley, Ambedkar or Periyar

Rise of the BSP

The BSP began as an outfit of the government employees under the banner BAMCEF, i e, Backward and Minority Communities Employees' Federation in 1978 as the brainchild of Kanshi Ram. It gradually developed into a political party when its activists' wing, Dalit Shoshit Samaj Sangharsha Samiti (DS-4), established in 1982, finally gave way to the BSP. It is true that this party originally claimed to mobilise the minorities (read the Muslims) in addition to all the non-'dwija' castes (the term 'bahujan' precisely implied the numerical majority of the non-dwija castes), but at no point of its growth could it ever seriously make a dent in the backward caste votes, the OBCs. Even the Muslim support was never statistically proved, and in fact a section of the Muslims actually got annoyed by its leader Mayawati, at one point of time, accusing her of accusing them of disloyalty.

However it had a breakthrough in the three vidhan sabha by-elections in UP in 1987 when the BSP got 26.3 per cent of the valid votes. The party was successful in drastically reducing the winning margins of the Lok Dal (from 21.93 to 0.70 per cent compared to the previous elections), and the BJP (from 9.86 to 0.20 per cent). It was in Hardwar Lok Sabha by-election that the Janata Party stalwart Ram Bilas Paswan lost his security deposit. Even Jagjivan Ram's daughter, Meira Kumar, could win the Bijnore Lok Sabha seat on Congress(I) ticket by a thin margin of only 5,000 votes, even as the BSP

candidates in these constituencies scored 26 per cent and 18 per cent votes respectively.

In the 1989 Lok Sabha elections, the party won three Lok Sabha seats with 2.4 per cent all-India votes from the 235 Lok Sabha constituencies where it fielded its candidates. It therefore emerged as the sixth all-India party in terms of votes polled, next to the CPI with 2.67 per cent. Unlike the other Ambedkarite groups which were eventually marginalised in the national politics, the BSP continued its electoral gains [Kumar 1990] and successfully got recognised as a national party by the Election Commission of India in 1997, ironically on the eve of the 12th Lok Sabha elections when its supremo Kanshi Ram lost his seat from Saharanpur in UP, and its tally in the Lok Sabha was reduced from six to merely five. A glance at party's performance from 1989 to 1998 elections in UP shows the grounds that it has broken in last few years (Table 1).

In the UP vidhan sabha, the party has increased its tally considerably from 13 in 1989 to 66 in 1993 which has for the time being stabilised around this figure as the party retained almost the same figure (67) in 1996 assembly elections in the state. Its vote share also remained almost static between 1996 Lok Sabha elections (20.6 per cent) and 1998 elections (20.7 per cent)

Shift in the Support Base

Important to note, however, is the fact that the BSP has almost monopolised the dalit votes in general, and the chamar (jatav) votes in particular, in UP. An analysis of the 1996 (Lok Sabha) elections in the state shows this very clearly. The BSP secured less than 3 per cent of upper caste votes, 4.3 per cent of yadav votes, between 15 and 20 per cent of the peasant, artisan and other backward castes votes, nearly 25 per cent of koeri votes but it got 45.7 per cent of pasi votes, and a very high 73.8 per cent of the chamar votes. Its tally among the dalit votes in general was 60.6 per cent, which was fairly high. Thus, except the koeris, no other backward castes had any particular closeness to the BSP. The latter's monopoly of chamar votes is matched by the SP-JD's control over yadav and Muslim votes which was 72.7 and about 71-73 per cent respectively, or the BJP's hold over the upper castes like brahmin (64.9 per cent), kshatriya (66.7 per cent), vaishya (72.1 per cent), other high castes (66.7 per cent) (Table 2).

It will be interesting to take a comparative look at the performance of the BSP and some other political parties among the various caste-class groups in the last two Lok Sabha elections in UP. As is revealed from Tables 3 and 4, the hold of the BSP on the SC votes is on decline; it came down from 59.2 per cent in 1996 to 50.5 per cent in 1998. The BJP, on the other hand, increased its share of the dalit votes from 10 per cent to 18.4 per cent in the same period. As a corollary of this, dalits constituted only 64.5 per cent of the total BSP votes in 1998 as against the 1996 elections when almost 80 per cent of the BSP votes came from this caste group alone. It was the BJP which in fact increased its share of the dalit votes from 6.5 per cent in 1996 to 10 per cent in 1998. While there has been negligible change in the OBC support of the BSP, it has ironically gained ground among the upper castes. While only 3.6 per cent of the BSP's voters in 1996 came from these castes, this percentage went up to 10.2 in 1998 even though it remained quite insignificant (4.1 per cent) when calculated as a part of the total upper caste votes.

It would be worthwhile to examine if this shift from dalit up upper caste support base was also reflected in the class composition of its voters. Tables 5 and 6 indicate that while 44.7 per cent of the BSP's total votes in 1996 came from the very poor sections of the society, this percentage drastically declined to 25.2 in 1998. As a natural consequence of this, the percentage support from among the middle and the upper classes increased, which was more revealing in case of the support from the upper classes who constituted 7.1 per cent of the total BSP votes in 1998 as against only 1.2 per cent in 1996. Thus, while in 1996 the BSP cornered the largest percentage (35.7) of the very poor voters, in 1998 it was replaced by the SP and the BJP in this respect which polled 28.9 and 25.9 per cent of the very poor category of votes, leaving the BSP the poor third with only 19.4 per cent votes in this category. Similarly, in the category of poor voters, the BSP's score (19.4 per cent) was lower than that of the BJP (33.5 per cent) and the SP (20.8 per cent) in 1998, even as it had scored the maximum in this category in 1996 along with the BJP, each of which polled as many as 24.3 per cent of the poor votes. On the other hand, the BSP's share in the upper class votes improved from 1.6 per cent in 1996 to 8.5 per cent in 1998.

The comparative analysis of the two Lok Sabha elections may relate to too short a period to look for some tangible and sustainable trends in the shift in the party support base. However, it may be partly ascribed to the BSP's increasing

Table 1: Performance of BSP in UP

Years	1989		1991		1993	1996		1998
Legislature	VS	LS	VS	LS	VS	VS	LS	LS
Seats	13	2	12	1	66	67	6	5
Votes (per cent)	9.4	9.9	9.3	8.7	11.1		20.6	20.7

Note: LS – Lok Sabha; VS – Vidhan Sabha.

Table 2: Who Voted Whom: 1996 (Lok Sabha Election, Castewise Detailed Analysis, Uttar Pradesh)

Caste	INC	BJP	JD+SP	BSP	INC(T)
Brahmin	9 6	64.9	5.3	–	4.3
Kshatriya	5.0	66.7	6.3	–	8.0
Vaishya	4.4	72 1	5.9	2.9	1.5
Other high castes	2.6	66.7	9.0	2.9	1.5
Non-OBC peasant	11.3	17.0	34.0	1.9	–
Yadav	8.6	7.2	72.7	4.3	–
Kurmi	–	48.3	24.1	–	–
Koeri	12.9	34.1	24.7	24.7	–
Pal gareria	–	54.9	13.7	11.8	–
OBC I peasant	4.2	52.1	16.7	16.7	–
OBC II artisan	9.6	39.5	21 9	14 9	1.5
OBC III others	4.4	35.3	17.6	20 6	–
Chamar	4.7	7.5	5.6	73.8	2.2
Pasi	8.7	2.2	30.4	45.7	1.0
SC others	11.5	11.5	6.7	60 6	–
Muslim status NA	6.7	–	73.3	–	–
Muslim low	7.5	–	72.0	6.5	–
Muslim high	4.6	3 1	70.8	3.1	–
Miscellaneous categories	7.7	23.1	23.1	23.1	–
Total	7.0	33.5	26 5	17.6	2.1

Note: Rest voted for other small parties or independents.
Source: CSDS Datta Unit.

realisation that mere reliance on the dalit votes (only a section of whom has been successfully mobilised by the party) would not turn the electoral arithmetic in its favour. This has made it broaden its support base by making attempts to woo the upper castes, many of whom are no longer in direct conflict with the dalits in view of the structural changes in the rural India where the 'neo-exploiters' of the dalits happen to be the landowning OBCs; the little progress made by the party in the OBC vote bank may be precisely for this very reason. The decline in dalit support for the BSP may also be partly on account of the alienation of some sections of the dalits from the BSP in view of its increasing identification (discussed earlier) with only a few sub-castes of the dalits. Consequently, while the chamars and the pasis tend to monopolise the BSP's electoral base, the other sub-castes such as the balmikis, the shilpkars, and the artisan castes tend to vote for the alternative formations like the BJP, which has also succeeded in mobilising a sizeable section of the dalit voters.

The BSP's strategy of broadening its base by making inroads into the upper caste votes is not new. Even in the vidhan sabha elections held in September-October 1996, it had entered into a pre-election alliance with the INC with the proclaimed objective of getting the support of the upper castes, who in the BSP supremo's political scheme were to vote for the INC candidates. The then Congress president, Sitaram Kesari, was specifically 'advised' by Kanshi Ram to give tickets to upper caste candidates. Whether the shift evident in the 1998 Lok Sabha elections actually reflected the outcome of this strategy, or was only an aberration on account of technical faults in the survey data, will be known only after it is substantiated by elections to be held in near future.

Mobilisation from Above

What has happened over the years is a considerable rise in the political consciousness of the dalits in some north Indian states. This has been translated into the support for the BSP, which unlike the earlier Amedkarite groups is a militant party, not in the ideological of programmatic sense but in the political sense of the term. While the earlier dalit outfits like the Dalit Panthers spent time and energy on issues like reinterpretation of the religious texts, resulting in the publication of distinct dalit literature from below, the BSP's only strategy has been to attack its opponents in as militantly and aggressively transparent a language as possible.

It has spared no effort in being absolutely crude and unconventional in its electioneering, and has restrained from 'wasting' energy on efforts aimed at revolutionising the dalit social consciousness. The project of Ambedkar villages in UP which began in Mulayam Singh Yadav's chief ministership and was carried forward during Mayawati's tenure, is no doubt aimed at socio-economic upliftment of the dalit population. But much of this amounts essentially to "social engineering from above" [Pai 1997]. Kanshi Ram actually targeted the relatively educated sections among the dalits, particularly from the bureaucracy, from where began his original outfit BAMCEF.

The relatively fair representation of the dalits in bureaucracy, thanks to the reservation policy, made him concentrate on these bureaucrats during his party's rule in Lucknow when a major task of his party's chief minister Mayawati was to order a reshuffle in UP bureaucracy to ensure the 'right' kind of bureaucrats in the sensitive and important positions. Thus, the dalit bureaucrats became 'agents' of social change. Holding of Periyar mela in Lucknow, installation of a very large number of statues of Ambedkar (15,000 according to one estimate), renaming of almost every new district after a supposedly dalit hero, extension and expansion of the Ambedkar village scheme, naming of roads, libraries and parks after the 'dalit heroes' created a political fervour and sensitised the dalit masses on these issues.

Though all this was done purely on the political plane, yet this 'mobilisation from above' had its desired consequences. In the absence of any seriously thought out ideological content, this strategy became a good substitute for a dalit ideology in the state, and paid rich political dividends at the time of elections. This strategy of the party has "generated in parts of UP, a socio-cultural process of 'Ambedkarisation', i e, a tremendous growth in the consciousness among dalits about the life and ideas of Ambedkar" [Pai 1997]. It was reminiscent of M G Ramachandran's use of term 'Annaism' (ref C N Annadurai) to describe his AIADMK's party-ideology, without ever defining what it actually meant. Indira Gandhi's 'garibi hatao' slogan also aimed at 'radicalism' sans any concrete action programme. This strategy of the BSP has created "enclaves of development benefiting the rising entrepreneurial groups among the forward rather than the really poor dalits and BCs, creating greater social fragmentation, jealousy, caste tensions and alienation" [Pai 1997].

Table 3 Performance of BSP and Some Other Parties by Caste (UP Lok Sabha Elections, 1996)

Caste Groups	INC	BJP	JD	SP	BSP	Others	Row Total
SC	9.4	10.0	3.2	7.1	59.2	*	21.7
	29.3	6.5	10.4	8.1	72.9	*	
ST	–	25.0	–	–	50.0	*	0.3
		0.2	–	–	0.8	*	
OBC	6.0	29.3	7.2	35.5	9.8	*	40.7
	35.4	35.6	43.8	75.5	22.7	*	
Upper	6.6	52.0	8.3	8.5	1.7	*	37.3
	35.4	57.7	45.8	16.5	3.6	*	
Total	7.0	33.6	6.7	19.2	17.6	*	100.0

Notes: * Rest voted for other miscellaneous parties.
All figures in this and and subsequent tables are in percentages and relate to votes polled

Source: Data used in these and other tables in this article is taken from the post poll surveys conducted by the CSDS, Delhi. The author was associated with this data collection at various stages

Table 4: Performance of BSP and Some Other Parties by Caste (UP Lok Sabha Elections: 1998)

Caste Groups	INC	BJP	JD	SP	BSP	Others	Row Total
SC	8.0	18.4	–	9.0	50.5	14.2	19.6
	21.5	10.0		7.4	64.5	16.0	
ST	–	30.0	–	40.0	10.0	20.0	0.9
		0.8		1.6	0.6	1.1	
OBC	6.8	30.6	0.7	30.4	9.2	22.3	41.0
	38.0	35.0	100	52.5	24.7	52.7	
Upper	7.7	50.7	–	23.8	4.1	13.7	38.4
	40.5	54.2	–	38.5	10.2	30.3	
Total	7.3	36.0	0.3	23.8	15.3	17.4	100.0

Source: Same as in Table 3.

Besides this, the chamars have been the major beneficiaries of the party's strategy of relying on bureaucrats for implementation of party programme from above. This is natural in view of the jatavs (chamars) being the most powerful group in the dalit bureaucracy of the state where, thanks to job quotas and self-efforts, these have become neo-brahmins among the dalits. The kureel/jatavs holding class I jobs compare favourably with the brahmin, kayastha and vaishya communities in UP [Pai 1997].

Another major drawback of this strategy has been that it relies very heavily on the state machinery, which may be alright but for the fact that it is rendered absolutely useless when the party is out of power. Much of the gains made during the party's reign could be easily frittered away by the rival political parties even if it is politically not expedient for any ruling party to reverse the process. It is evident in the Ambedkar villages-scheme which was initiated in 1991 during Mulayam Singh's chief ministership, but taken up by all the subsequent political formations in the state capital. It is however doubtful if a non-dalit mainstream party would show the same zeal even as it may formally accept the scheme.

Finally, the party strategy of enclave development is not aimed at 'revolutionising' the dalits. As is often argued, any attempt at broadbasing a community ironically retards the process of the making of a revolutionary consciousness [Nadkarni 1997]. But then a revolution has never been on the party's agenda, and its greatest emphasis although has been on the quick dividends from the assertion of a dalit political identity, entirely epitomised in the BSP seats in the legislatures.

BSP's Technological Rationality

Whatever the limitations of the BSP strategy, it has successfully begun a political movement among the dalits in UP who were looking forward to a political party in view of the vacuum created by the almost total collapse of the Congress Party in terms of its possibility of forming the government in UP. It may be mentioned here that while the Congress decline is far from complete at the national level where it continues to be the second largest party after the BJP, it has almost disappeared from UP. The party secured only five seats with barely 8 per cent votes in 1996 Lok Sabha elections, and has drawn a blank in the 1998 Lok Sabha elections. In the vidhan sabha poll held in September-October 1996, which the Congress contested in alliance with the BSP, the former's seat share went down to 33 which in a way forced the somewhat politically impatient BSP to drop its political ally in favour of the BJP from whom it 'grabbed' chief ministership for its leader Mayawati for the first half of the year.

It is important to note that the BSP's success lies not in its electoral victories alone, but more so in its capacity to bargain. Kanshi Ram's strategy of militant dalit assertion forced a party like the Congress to give almost 300 out of 425 vidhan sabha seats to its 'junior' partner, the BSP (UP vidhan sabha poll 1996), so much so that in a press conference, widely televised, the party supremo of the BSP asserted in the presence of the Congress leaders that the BSP had deliberately chosen a 'weak' partner like the Congress in view of the 'dependence' of such a partner on BSP.

In a way the BSP's focus on acquiring political power, more particularly the chief ministership, by all means, actually aimed not so much at introducing social engineering from above (as some analysts would have us believe) as inspiring the dalits by putting a dalit at the helm of affairs. It is important to remember, the real problem in the rural areas is not so much of the unavailability of resources as it is about the 'inaccessibility'. The issues like 'begar' (forced labour) and high incidence of illiteracy among the dalits and some of MBCs can be taken care of, not merely by greater allocation of funds for these purposes. These are essentially questions which are linked to the greater issue of political empowerment.[1]

Similarly, the public humiliation meted out to the upper castes in general, and some senior bureaucrats in particular, was not a result of the BSP leader's short temperament. It meant the "dalit power to tame upper caste establishment". This may sound very short-lived to a rationalist, and the party leaders may be accused of taking short cut routes, but this does help to inspire its voters.

Kanshi Ram's assertions in public that his party is not for 'stability' but for 'instability', his candid acceptance that his party was somewhat opportunistic and wanted its own chief minister by entering into any alliance which made that possible in UP, all point to this strategy of political assertion. To argue that the party's aim is to destabilise the system, when everyone else is talking about stability, sounds quite revolutionary, even though this is not followed by any programme for the dalits.

The BSP's strategy has undergone some change ever since it flirted with the mainstream parties like the BJP and the Congress. It shared power with the former in 1995 and 1997, and had a pre-election alliance with the latter in 1996, which later broke down when the Congress failed to muster enough support for the BSP chief minister in UP. Besides these alliances, the party had earlier entered successfully into an alliance with the SP. Most of these alliances, even though strange on a cur-

Table 5: Performance of BSP and Some Other Parties by Class (UP Lok Sabha Elections: 1996)

Performance	INC	BJP	JD	SP	BSP	Others	Row Total
Very poor	10.1	18.2	6.8	15.6	35.7	*	21.8
	31.0	11.7	22.8	17.5	44.7		
Poor	7.4	24.3	7.4	20.7	24.3	*	23.9
	25.0	17.2	27.2	25.5	33.3		
Middle	5.8	41.7	4.6	22.1	8.7	*	41.3
	34.0	51.2	29.3	47.1	20.7		
Upper	5.4	51.4	10.3	14.6	1.6	*	13.1
	10.0	19.9	20.7	9.9	1.2		
Total	7.1	33.7	6.5	19.4	17.4	*	100.0

Note: * Rest voted for other miscellaneous parties.
Source: Same as in Table 3

Table 6: Performance of BSP and Some Other Parties by Class (UP Lok Sabha Elections: 1998)

Performance	INC	BJP	JD	SP	BSP	Others	Row Total
Very poor	3.0	25.9	–	28.9	19.4	22.9	19.7
	8.0	14.2	-	23.5	25.2	26.3	
Poor	9.3	33.5	0.3	20.8	19.4	16.6	34.8
	44.0	32.5	33.3	30.0	41.5	32.7	
Middle	8.4	39.1	0.6	25.7	10.7	15.5	32.8
	37.3	35.8	66.7	[illegible]	23.2	29.7	
Upper	6.2	49.2	–	22.3	8.5	13.8	12.7
	10.7	17.5	–	11.7	7.1	10.3	
Total	7.3	35.8	0.3	24.2	15.2	17.1	100.0

Source: Same as in Table 3.

sory look, had an element of 'market democracy'. Kanshi Ram had eyed the non-dalit votes, like the backward castes and the upper castes, to compensate for the party's numerical handicap. He had hoped that Mulayam Singh Yadav's SP would fetch powerful backward caste votes which were needed despite dalit's antipathy to most of these castes. Later, he toyed with an idea of getting upper caste support by joining the Congress alliance. The Congress had by then (1996) been reduced to small pockets of the upper castes in UP, and Kanshi Ram even reportedly advised the Congress chief, Sitaram Kesari, to field some upper caste leaders on Congress ticket so as to compensate for the BSP's lack of support among these castes. Thus, 'technological rationality' rather than any ideology was the party's clear choice. This did not always pay dividends, is quite another matter.

The BSP did not resort to alliance game without reason. The party has of late realised that it was not capable of garnering sufficient support from the backward castes which have no love lost for the dalits. In fact, the backward-dalit antagonism in rural India, discussed earlier in this paper, does not allow the party to broaden its base. The thevar-pallar clashes in Tamil Nadu, the kurmi-chamar antagonism in UP, are very well known. The class interests of the backwards who happen to be neo-brahmins after land reforms and green revolution, tend to clash with the dalits many of whom continue to be landless in rural India. In fact when the party came close to the 'manuvadi BJP', it was hoped that the alliance would be more workable than the SP-BSP alliance, as the antagonism between the upper castes and the dalits is no longer as sharp as it is between the backwards and the dalits, in view of the changed landownership patterns in the last two or three decades. It did not work well, is another story but still the BSP-SP rivalry continues to be somewhat more serious than BSP-BJP rivalry.

The powerful backward caste of the kurmis was earlier mobilised by the BSP but soon it was realised by the two that the economically and numerically powerful kurmis would not be comfortable in an essentially dalit dominated formation. The splits in the BSP in 1995, and walk out of Ram Lakhan Verma (an aspirant for chief minister's post) symbolised the kurmi revolt in the BSP (*Pioneer*, November 6, 1995, Delhi edition). The Kurmi Mahasabha was sufficiently active during these days and the newly formed, even though eventually marginalised, Apna Dal, marked the alienation of the kurmis from the dalit leadership of the BSP. It was this challenge which perhaps forced the BSP to look for greater support from among the potential friends of the party. Consequently, a large number of rallies were organised to mobilise the nishads, the pasis (traditionally engaged in swine husbandry, numerically second powerful dalit subcaste after the chamars), the dhobis, the khatris, the kewats, the kushwahas (the traditional vegetable growing caste, variously known as the sainis, the mauryas, the malis, the shakyas, etc). This was a must to dilute the party's image essentially being that of a chamar political outfit (*Pioneer*, April 9, 1994). The efforts of the party to revive and reconstruct the legacy of Maharaj Lakhan Pasi, a ruler of Lucknow around 1100 AD and who supposedly gave his name to Lucknow, were aimed at catering to the second dominant group among the dalits. The function organised at Maharaj Bijli Pasi's fort (Lucknow) was to boost up the caste morale by giving the community a sense of pride in its history.

Conclusion

These strategies of the dalit elite have paid rich dividends to the party in view of the emergence of a relatively economically well off and politically autonomous elite among the dalits. The various empowerment schemes and reformative measures taken up by the state over the years for amelioration of the poor, have actually brought the dalit castes out of the electoral passivity which characterised their behaviour till the 1950s and the 1960s of this century. Lack of development and education among these castes had earlier kept them as vote banks of various mainstream parties where they could only be used as a junior partner of a broad Muslim-brahmin-SC alliance. Even the backward castes were initially part of this larger group. But the various constituents of this conglomeration particularly after the dismemberment of the Congress dominant system got disengaged and the dalit elite emerged as an independent force in UP politics in the eighties.

The greatest challenge before the BSP remains to unite, if not 'homogenise' the dalits. As is evident from dalit-dalit clashes in several parts of the contrary, 'dalit' is as much an artificially constructed category as 'backward'. In UP alone there are some 66 castes[2] listed as dalits, and the chamars, the pasis, the balmikis, are only some of the relatively numerous ones. The distribution of benefits of different governmental reform programmes, has often unevenly benefited these sub-castes among the dalits. Often in league with some powerful backward castes which were influential in guiding the government officials in identifying the 'poor' in the villages, some sub-castes benefited more than others.

The BSP will also have to work hard in the meanwhile for forging a political unity (even if it solely relies on electoral politics) of all the groups that have somehow remained either immobilised, or are still looking for a political party which could articulate 'primarily' their interests. These include the hitherto neglected dalit castes such as balmikis, doms, khatiks, kols, kanjars, nats, kalabazs and badhiks, etc, besides, some of the MBCs and the scheduled tribes, many of whom are extremely backward in all respects, also are in need of attention. This combination, if pursued vigorously, will inflate the numerical support base of the BSP in addition to making its agenda look more rational and inclusivist.

Notes

1 In a very perceptive study of the musahars (an extremely poor sub-caste of dalits) in a Ghazipur village of east Uttar Pradesh, P Sainath, a writer-journalist, observed that the Kanshi Ram-Mayawati phenomenor has helped improve the situation with regard to forced labour (begar). The awakening among these musahars has made it possible for some of them to stand up to those who have been forcing them to do 'free labour'. See P Sainath, *The Hindu*, April 5, 1998.

2 The scheduled castes in UP, among others include such sub-castes as agaria, badhik, bahelia, balmiki, dhanuk, dhobi, dom, dusadh, gwal, kalabaz, kanjar, banmanush, bansphor, bawaria, shilpkar, jatav, sansiya, nat musahar, kol, khatik, etc.

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1999-2000 Budget and the Industrial Sector

J C Sandesara

The examination of the budget proposals for 1999-2000 for their impact, short and long term, on industrial growth. Also discussed are the larger questions of GDP growth, fiscal deficit and whether the budget comprises a move towards pushing reforms.

I
Introduction

HOW would the various proposals of the union budget for 1999-2000 affect industrial growth during that year? This article is addressed largely to this question. As the principal purpose of these proposals is to augment industrial growth, we begin in Section II with the experience of the recent past in this area. Owing to space constraints the article focuses on the main proposals. The wide variety of these proposals suggests that dividing them into the following four groups would be meaningful:

(1) Proposals which relate directly to the industrial sector as a whole;
(2) Those which relate directly to specific sectors of industry;
(3) Those which relate indirectly to the industrial sector as a whole or to specific sub-sectors; and
(4) Those which seek to initiate reviews and discussions for possible follow-up action.

The first three groups of proposals would have impact on industrial production in 1999-2000 and in the later years as well. As for the fourth group, it is unlikely to have any impact in 1999-2000 but may have some relevance for later years. Sections III to VI deal with these proposals.

As a secondary purpose, this article comments on the widely discussed numbers on GDP growth and fiscal deficit emerging from the budget, and on the question of whether this is a reform-pushing budget, Section VII is devoted to these issues. The last section is composed of a summary.

II
Industrial Growth

Table 1 gives the statistics of GDP growth (aggregate and by three sectors) for the five years ended 1998-1999. GDP growth for the first three years was a little under 8 per cent. It slowed down to 5 per cent in 1997-98 but recovered to 5.8 per cent in 1998-99.

Growth in agriculture and allied activities fluctuated widely over these years, ranging from minus 1 per cent in 1997-98 to over 5 per cent in 1994-95 and 1998-99. The rates of growth of industry and services were at their lowest in 1998-99: 4.7 per cent and 6.7 per cent, respectively.

One must read meaning in these statistics with a lot of care. First, the rise in aggregate GDP growth in 1998-99 from the 1997-98 level is wholly due to very high growth of agriculture and allied activities in the former year. Second, the growth data for 1994-95 and 1995-96 are actual, but those for 1996-97, 1997-98 and 1998-99 are respectively provisional, quick and advance estimates and therefore subject eventually to change – which may result in different numbers. Thrid, growth numbers are based on 1993-94 prices, whereas the earlier base year for the purpose of prices was 1980-81. This new series estimates GDP levels about 9 per cent higher on an average than the old series. The higher estimates have arisen principally because the previous series left some existing economic activities out of account and estimated the working population at a lower level. This means that part of the increase in GDP is purely statistical – accounted for by better recording.

Let us now look at the industrial production growth statistics in detail focusing on 1997-98 and 1998-99. Since the 1998-99 statistics are available only for nine months (April-December), the 1997-98 statistics are also presented likewise. The growth rates are based on the index of industrial production (IIP) – 1993-94=100. Table 2 deals with the three principal sectors of the IIP, Table 3 with use-based classification of industries and Table 4 with 17 broad industry groups. These tables are from *Economic Survey, 1998-99* (pp 96, 100 and 100 in that order).

It will be seen from Table 2 that industrial growth (general) slowed down to 3.5 per cent in 1998-99 from 6.7 per cent in 1997-98. Electricity growth was higher in 1998-99 than in 1997-98 (6.6 and 6.5 per cent) but the growth rates for mining/quarrying and manufacturing were lower (–1.1 per cent and 5.5 per cent in the former and 3.7 per cent and 6 9 per cent in the latter).

Coming to the use-based classification of industries, growth in capital goods was higher in 1998-99 than in 1997-98 (9.8 and 6.7 per cent), but lower in the other three sectors by a wide margin (basic goods 1.4 and 6.8 per cent; intermediate goods 4.7 and 9 per cent; and consumer goods 2.8 and 4.6 per cent).

Table 3 on the 17 manufacturing groups shows that growth was higher in 1998-9 than in 1997-98 in seven groups. In th case of the food products and other manu facturing industries groups decline ha turned into positive growth. Each of thes seven groups recorded a high growth rat

On the other hand 10 groups recorde lower growth rates in 1998-99 than i 1997-98. In the wood and wood product group the negative growth of 1997-98 wa aggravated in 1998-99. In four group (cotton textiles, textile products, basi metals, and machinery and equipmen there was a shift from positive growth i 1997-98 to negative growth in 1998-9 In almost every one of the 10 groups th deterioration was sharp.

The weight of these 17 groups in th IIP is 79.4. The seven groups which ex perienced higher growth accounted for total weight of 27.9 and the 10 group which had lower growth for one of 51. (35 per cent and 65 per cent, respectively)

To sum up: these statistics highlight th general slowdown of industrial growth The signals are loud and clear whethe one uses GDP data or any of three sets o IIP data.

III
Taxation

The first group of proposals relates t taxation, direct and indirect (excise an customs duties).

DIRECT TAXES

The two main proposals on direct taxe relate to the imposition of a surcharge c 10 per cent on the tax on individual/Hind undivided family incomes of Rs 60,00 or more and on corporate income tax Thus, the 20 per cent and 30 per cent ta brackets on the former become 22 and 3 per cent, the 35 per cent corporate ta bracket becomes 38.5 per cent. Togethe with other provisions on incentives/con cessions this is expected to yield a ne revenue of Rs 3,100 crore.

This is the first time since the economi reforms were initiated in 1991 that ta

non-durable, and for agricultural inputs produced by the industrial sector: fertilisers, insecticides, pesticides, cement, tractors, power, etc.

Growth of construction activity such as that for residential, commercial and industrial purposes increases the demand for steel, cement, furniture and fixtures, wood and metal products, etc. Growth of infrastructure increases the supply of power, transport, communications, etc, to industry, which in turn transmits growth impulses to the industries which cater to the input needs of infrastructure. Improvements in the capital market and related areas enhance the availability of finance at competitive rates to industry, and make for a more efficient allocation of resources.

Agriculture

The outlay on agriculture has been raised by a substantial 36 per cent. Irrigation charges are proposed to be rationalised, storage and marketing facilities to be improved. Food processing and related industries have been placed in the priority list of industries. Regional rural banks will be strengthened. The corpus of the rural infrastructure development fund is being raised from Rs 3,000 crore to Rs 3,500 crore.

Housing

A number of proposals seek to increase the flow of credit to the housing sector. These relate to changes in the laws for foreclosure and transfer of property, the development of primary and secondary markets for housing, the strengthening of housing finance companies, the easing of bank rules for housing finance, etc. The budget has also proposed a number of incentives/concessions for individual borrowers, housing companies and businesses/industrialists buying/building houses. Special attention is being paid to the provision of shelter to the shelterless in rural areas.

Infrastructure

The budget has proposed a number of incentives/concessions for promoting infrastructure development. The transmission and distribution of power will be eligible for fiscal incentives. The Income Tax Act will be amended to provide for a uniform maximum period of 15 years within which units can avail of the tax concessions. To accelerate industrial growth in the north-eastern region it is proposed to introduce a ten-year tax holiday for all industries located in growth centres, for specified industries and for industrial infrastructure development corporations.

Capital Market and Related Areas

It is here that the budget is most eloquent. It is proposed to go in for strategic disinvestment in public sector undertakings. The budget for revenue from this source in 1999-2000 is Rs 10,000 crore. It is also proposed to make the voluntary retirement schemes of these undertakings more appealing to the workers. It is proposed to amend the Income Tax Act to facilitate mergers/de-mergers. Income in the hands of investors in the Unit Trust of India (UTI) and other mutual funds is exempted from tax. The US-64 scheme of UTI and other mutual-fund schemes with more than 50 per cent investment in equity are exempt from income tax. The long-term capital gains tax for resident Indians is reduced from 20 to 10 per cent. The Gold Deposit Scheme is to be introduced. Income from interest under this scheme is exempt from income tax. Nor is wealth tax or capital gains tax applicable.

A few days after the budget, the Reserve Bank of India reduced the bank rate by a percentage point to 8 per cent, the repo rate to 6 per cent from 8 per cent and the cash reserve ratio (CRR) to 10.5 per cent from 11 per cent. Reductions in prime lending rates and other lending rates in varying measures by banks followed this move.

The stock market upsurge that followed the budget is attributable largely to the budget proposals relating to customs duties, the sunrise industries and the activities reviewed in this section, more particularly in the capital market area. The upsurge was aided by the interest reductions announced by the RBI. But is this upsurge durable? Is it warranted by the likely growth of industry and overall gross domestic product (GDP) in 1999-2000? Our discussions in Sections III to VII suggest only modest industrial growth of 6.7 per cent and a small overall growth of 6 per cent in 1999-2000, compared to growth rates of 4.7 per cent and 5.8 per cent respectively, in 1998-99. The upsurge is thus bound to abate eventually.

Two awkward questions pertaining to the budget proposals dealt with in this section are: if growth does not pick up, would the government be able to raise enough revenue, through taxation in particular to spend on these programmes as budgeted for? For that matter, would the necessary spending be feasible even if growth does pick up? Consider, for example, the recent experience *vis-a-vis* the outlays on agriculture and allied activities. Even though the 1999-2000 Central Plan for agriculture and allied activities has a budget of Rs 3,736 crore, representing a 36 per cent increase over the 1998-99 revised outlay of Rs 2,777 crore, it is less than the budgeted outlay of Rs 3,864 crore for that year; and although the budget outlays on rural development and irrigation and flood control for 1999-2000 are slightly larger than the revised outlays for 1998-99, they are less than the budget outlays for that year.

Next, the problems in housing are many and varied. The existing Urban Land Ceiling Act and non-implementation or tardy implementation of the Rent Control Act, despite clearance by the Supreme

Table 4: Growth Rates of Industrial Production by Broad Group of Manufacturing, 1997-98 – 1998-99 (April-December)

(Per cent)

Two-digit Groups (Weight)	1997-98	1998-99
A Where growth was higher in 1998-99 than in 1997-98		
1 Food products (9.1)	–2.0	2.8
2 Paper and paper products, and printing, publishing and allied industries	5.4	16.0
3 Leather and leather products and fur products (1.1)	2.8	5.0
4 Rubber, plastic, petroleum and coal products (5.7)	4.0	10.6
5 Metal products and parts, except machinery and equipment (2.8)	3.8	22.9
6 Transport equipment and parts (4.0)	3.8	20.9
7 Other manufacturing industries (2.6)	–2.3	10.1
B Where growth was lower in 1998-99 than in 1997-98		
1 Beverages, tobacco and related products (2.4)	17.3	13.8
2 Cotton textiles (5.5)	5.4	–9.9
3 Wool, silk and man-made fibres, textiles (2.3)	21.6	1.6
4 Manufacture of jute and other veg fibre, textile excluding cotton (0.6)	21.3	–5.4
5 Textile products (including wearing apparel) 2.5	8.6	–3.1
6 Wood, wood products, furniture and fixture (2.7)	–3.1	–3.3
7 Basic chemicals and chemical products (excluding products of petroleum (14.0)	14.5	5.5
8 Non-metallic mineral products (4.4)	15.2	1.4
9 Basic metals and alloys industries (7.5)	3.4	–3.0
10 Machinery and equipment other than transport equipment (9.6)	6.9	–3.3

For explanations and source, see text in Section II.

Court, stand as major impediments to increase of the supply. Partly because of this and partly because of the economic slowdown of the recent past, a fairly large number of houses of varying sizes fit for occupation are known to have remained unoccupied for long, especially in big cities. This points to considerable excess capacity. A factor of larger import relates to growth of income and employment: if it is not fast enough further construction activity would be impeded by relatively low demand for residential, commercial, and industrial accommodation.

Third, industry's demand for funds (short-term as well as long-term) has of late been constrained by slack in industry. So banks have generally been flush with funds. Part of the disbursements by banks and financial institutions is known to have been effected to facilitate repayment of old dues. And although industrialists have been lobbying for low interest rates, it is a moot point whether such slight changes as are made off and on can make a material difference to the pace of industrial growth. If industrial growth does not pick up substantially, the increased liquidity would increase the interest costs of banks, leading eventually to lower deposit rates. This may affect the flow of savings adversely. Attention may be drawn to recent data in this context. The savings statistics for 1998-99 and 1999-2000 are not available. Those for 1997-98 shows a decline in relation to the previous two years. Gross domestic savings as a percentage of GDP at current market prices were 24 per cent and 24.4 per cent in 1995-96 and 1996-97, respectively. They declined to 23.1 per cent in 1997-98. The decline embraced the private sector as well as the public sector.

These considerations moderate the hope that the activities discussed in this section would make a major contribution to overall industrial growth. But surely, one can hope for a moderate contribution?

The contribution of industry (mining and quarrying, manufacturing, electricity, gas and water supply, and construction) to GDP went up by 4.7 per cent in 1998-99. The discussion in this section prompts the guess that the proposals discussed with add a little more than 1 percentage point and the discussion of the proposals of the previous two sections the guess that they will add a little less than 1 percentage point in 1999-2000 to the growth rate of 4.7 per cent of the previous year. On the basis of these guesses, GDP growth of industry would be around 6.7 per cent, say, 7 per cent in 1999-2000. We have therefore assumed 7 per cent industrial growth in our discussion on overall GDP growth in Section VII.

VI
Spadework

We now take up the proposals which seek to review and examine the existing procedures and policies with a view to making them simpler and more in tune with changing times and international practices. The government will get some of this work done through formal committees and some in house.

Some initiatives in this regard may be mentioned. A committee will be appointed to review the Monopolies and Restrictive Trade Practices Act, and suggest a law relating to competition. Two committees will be appointed to review the drug policy and identify the support required by the pharmaceutical industry. An expenditure reform commission and a national statistical commission will be constituted.

The Industries (Development and Regulation) Act will be reviewed. In preparation for the next budget, a system of zero-based budgeting will be initiated. Government expenditure on salaries will be pruned by abolishing some posts. A discussion paper on reforms will be prepared.

As a result of these and other initiatives, revenue and fiscal deficit will decline in the future. The revenue and fiscal deficits for 1999-2000 are estimated at 2.7 per cent and 4 per cent, respectively. It is suggested that at the recent rates of reduction the revenue deficit will be eliminated in four years and the fiscal deficit brought down to below 2 per cent.

It will take months or even years for concrete measures that will make impact on growth to emerge. Time will be consumed at various stages: appointment of committees, location of office, recruitment of staff, the submission of reports, consideration of the recommendations by the government, follow-up in the shape of laws, rules and regulations, strengthening of existing agencies, creating new ones where needed, and so on. The impact of the work on the hard numbers of production can be felt only after a fairly long lag, most certainly not in 1999-2000. Secondly, some work has only symbolic value. Thirdly, the government often has second thoughts or develops cold feet during the work period, so that the work is halted or abandoned in midstream. Fourth, some proposals remain on paper for long, ultimately to be buried quietly.

These thoughts are based on hard facts. Consider first, the Industrial Relations Bill, which though it was cleared by the Cabinet seven years ago, has yet to become law. Note next that the abolition of four secretary-level posts announced by the finance minister has only symbolic value in the context of the Pay Commission's recommendation that the number of government employees be reduced by 30 per cent; that the Maharashtra government had initiated zero-based budgeting during the mid seventies but the successor government abandoned it; and that the proposal for the setting up of asset reconstruction companies by banks with a large volume of non-performing assets still exists only on paper.

All in all, even when these reviews and reports culminate in the adoption of concrete measures their impact on production could be felt only after 1999-2000. It must however, be said in fairness, that the proposals discussed in this section provide a basis for the hope of reforms in the medium term.

VII
Larger Concerns

The larger concerns considered here relate to the GDP growth and fiscal deficit numbers of the budget and to the question whether this is a reform-pushing budget.

GDP Growth

The budget has pegged real GDP growth at 7 per cent on the assumptions of market price growth of 12 per cent and inflation of 5 per cent. In terms of goals, the 7 per cent figure makes sense: the Ninth Five-Year Plan (begun 1997-98) has a target of 6.5 per cent; the average growth of the first two years was 5.4 per cent; and reach-

ing the Plan target of 6.5 per cent would therefore call for an average annual growth of slightly more than 7 per cent during the last three years of the Plan period. But considering the experience of 1998-99 and the potential of the 1999-2000 budget proposals, 7 per cent seems to be a tall order.

The rate of GDP growth in 1998-99 was 5.8 per cent, composed of 5.3 per cent for agriculture, 4.7 per cent for industry and 6.7 per cent for services. It would be too much to hope that agriculture growth in 1999-2000 could come close to that figure. After all, the 5.3 per cent growth was on a negative base (minus 1 per cent) in 1997-98. A high growth rate on a low base is understandable, but fast growth on a high base occurs rarely. Also, agricultural growth is subject to wide year-to-year fluctuations: it will be noticed from Table 1 that agricultural growth was high in 1994-95 (5.4 per cent), fell in 1995-96 (0.2 per cent), went up in 1996-97 (9.4 per cent), declined again in 1997-98 (–1 per cent) and rose in 1998-99 (5.3 per cent). Thus, only low growth is to be expected in 1999-2000, and our guess is that it will be about 3 per cent. Industrial growth in 1998-99 was 4.7 per cent. As already noted, we envisage an increase to 7 per cent in 1999-2000. Growth in service was 6.7 per cent in 1998-99. We put it at 7.5 per cent for 1999-2000. This higher rate is warranted, among other things, by the consideration that the government and the organised sector as a whole will have to yield to the demands for increased wages and salaries of their workers, who have been agitating in various ways for some time. Thus, our guesses for agriculture, industry and services are 3, 7 and 7.5 per cent. Given the respective weights in the IIP of 30, 30, 40, we get an overall GDP growth of 6 per cent for 1999-2000. This is admittedly a very rough exercise having only indicative value.

If the actual number turns out to be around 6 per cent, the year 1999-2000 would be more or less on a par with 1998-99. Incidentally, this would necessitate GDP growth at the rate of nearly 8 per cent during last two years of the Plan if the Ninth Plan target of 6.5 per cent is to be hit.

Fiscal Deficit

We may recall that the budget for 1998-99 had estimated the fiscal deficit at 5.6 per cent of GDP. We are now advised that it would be 6.5 per cent. These numbers represent GDP growth reckoned at 1980-81 prices, and they include all small savings schemes.

The budget has estimated the fiscal deficit for 1999-2000 at 4 per cent. This is worked out from GDP growth computed at 1993-94 prices. This new series estimate is about 9 per cent, higher than the old series (1980-81 price) estimate. Secondly, a system of transferring 75 per cent of the net small saving collections to states/union territories from the Public Account will now be introduced. These two changes have had the effect of inflating the denominator (GDP) and deflating a part of the numerator (expenditure). Thus we have a more presentable number of 4 per cent for the 1999-2000 fiscal deficit.

What is the credibility of this number? Past experience suggests that the actual fiscal deficits for almost all the years since 1991-92 have exceeded the budget estimates. It would seem that finance ministers are prone to play some tricks in budget-making: a larger number than warranted for revenue and a smaller number for expenditure in the numerator, and a larger number for GDP in the denominator. This trick has almost always been exposed by the time the year runs out. Going by the past experience, one may guess that the year will end with a fiscal deficit of 5 per cent or thereabouts.

Reforms

On the question of reforms, there is absence of focus in the budget. Some of the proposals roll back reforms. Some push them. Some are reform-neutral. And some others are reform-promising. The increase in customs duties and the surcharge on income tax belong to the first category. The simplification of the procedures for tax compliance and the rationalisation of the indirect tax structure belong to the second category. The excise duty proposals, revenue-neutral in totality, and the retention of subsidies belong to the third category. The reform-promising category is dealt with in Section VI.

On balance, it would seem that this budget does not have much by way of reforms such as would have an impact on GDP growth in 1999-2000. On the other hand, there is a lot of spadework for reforms to be initiated in 1999-2000. As suggested in Section VI, however, the impact of this work may be felt only after 1999-2000. In a word, this is not a reform-pushing budget, but a budget that provides hope for a modicum of reform in the medium term.

VIII
Concluding Remarks

Our discussion led us to conclude that the 1999-2000 budget proposals which related indirectly to the industrial sector as a whole or to specific sub-sectors would have a moderate impact on industrial growth during the year but that those proposals which were directly related to these entities would have a relatively minor impact.

On the basis of 'guesstimates' of the respective impacts of the different sets of proposals, we arrived at the tentative conclusion that GDP growth of industry in 1999-2000 would be 7 per cent.

Out discussion also covered the larger question of GDP growth, fiscal deficit and reforms. Whereas the budget estimates an overall GDP growth in 1999-2000 of 7 per cent, our guesstimate was 6 per cent, only marginally higher than the figure for 1998-99. It led us to the implication that GDP would have to rise at an average rate of 8 per cent during the last two years (2000-01 and 2001-02) of the Ninth Plan.

Whereas the budget estimates the fiscal deficit for 1999-2000 at 4 per cent, our tentative estimate is 5 per cent. We base this estimate on our expectation that GDP growth will fall short of the corresponding budget estimate and, partly as a result of this, the revenue deficit will be larger than estimated in the budget.

Our discussion also led us to the conclusion that this budget does not push reforms but holds out the promise of reforms in the medium term.

The Serbian Hegemony, Ethnic Heterogeneity and Yugoslav Break-Up

Dawa Norbu

Despite serious attempts at rectification, the federative system of Yugoslavia, as was nurtured by its first premier Josip Broz Tito in the post-second world war period, exploded by 1990-91. The tenacity of ethnicity and finely differentiated versions of south Slav nationalism, sharpened by frequent foreign imperial dominations of the region in the past, defeated Tito's design as well as international efforts to save Yugoslavia from Balkanisation. Instead of integrating the eight ethnic groups comprising Yugoslavia into a single nation, certain political and economic dynamics of the federal system tended to unintentionally reinforce ethnic nationalism within each federal unit, especially the larger and more assertive ones. The serbian domination of the state power structure, unwarranted by population size or economic strength, provoked the assertion of non-serbian ethnic identities. If the croats and the slovenes succeeded in achieving a state and an economy of their own within the parameters of a nation, the Bosnian Muslims and the Kosovo Albanians became victims of the serbian repression unleashed against them.

PERHAPS more than the west Slavs, south Slavs constitute one of the most delayed cases of nation-formation in western history. Extreme ethnic heterogeneity characterised the artificial composition of the former. Yugoslavia held together not by commonly accepted 'gevens' of nationhood but by coercive ideology Tito's personality and sheer force when necessary.

The south Slavs' delay in nation-formation may be primarily due to their geo-strategic location within the European international system. They were situated at the crossroads of empires, international politics and war, which disrupted the historical processes, and distorted the politico-cultural patterns of nation-formation in the Balkans. During 395-1453 AD, they were under the Roman empire; during 1389-1918, under the Ottoman empire; between 1815-1918, under the Austro-Hungarian empire. With the collapse of the Austro-Hungarian and Ottoman empires in the course of the first world war, "the allies at Versailles decided on the creation of an independent south Slav state".[1] In other words, it was not so much of the will of the south Slavs but an international political intervention that created the first Yugoslav state in 1918.

A similar pattern of external interventions influenced even the formation of cultural identities of the south Slavs. Yugoslav literally means the 'south Slavs', "series of tribes, that migrated into the Balkan region from the north-east beginning in the seventh century".[2] Through the Middle Ages a number of medieval petty kingdoms evolved in the region with no definite boundaries, which often overlapped each other. Most well known of them were serbian, croatian and Bulgarian kingdoms They remained largely unaffected by world religions until they encountered imperialism which introduced world religions in the area. "Those south Slavs living within the Austro-Hungarian empire (that is, most Slovenes and Croats) tended to adopt Roman Catholicism while those south Slavs living within the Ottoman empire tended to adopt eastern orthodox religion (that is most Serbs) or Islam".[3] Once they adopted world religions, each of the significant south Slavs began to define and differentiate their ethnic identities along essentially cultural lines,[4] as so evident since 1990 in the Balkans.

The south Slavs' geo-strategic location within the international system has the following implications to their delayed nation-formation Frequent external interventions such as the Roman, Austrian, Austro-Hungarian, allies and axis ones, tended to disrupt and distort the historical patterns of national development in the region. My assumption is that once an idea-system is invented in or introduced into any society, it needs few centuries to work out its effect on various vital spheres of social life.[5] The consolidation of political and social structures, the formation of national identity and territorial boundary, etc. requires historical time to root themselves in specific soils and societies. This had, unfortunately, not been the history of south Slavs, whose historical development had been continually interrupted by external interventions from 395 AD to 1918 AD. The result had been ethnic fragmentation, not national consolidation except during Tito's rule.

The other function of historical imperialism in the Balkans had been this; while frequent external interventions tended to deprive the south Slavs of indigenous development, they were enough to intensify ethno-historic memories and sharpen their sense of separate identities. The otherness of foreign imperial dominations tended to sharpen ethnic boundaries and solidify ethnic identities. This was particularly true of the dominant ethnic groups such as Serbs, Croats, Slovenes, as we shall see.

For all 1500 years (395-1918 AD) the dominant historical experience of the south Slavs had been not autochthonous development; it was series of imperialisms which sketched ethnic boundaries of various domains and which shaped the core components of ethnic identities. For example, the Balkans were the dividing line between the eastern and western halves of the Roman empire. On the eastern half of the Roman empire were the "lands that became Serbia centuries later and the western side had the precursor of modern Croatia, Slovenia and Bosnia".[6] Culturally, those south Slavs living within the Austro-Hungarian empire, namely, most Slovenes and Croats, tended to adopt Roman Catholicism, while those under the Ottoman empire (most Serbs) tended to adopt the eastern orthodox religion or Islam.[7]

If the cultural and political fallout of imperialism largely defined most of the identities and boundaries in the Balkans, ethnic struggles against such imperialisms tended to crystallise and solidify their identities This was particularly true of Serbs who dominated the south Slav's chequered history up to the modern period. The Serbian hegemony has been one of the main causes of south Slav's brief periods of federal unity as well as of the

Yugoslav disintegration in 1990 and the current ethnic conflicts in the region.

The serbian hegemony owed itself not to economic or demographic reasons.[8] In the absence of material evidence, we are left to speculate along historical lines with sociological imagination: assertive identity, ethnic cohesion, organisational ability and general resourcefulness accumulated over centuries in the heart of the Balkans that might have accounted for the Serbian hegemony or leadership. Neither their population size (38 per cent) nor their economic strength supported their claim to hegemony. It was based on social-cultural factors.

Of all the ethnic groups in the Balkans, serbs were the first to offer an organised and sustained resistance against the Turks. In particular the serbian uprising against the Turkish overlords in 1804 and 1815 "created the framework for the growth of the Serbian state".[9] Serbia continued to expand southward into Kosovo and Mecedonia in three waves (1831-33, 1878 and 1912-13), thereby creating some basis for serbian, if not south slavic, unification.

The opportunity came after first world war when the allies at Versailles decided to create an independent south Slav state. It was called the kingdom of the Serbs, Croats and Slovenes. and held together rather precariously until 1929 by the serbian leadership. As its title suggested, the kingdom recognised only three ethnic groups: Mecedonians, Bosnians, Montenegros and others were not recognised as separate ethnic groups. Yet, this motley of ethnic groups "was built on the theory of one-nation state comprising three south Slavic tribes"[10] – Serbs, Croats and Slovenes. Actually, Yugoslavia between the world wars was really a 'Greater Serbia'.[11]

After the failure of the first attempt at south Slav unification through a multi-party parliamentary democracy (1918-28), the kingdom of Yugoslavia was established in 1929; it lasted until 1941. Again a Serbian king ruled "a unitary state in which the administrative sub-units were given geographic rather than ethnic names. In this and other ways, the regime attempted to foster a 'Yugoslav nationality' in place of the ethnic identities that had so much undermined the previous constitutional order".[12] In the process, the core institutions of the pre-war Serbian state such as the monarchy, army, bureaucracy, church were extended to and imposed upon Croatia. Slovenia, Bosnia, Herzegovina, Kosovo and Macedonia.

The Serbian historical tendency to dominate the Balkan politics and their implicit claim to south Slavic leadership has been challenged by perhaps the next most organised and assertive ethnic group, Croats. To that extent the Yugoslav history in the 20th century has been characterised by Serbo-Croatian rivalry and conflict, evident to this day in Bosnia.

However, some Croat politicians and intelligentsia advocated, pan-south, Slavic ideas in the 1830s. But, when such ideals took the shape of Serbian hegemony, most of them became disillusioned and increasingly turned to Croat nationalism. The Croat nationalists of the interwar period dreamt of the resurrection of a 'Greater Croatia' which would incorporate Croatia proper, most of Bosnia-Herzegovina and Dalmatia.[13]

In 1934, Serbian king Alexander and his foreign minister were assassinated in France by Macedonian and Croat nationalists. Earlier in 1928 the Croatian leader, Stephen Radic and other activists were assassinated by a pan-Serb Montenegrin. After the proclamation of royal dictatorship in 1929, extreme Croatian nationalists went underground and founded *Ustasa*, a fascist group that would co-operate with Hitler for the sake of Croatia's independence. In 1941 when the nazis invaded Yugoslavia, they installed Nedic in Serbia and declared Croatia independent under the *Ustasas*. The *Ustasas* began to exterminate the Serbs from Croatia, by killing one-third, expelling one-third and forcefully converting the rest to Catholicism.[14] Serb insurgents organised themselves as 'Chetniks' (led by Draza Mihailovic) and started attacks against the Croats and Muslims.

Such violent incidents made a deep imprint upon the Serbs. "The memories of the second world war have also generated animosity between the Serbs and the Croats. Due to the *Ustasa* atrocities...all the Croats are painted as fascists".[15] But Franjo Tudjman; the Croatian president in 1990 defended the fascist state of *Ustasas* as a "legitimate manifestation of the historical aspirations of the Croatian people".[16]

In order to understand objectively Tito's Yugoslav federation, we should review it in the perspective of previous attempts at south Slav unification. The first lasted 10 years; it was the only attempt to establish democracy in the Balkans, during which three national elections were held, and 17 cabinets changed hands. Ethnically-based party politics and the serbian dominance wrecked the constitutional order. The second attempt lasted for 11 years. As a reactive response to the previous constitutional anarchy and crisis, it was a serbian royal dictatorship. The second world war, which included the nazi invasion of Yugoslavia, split up the kingdom of Yugoslavia. In 1945-46, Yugoslavia was recreated, this time as a Leninist federal republic. It was led by Josip Broz Tito and lasted for 45 years, the longest period of unification in the history of south Slavs.

Seen from such a perspective, we should ask not only why Tito's federation failed in 1990 but also why it lasted the longest in the Balkans where Balkanisation is endemic. The role of human agency in the historical process is usually slighted in social science discourse. But the establishment and existence of Yugoslavia for more than four decades cannot be acutely understood without reference to Tito's charismatic qualities and his organisational ability. A charismatic leader emerges when a right man meets the right moment of crisis which he tackles with dramatic success. Tito did just that. Under his able leadership, "the communists on the whole proved to be patriotic, well-organised, and politically and militarily more successful, in the liberation struggle and in the civil war than opponents".[17] Out of such heroic deeds, a powerful national myth was born: "that Tito (a Croat) had led the multi-ethnic partisans as their numbers and units eventually spread throughout Yugoslavia and as they achieved liberation from the occupying forces, thus proving that the south Slavs could collaborate successfully as Yugoslavs".[18]

Tito's international stature was enhanced by two factors. As he challenged the Soviet monolithic power and fought hard for Yugoslavia's right to follow its own road to socialism, he won western encouragement and acclaim during the height of the cold war. Secondly, his leadership in the non-aligned movement generated much third world admiration for him personally and popular support for his country. Thus, a Yugoslav defector in the late sixties noted that "It was Tito's power which radiated through and permeated Yugoslav life in its entirety".[19] But as Tito's charisma began to wane and as ethnic problems intensified by early seventies, he increasingly resorted to coercive means. Progressively his dream of Yugoslav nationality turned into a Balkan nightmare.

Although Tito appeared during his lifetime as a deviant Leninist, yet he shared several fundamental features of Leninism especially his belief in the 'socialist federation' as a final solution to the nationality question. In this regard he envisaged the Leninist conception of federation as an instrument to transform various ethnic groups into a single Yugoslav nation. Since

such utopian transformation would take a long time, he envisaged a transitional federation based on 'ethnic equality'. But his transitional management became an existential history of unequals which wrecked his system. Tito was more explicit about his ultimate Yugoslav goal when he said, "I would like to live to see the day when Yugoslavia would become amalgamated into a firm community, when she would no longer be a formal community but a community of a single Yugoslav nation".[20] In retrospect, it appears that he was probably the first and the last believing Yugoslav. His utopia, partly inspired by pan-south Slav nationalism and partly by the Leninist vision, was overtaken by the sheer tenacity of ethnicity.

Tito's socialist federation was largely based on the Soviet quasi-federal system, with minor modifications. Sensitive to the ethnic divisions within the Balkans, he established a federation of six republics – Slovenia, Croatia, Serbia, Bosnia-Herzegovina, Montenegro and Macedonia. Each of them was granted regional autonomy within a single state which retained foreign affairs, defence and some joint economic concerns under its sovereign jurisdiction But this federal structure ensured neither inter-ethnic coexistence nor prepared the various ethnic groups for the 'final' amalgamation into a single Yugoslav nation. Each ethnic group travelled invisibly but surely more or less along the historical grooves dug deep for centuries by separate ethnicity, becoming ever conscious of its ethnic identity as material stakes increased. The tragedy was that, like the Soviets and Czechoslovaks, the Yugoslav communists believed that their socialist "revolution resolved the National Question in Yugoslavia once and for all".[21] Such an idealistic belief in Marxian utopia blinded the communists in Yugoslavia (like elsewhere) to the social reality of ethnicity and finely differentiated versions of neo-nationalism. The fact was, as Gary Bertsch observed in 1977, "Yugoslavia is a country with six republics, five peoples, four languages, three religions, two alphabets, and one Yugoslav – Tito" [22]

What then went wrong with the Yugoslav federation? It was not due to a lack of good intentions and partial popular support especially during the initial stages. Nor was there a lack of effort to correct the system in the 1970s. The war generated waves of pan-south Slav feelings and Tito remained till the end a convinced Yugoslav, even though he was a Croat. The 1946 Constitution did not exaggerate much when it described the new federation as "a community of peoples equal in rights, who on the basis of self-determination, including the right of secession, have expressed their will to live together in a federative state".[23] As for corrective changes in the federal system, Tito and his associates proved to be more responsive than the Soviet counterparts. New constitutions and constitutional laws were made in 1946, 1953, 1963 and 1974, borrowing heavily from the Swiss and American constitutions.[24] In 1974 Tito gave up his life-term presidency, and was replaced by an eight-person collective presidency, with each of the eight representing one of the eight federal units. The federal assembly was also composed of delegates from each of the eight units – six republics and two autonomous regions.

Despite such serious attempts at rectification, the federative system exploded by 1990-91. The reasons are, as current history indicates, fundamentally due to the tenacity of ethnicity and finely differentiated versions of south-Slav nationalism. The irony was that, instead of integrating the eight ethnic groups into a single Yugoslav nation, certain political and economic dynamics of the federal system tended to unintentionally reinforce ethnicity and ethnic nationalism within each federal unit, especially the larger and more assertive units. I refer to the Serbian domination of the state power structure at the federal level, unwarranted by population size or economic strength, which provoked the assertion of non-Serbian ethnic identities As the Serbians continued to dominate, if not monopolised, the federal power structure, each non-Serbian republic and autonomous region was compelled to fend for itself, using whatever resources granted to the republics and regions. In particular the 1974 Constitution granted each republic maximum autonomy in solving local problems and developing strengths. "The result was that the republics began to develop independent economies."[25] As each republic pursued independent economic policy, it indirectly encouraged an ethnically-based autonomous development in almost all the 'federal' units This meant each republic and province developed its own separate, if not nationalistic, economy, institutions and local elites who began to advocate ethnic nationalism

Yet while the Constitution recognised the autonomy of each nation (republic) except foreign affairs and defence, the expression of nationalism was severely and squarely prohibited as a matter of ideology and policy. For several decades the public articulation of ethnic nationalism was suppressed. So were "numerous other manifestations of national feelings and identity, such as the use of national names for institutions, some songs, writings by some famous authors, visual symbols, national flags, etc".[26] Thus, by 1981 only 5 per cent of the 22.4 million people considered themselves as Yugoslavs.[27] Probably, from mid-forties to late-sixties Yugoslavia was held together by a combination of Tito's charisma and partisan solidarity; after that, by 'federal' coercion and serbian supremacy.

The Serbian hegemony among south Slavs has been, as we have observed earlier, a historical tendency. This hegemony has two functions: in times of crisis it provided leadership but in times of peace it generated anti-serbian resentment. Even during the inter-war period, the Serbian dominance in the state power structure was clear and well documented. Despite the Croatian reputation for military prowess, on the eve of first world war, out of 165 Yugolsav generals, 161 were serbs while Croats and Slovenes had two each. Similarly, the serbs dominated the state apparatus: office of the Premier, 13 out of 13; royal court, 30 out of 31; ministry of interior, 113 out of 127; ministry of foreign affairs, 180 out of 219; ministry of education, 150 out of 156; ministry of justice, 116 out of 137; transport ministry, 15 out of 26; State Mortgage Bank, 196 out of 200.[28]

It is interesting to note that even Tito, a Croat, and his interventionist ideology premised upon ethnic equality could not check the Serbian historical tendency for hegemony. To be sure, the Serbian representation in Tito's Yugoslav state power structure was less than that of the inter-war period but still in comparison to their total population, the Serbs were rather over-represented. The Serbs, though forming only 39.7 per cent of the total Yugoslav population, held 66.6 per cent of all positions of power in the federal organs of government. [29] Although the Communist Party (the League of Communists of Yugoslavia, LCY) may be considered a model of equitable ethnic representation, the Serbs are again clearly over-represented. They constituted 49.4 per cent of the total LCY membership [30] The trend was similar in the republics too. In 1968 Serbs formed 26 per cent of the Croatian Communist Party when they formed only 15 per cent of the population in Croatia. In 1971 S[illegible] constituted 46 per cent of all generals and 60.5 per cent of all officers. In 1991 Census, the Serbs who formed 39.7 per cent of the population, provided 60 per cent of the officers.

In short the Serbian hegemony was established "in the entire federal party, police and military apparatus, in the civil service, diplomacy, central banking". Their political hegemony in the crucial sectors of the state enabled the serbs "getting expensive systems of subsidies and veteran positions, allocating federal appropriations and central bank credits, securing lucrative contracts with foreign state-owned enterprises, obtaining foreign aid, and better paid positions abroad".[31]

Federalism could be misleading. It does not mean the absence of a centralised state. Even if we agree that the state exists even in a federal system monopolising core areas of national power such as defence, foreign offices, macro-economy, it does not mean, as the Yugoslav case clearly illustrates, that there is a proportionate representation of all ethnic groups of the federation in the state apparatus. The state even in a federal system is progressively ethnicised as the Yugoslav and other cases confirm.

Such privileges and power that the serbs enjoyed and abused were justified by Belgrade in terms of Serbian state nationalism: south Slavic solidarity and serious threats to Yugoslavia's very existence. The fact is that it was not external intervention this time that blew up Yugolsavia, it was an internally and consistently generated political contradiction that exploded Tito's federal system, despite his best efforts. I refer to the Serbian-dominated state power structure at Belgrade and its lack of congruence with the multi-ethnic character of the Yugolsav social system. This contradiction generated ethnic nationalisms that opposed Serbian domination. In the ultimate analysis (if there is such thing in the Balkan case), it is the tenacity and resilience of ethnicity as a 'volksgeist' (not the dialectics of history) that defied Tito's rational design and opposed Serbian domination.

In 1990 Yugoslavia could possibly still have survived "if it were quickly reorganised into an association of sovereign republics".[32] In mid-1990 this was a Slovenian proposal; later, a joint Slovenian-Croatian proposal; and later still, a separate Croatian draft. Much earlier they tried for substantive changes but the Serbian-dominated Communist Party prevented any serious political reforms. Till the end the Serbian elites and ordinary Serbs "never understood and intimately accepted the principle of equality" among all the nations and nationalities in Yugoslavia.[33] Instead, the grievances of serbs living outside Serbia were highlighted by the Serbian mass media to justify territorial expansion and genocide against non-Serbs" in the Balkans.

Such actions have had a vicious demonstration effect on other ethnic groups who would react and retaliate in a similar manner and measure as so evident today in Bosnia. For the fact is that almost all the ethnic groups are so scattered and mixed throughout the former Yugoslavia that even each of the former republics could claim at the most a majority but not absolute majority within its ethno-homeland. For example, the serb population in the Republic of Serbia was as follows: Serbia proper, 85 per cent; the Autonomous province of Vojvodina, 54 per cent and 19 per cent Hungarians; the autonomous province of Kosovo, 77 per cent Albanians and 13 per cent Serbs. The only republic with no substantial minority ethnic group was Slovenia with 91 per cent Slovenes. Otherwise Croatia had 12 per cent Serb minority; Montenegro, 13 per cent Muslims and 6 per cent Albanians; Macedonia, 20 per cent Albanians and 5 per cent Turks. Bosnia and Herzegovina had by 1981 more mixed population than Vojvodina and Kosovo: 40 per cent Muslims, 32 per cent Serbs and 18 per cent croats. Hence, the most bloody ethnic conflict is going on in Bosnia.

Not only in Bosnia but throughout the Balkans each of the significant ethnic groups began to assert its ethnic identity, mobilise its ethnic constituency through nationalistic appeals and finally fought for its independence.

Slovenes perceive themseleves to be central Europeans, not Balkans. They had a million years of culture contact with and influence from Italian and German speaking neighbours. Slovenes are Roman Catholics, and have their own language which became the core component of Slovene identity. They are the most homogeneous nation in the Balkans. Being relatively richer than other regions, little Slovenia used to make the biggest contribution to the federal budget in Yugoslavia.[34] It is then little wonder that Slovenia was the first to declare its independence on July 2, 1990. In plebiscite on sovereignty and independence, 88.5 per cent of slovenes favoured independence.

Croats are also Roman Catholics, and their line of cultural differentiation has been language-based one. In 1967 they fought for the recognition of Croatian with Latin alphabets as distinct from Serbo-Croatian. Their historical memories of independence during the second world war despite fascist associations, are strong among the Croats. The Croat coat-of-arms and flag are similar to those used by the fascist supported independent state of Croatia in the 1940s. In 1971 Tito had to purge the Croatian nationalists. However, by April 1990 their party led by Franjo Tudjman came to power, winning two-thirds of the Croatian assembly seats. The Croatian nationalist activities perturbed the Serbs in Croatia and Serbia, especially when dual script road signs were torn down even in Serbian dominated areas. Croatian Serbs were disarmed and asked to sign loyalty oaths to Croatia. The Serbo-Croatian conflict began in early 1990.

We have earlier traced the dominant role played by the serbs in Balkan history and politics. Their sense of nationalism is rooted in the historic tradition of Serbia as "the torch bearer of Slavism against the Turks".[35] The idea of Yugoslavia as such had been essentially Serbian, based upon linguistic and cultural affinities between Serbs and Montenegrins including those Serb speaking groups in Bosnia and Herzegovina. Hence, the Serbs resented the 'loss' of Kosovo and Vojvodina, carved out of Serbia as autonomous provinces by the 1974 Constitution. Serbs attach deep emotive significance to Kosovo and Vojvodina which constitutes the historical dimension of their national identity.

"The battle of Kosovo was never finished. It is as if the Serbian people have waged only one battle – by widening the Kosovo charnel house, by aiding wailing upon wailing, by counting new martyrs to the martyrs of Kosovo... Kosovo is the costliest Serbian word. It was paid by the blood of the whole people... Here the conscience of the Serb people was split into the period before and after Kosovo. Kosovo is the Serbianised story of the flood – the Serbian New Testament."[36]

It is in this sense that the early manifestations of ethnic nationalism and conflict in Yugoslavia as such may be traced to the Kosovo street protests of 1981. In that year the Albanian demonstrations shook Kosovo. In reaction, Serbs began a campaign against Tito's constitution of 1974 which sanctioned the "dismemberment" of Serbia. Serbian intellectuals in 1986 accused Tito of pursuing a consistent policy of discrimination against the Serbs and Serbia.[37] In 1986 Slobodan Milosovic became the communist head of Serbia and soon gained reputation as the protector of the Serbs in Kosovo. As a staunch Serbian nationalist, Milosovic may be considered one of the causes of the bloody ethnic conflict in Yugoslavia. He despatched the Yugoslav army to Slovenia when the latter declared its independence on July 25, 1991. After the army's with-

drawal from Slovenia, the war in Croatia began. A full-scale serbian campaign of terror against non-Serbian social groups (deportation, genocide and ethnic cleansing) – began.

Traditionally Kosovo has been the ethnohomeland of Albanians. Most Albanians are Muslims and their language is of the Indo-European origin. They deeply resented Serbian hegemony both in Kosovo and Belgrade; it is one of the dynamics of Albanian Islamic nationalism. Following Tito's death in 1981, the Albanians revolted; their slogan was "We are Albanians not Yugoslavs!" During the period 1981-85, some 3,344 Albanians were imprisoned for nationalist activities.[38] After the Albanian riot of 1990, Serbian repression and Albanian resentment intensified almost in equal proportion. Between 1988 and 1990 some 5,000 Albanian officers in the Kosovo administration were purged.[39] In July 1990 Milosovic dismissed Kosovo's parliament, banned most of the Albanian language mass media. These repressive measures compelled the Albanian Muslims to declare their independence in September 1990.

The serbs also have had close cultural ties with Vojvodina. During the Turkish occupation of Serbia and the second world war, Serb refugees in Vojvodina kept their national culture alive. Moreover, Serbs constituted 54 per cent of the Vojvodinan population with 19 per cent ethnic Hungarians. The Hungarian minority often argued that their culture and media were serbianised. Moreover, Milosovic's Serbian ethnocentricity and pro-Serbian policy led to the further increased use of Serbian language and alphabet in Vojvodina, which naturally caused apprehensions in the minds of Hungarians, Slovaks and others. The Hungarians formed the Democratic Union of Hungarians in Vojvodina, which fights for their ethnic interests.

Macedonians speak a language between Serbian and Bulgarian. They are orthodox Christians. Tito recognised their nationhood based on distinct language, history and culture. He even established a separate Macedonian Orthodox Church. But Bulgaria perceives the south Slav inhabitants of Macedonia as Bulgarians. The recent resurgence of Serbian nationalism led to the founding of pro-Bulgarian Democratic Party of Macedonian National Unity similar to Internal Macedonian Revolutionary Organisation which during the inter-war period, agitated for Macedonia's union with Bulgaria. In 1992 the Macedonians voted in a plebiscite (September 1991) for sovereignty.

What is happening in Bosnia-Herzegovina reflects the enlarged picture of ethnic conflicts that have engulfed the Balkans since 1990. It is "a country where the three worlds meet... Islam, Orthodoxy and Catholicism, the east, Byzance (Byzantine) and Europe"[40] lived and now conflict with each other. The Muslims were recognised as a nation in 1968, after 25 years of debate and hesitation. As inter-ethnic tensions built up and ethnic conflicts began, the Muslims tended to increasingly emphasise their religion which they believe constitutes the core of their ethnic identity.[41] In November 1990 free elections, the Muslim Party of Democratic Action won 86 seats in the 240 seat National Assembly; the Serbian Democratic Party, 72 seats; and the Croatian Democratic Party, 44 seats. In March 1992 a referendum was held on the question: "Are you in favour of a sovereign and independent Bosnia-Herzegovina, a state of equal citizens and nations of Muslims, Serbs, Croats and others who live in it?[42] Although the Serbs boycotted the referendum, 99.4 per cent of the participants voted in favour. But the serbian army almost immediately intervened, deploying nearly 95,000 troops. By 1993 the serb forces have established control over 70 per cent and the Croats over 15 per cent of the Bosnian territory. With no co-ethnicists in the vicinity, the Bosnian Muslims are the clear losers in this multi-pronged ethnic struggle for identity and territory in the Balkans.

The Balkans are more of a breeding ground for ethnic heterogeneity than south Slavic unity. More than the west or east Slavs, the south Slavs are particularly an instructive case for the study of ethnicity within a context of multiple identities. Like other Slavs in west and east, south slavs *seem* to share several commonalities such as race, culture, language. However, a deeper analysis reveals that such commonalities fade into the background; what is foregrounded are specific ethno-cultures, ethno-histories, ethno-languages which finely differentiate, both subjectively and objectively, each of the sex ethnic groups in 'Yugoslavia'. It is a typical case of ethnic formation and assertion: the centrality of marginalities. Basic commonalities which might unite are ignored; minor differences which form the substratum of ethnic identity are emphasised such as language, culture and history. Thus, the Bosnian Muslims tend to emphasise religion as the core of their ethnic identity; the slovenes croats and Macedonians, their languages; the serbs, their history. Given a number of ethnic variables, one that most sharply differentiates ethnic self from generalised others around it, is most emphasised and projected as the defining characteristic of the ethnic group in question.

If one generalisation is possible about south Slavic identities, it may be this: As the Serbo-Croatian rivalry indicates the Serbian and Croatian identities are most differentiated from each other on the basis of religion and language. Others may be considered subcategories of these two basic categories of ethnic differentiation among the south Slavs except the Muslims. Croats and Slovenes in the north are largely Roman Catholics and both use Roman alphabets. However, their speech and writing system slightly differ. Ethnicity makes even dialects into independent languages. On the whole, the Serbs, Macedonians, Montenegrins, Bosnians, and other minorities differ fundamentally from Croats and Slovenes. The Serbs, Macedonians and Montenegrins follow the Eastern Orthodox Christianity, while the Bosnians are mostly Muslims. Most of the southern ethnic groups use their Cyrillic characters except the Macedonians.

Even these two basic categories, based on the north-south divide, do not exhaust the process of ethnic differentiation. When ethnicity is politicised and ethnic identities are asserted, what determines are the specific *local* or ethnic versions of religion, language and history which constitute or reconstitute differentiated ethnic identities. In the sense ethno-culture, ethno-language and ethno-history represent the specific and particular ethnic experiences of religion, language and history over a long period of time within an ethno-homeland – by a particular ethnic group. In other words, what is important is the *localisation* of religion, language and history which sum up significant collective or social experiences of a particular ethnic group and therefore, constitute its own ethnic identity. For examples, the Serbs follow the eastern (Russian) orthodox religion but it is not the Russian Orthodox Church that they accept; they have the Serbian Orthodox Church. It may be assumed that since the Montenegrins are religiously and linguistically closely related to the Serbs, they might have accepted the Serbian Orthodox Church. "In fact, the Montenegrins are opposed to the renewed activities of the Serbian Orthodox Church and recently there have been calls for the re-establishment of the Montenegrin Orthodox Church."[43]

Therefore, the fundamental feature of ethnic nationalism is the painful and pride-building process of reclaiming social

selfhood in the vital sectors of public life. And ethnic conflict, which engulfed the Balkans, is an armed struggle for identity and territory in ethnically mixed areas. It is sustained by co-ethnicists dominant in compact territories. This is what makes it truly ethnic conflict.

In the end we cannot overemphasise the fact it was the veracity and tenacity of ethnicity, the progressive assertion of ethnic identities and the societal articulation of ethnic nationalisms that defeated Tito's rational design and international efforts to save Yugoslavia from Balkanisation. Tito's various efforts to reform the Balkanising federation in the 1970s have already been enumerated earlier.

In conclusion we mention the various international attempts to keep the 'rational design' intact. The European Union and the US exerted pressures and made threats of withholding new credits and non-recognition of secessionist republics. The former in particular made promises of fresh loans and associate membership if it (Yugoslavia) stopped balkanising. Gorbachev's and later Russian attempts at mediation all failed.

Even economic failure during the last 45 years can be only the second cause,[44] not the first which is clearly ethnicity. It appears that rational designs in the Balkans had almost always thwarted by non-rational factors such as ethnicity and ethnic nationalism. To that extent the history of south Slavs, especially the modern period, is not a history of regional integration, no matter how "rational"; it is a progressive unfolding of ethnic identities that demanded that the state and economy be established within the parameters of a nation (or an ethnic group). In Yugoslavia Leninism faced perhaps the severest test of its transnational credentials and rational designs.

Notes

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1 Harriet Gitchley, 'The Failure of Federalism in Yugoslavia', *International Journal*, XLVIII:3 (Summer 1993), p 436.
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3 Ibid, p 436.
4 For a discussion of the sociological significance of world religions to national development and national identities, see my book *Culture and the Politics of Third World Nationalism*, Routledge, London/New York, 1992, pp 65-87.
5 Ibid, pp 16-17.
6 Kamal Sadiq, 'Ethnicity in a Multi-ethnic State: A Study of the Former Yugoslavia and India', (unpublished MPhil dissertation), Jawaharlal Nehru University, New Delhi, 1993, p 63.
7 Critchley, op cit, p 436.
8 Economically, Slovenia and Croatia have always been more developed than any other part of Yugoslavia including Serbia. The total serbian population in Yugoslavia constituted only about 38.3 per cent of the total Yugoslav population. Therefore, Serbian hegemony is not warranted by economic and demographic factors.
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10 Anton Bebler, 'Yugoslav Variety of Communist Federalism and Her Demise', *Communist and Post-Communist Studies*, 26, 1, March 1993, p 72.
11 Sadiq, op cit, p 65.
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25 Sadiq, op cit, p 93.
26 Bebler, op cit, p 78.
27 Sadiq, op cit, pp 87-88.
28 Joseph Rothschild, *East Central-Europe Between the Two World Wars*, University of Washington Press, Seattle, 1974, pp 278-79.
29 Bertsch, op cit, p 97.
30 Sadiq, op cit, p 98
31 Bebler, op cit, p 75.
32 Ibid, p 82.
33 Ibid, p 82.
34 In 1989, Slovenia contributed 696 billion dinars for the less developed regions of Yugoslavia.
35 Sadiq, op cit, p 112.
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37 Sadiq, op cit, p 114.
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39 Lendvai, op cit, p 258.
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41 Zachary T Irwin, 'The Islamic Revival and the Muslims of Bosnia-Herzegovina', *East European Quarterly*, XVII:4, January 1984, pp 437-54.
42 Branka Magas, 'The Destruction of Bosnia Herzegovina', *New Left Review*, No 196, November 1992, p 109.
43 Ibid, p 122
44 Egon Zigmond, 'Inflation and Price Stabilisation Policy in Yugoslavia', *Communist Economies and Economic Transformation*, Vol 3, No 3, p 269.

Economic Development and Political Democracy

Dhanmanjiri Sathe

DEEPAK NAYYAR in his article 'Economic Development and Political Democracy: Economics and Politics in Independent India' (*EPW*, December 5-11, 1998) has traced the interactions between economics and politics in independent India. With regard to the current context he states that "the need for conflict resolution is greater than ever before. But the task has become more difficult". In this note we have made an attempt to identify and discuss some of the issues which are likely to be important in a liberalising India, or for that matter any developing and liberalising economy.

Most of the developing economies were following a planned path of growth and over a period of time most of them have moved towards a more market-oriented system. This pattern can be seen in economies like South Korea, China, Mexico, Brazil, Pakistan and India, along with erstwhile USSR and eastern Europe. In India, as in many of the developing economies, three issues seem to be emerging in the liberalising period.

The first is that of the incentive structure and the resultant efficiency. Though efficiency has always been perceived as important, its single-minded pursuit has become an important part of the current agenda.

The planning process in India did not fully deliver what it was supposed to deliver. On the one hand, it did not raise the size of the cake available in enough measure; on the other, the distribution of the cake was also not egalitarian (more on it later). While the Second and Third Plan showed high rates of growth, after that the economy started doing badly. The decade of the seventies was a period when the state did not have enough to invest nor was the private sector allowed to expand. The benefits from the planning process, which were substantial till 1970, started petering out after that. This situation came about largely because the public sector was not giving adequate returns, that is, the efficiency criterion was totally ignored. This phase continued till the mid-eighties when Rajiv Gandhi became prime minister. Though it was not accepted in explicit terms that the time to make an ideological shift had come, the process of liberalisation was under way in a surreptitious manner after Rajiv Gandhi came to power. This period can be called that of 'economic adventurism', when external and internal public spending went out of control. The high level of public spending was financed out of external and internal borrowing. This was the way out which the government found, because after all for how long can you tax the people heavily, get moderate rates of growth adn totally ignore the productivity or efficiency criterion? The inevitable consequence of excess spending was the crisis of 1991, which made the need for external and internal liberalisation very urgent. The crisis made it easy for the government to 'sell' liberalisation to its people, and the process of liberalisation was accepted as a necessity – something which had to be done for the sheer survival of the economy.

Liberalisation means that the 'market' gets a central place and that the prices are right. That is, the relative scarcities in the economy must be reflected in the prices and not to be suppressed by governmental control. In the same vein, the crux of the market economy is that economic agents who are more efficient should get higher rewards. Higher rewards, in turn, act as an incentive for the economic agents to produce more and to become more efficient. Thus there is clearly a positive relationship between the incentive structure and the generation of wealth in the economy. Acceptance of this has important implications for the Indian economy, polity and the society.

Indian society has been and continues to be a hierarchical and caste conscious society. The 50 years of democracy have not made any dent in this fundamental nature of the society. Thus the new work ethos being sought to be introduced in the still largely feudal and semi-feudal society will have important social implications. For example, the concept of efficiency and the social stratification on the basis of caste are bound to clash. The acceptance of the primacy of the individual as against the tribe or the caste will lead to intra-caste or tribe anxieties. A proper incentive structure which is so very essential for the market-mechanism to operate properly could be socially disruptive. For example, some sections in the Indian economy, like the software professionals, management graduates working for the MNCs, etc, have been getting remuneration which is exorbitant and totally out of line with that being earned in the rest of the sections. This misalignment, which is the crux of the market mechanism, would lead to differential patterns of consumption in society and is bound to have a negative impact on the rest of the society.

The second issue is that of social sector development and social security. As an economy moves towards a more liberalised, competitive regime, immediately the question of those who may not survive the competition becomes pertinent. It is here that political democracy can and should play a crucial role. In India, in the fifties, the fact that the country had a democracy did not lead to any redistribution of assets, like land. This was largely a result of the nature of the Congress Party, which put democracy firmly in place but was reluctant to make any dent in the vested interests structure. This stands in contrast with the experiences of China, South Korea and Taiwan who, for different reasons, had redistributed landholdings before the commencement of the developmental process. This has meant that when they started with the process of liberalisation later on, their asset distribution was much more egalitarian than what it is now in India. And here we must also include the distribution of education and health services, i e, investment in the human resources which allows people to compete in a far better way, which again is much better in these economies as compared to India.

In India, what we see is that a highly skewed income distribution was not rectified by the planning process and the movement towards the market is very likely to worsen the situation. The market mechanism does not take care of everybody even in the developed economies. While the point is well taken that competition needs to be encouraged in economies like India, the point of dispute is what happens to the poor. This is the difference between different political parties in India, because either explicitly or implicitly they have all accepted the process of liberalistion.

In the pre-liberalisation period, especially since the early seventies, the safety net for the poor consisted of the various poverty alleviation programmes,

A tremendous level of co-option of the 'left behind' was achieved at a political level via these 'schemes'. Right now the safety net for the poor and the unorganised in India has become very weak. The poor have to fend for themselves come what may. In reality, they are at the mercy of nature, the market and the government. In this kind of a situation, those sectors of the economy where labour is surplus, unskilled and uneducated will not be able to face competition. This does not mean that they are incapable of efficiency. Rather, it means that they need some kind of positive discrimination at an economic level before they can face competition. People who are in a hurry to liberalise are in effect asking certain sections of the population to make sacrifices for the others. Besides the moral question of why must one section of the population sacrifice for other sections, at the practical level it may not even work. Historically, many short-term sacrifices have been forced out of people for the sake of a glorious future. In most of these cases, the glorious future never did come; in fact economic conditions always worsened. Politically, it is essential that stability in the economy is maintained so that the liberalisation process may continue. This means that the basic needs of the left behind, the have-nots are satisfied. If the entire society wants the process of 'creative destruction' to continue unabated, the losers will have to be compensated.

But the real problem here is that the Indian government is bankrupt. The more it tries to provide for the poor, the more it would be undermining the move towards the market, i e, efficiency. The left behind sections will have to put up political fights to get more and more of the available cake. Here the role of political and non-political activist organisations becomes crucial. It is not going to be an easy task for these organisations to extract more from the government. The ruling party, on the other hand, since it would like to be re-elected, will have to increase 'efficiency' in the use of funds allocated for social sector development. In short, up till now governments have been saying what they have been doing for the poor, how much of resources have been allocated for this purpose; now they will have to see that the resources actually reach the poor. Thus, how much of the cake the poor actually get will depend, to a large extent, on how vocal and organised they themselves get and what kind of pressure they exert on the political system. It can be mentioned here that, it is a very positive development that politics itself is becoming more *competitive*. That is, the hegemony on the Congress Party is coming under threat – a process which has been under way now for some time and was very much observed when Rajiv Gandhi could not get the required majority and chose to sit in the opposition in 1989. Political parties, which are operating in a highly competitive environment, may have to find dynamic and innovative ways of developing social security systems which actually help the poor and not just announce populist schemes like free electricity, etc. What Digvijay Singh has done in Madhya Pradesh in the last five years is a case in point. However, it also needs to be mentioned that sensitivity to the needs of the poor is not a distinguishing feature of a democracy – totalitarian regimes also need to be sensitive about it and at times have been, in reality, more sensitive about it, as the case of China illustrates. Thus, whether the poorer sections in India will be marginalised or will be helped in first becoming economically strong and then exposed to competition, how much social security they will get, are all largely political questions.

The third issue is that of 'freedom'. The demands for a greater say in the political process of countries have been increasing in most of Africa and Latin America as also in South Korea and China. The Tienanmen Square episode in China and the student unrest in South Korea point towards this burning desire for freedom. What is the nature of this freedom which people want? One could call it political-cultural freedom. It is not only in the political field that people want autonomy. It is a well known fact that in totalitarian regimes, people feel alienated from their surroundings. Even when the basic needs of the people are taken care of, the aspirations of the people have no outlet. In some of these countries, it is observed that there is a shift from totalitarian regimes to democracy and back again. This process has been under way for a couple of decades in Pakistan, Bangladesh, Nigeria and most of Latin America. It is usually the failure of democracy to give stability and a clean governance that has led to the rise of totalitarian regimes. However, a positive fall-out of the process of globalisation is going to be greater and greater demand for autonomy by the people. This happened even in China within a decade of the beginning of the economic liberalisation process. Though the demands of the students were not much, the Tienanmen Square movement was ruthlessly crushed by those in powers. The purpose was to send a message that no change would be accepted in the political system of the country. The same thing was repeated in South Korea. However, in future the people from these countries are going to ask for more and more autonomy and the political regimes will find it increasingly difficult to crush these movements. India, in this sense, is different from most of the other developing countries. Though democracy was imposed in India from the top, it seems to have taken strong roots in the last 50 years. In India what we are likely to have is more and more of democracy for the people who were earlier exercising their rights more in a token manner. Besides this, more and more groups and lobbies would be formed who would be fiercely fighting to get what they desire out of the politico-economic and the social system. Thus issues like release of the film 'Fire', cricket test match with Pakistan and conversions would be strongly contested.

Thus, on the one hand, as the incentive system for the efficient improves, social security for the left-out also has to improve. This would contribute a great deal towards the maintenance of political stability, though it would not assure it. This tension, in fact, comes out very much in the statements and the manner in which Chandrababu Naidu is going about developing Andhra Pradesh. In a recent interview he has said that he does not spend any money on information technology and industry, most of the money there is private capital. According to him, "I am spending real money only in rural areas".

Thus India, like many other similar economies, will have to balance between incentives, social security and political-cultural freedom if the equilibrium between the economy and polity has to be established. What gets precedence at a point of time would largely be a pragmatic question. Thus on each and every issue there would be intense bargaining and some agreement would be reached only to be breached as soon as the ground realities change. The divergent historical evolutions of different countries will play an important role in this process. What will be the role of ideology in all this? Ideology predetermines for us the 'good things' of life and drives us to achieve them. However, it appears that pragmatism would be the name of the game.

New Series of National Accounts Statistics

EPW Research Foundation

I
Introduction

THIS note is a sequel to the comprehensive volume on *National Accounts Statistics of India: 1950-51 to 1996-97* (October 1998) published recently by us. That publication brought together a continuous set of time-series for the entire 47-year period 1950-51 to 1996-97, based on the Central Statistical Organisation's annual estimates of various national accounts aggregates and components with 1980-81 as the base year. This old base-year series has come to an end and the CSO has now replaced it by the revised series of national accounts with 1993-94 as the new base year. This is in conformity with the decision taken some years ago that as far as possible the various index numbers and such other economic statistics will have a common base period. Earlier, the CSO had brought forward the base year of its index numbers of industrial production from 1980-81 to the same 1993-94. But, the index numbers of agricultural production, brought out by the Directorate of Economics and Statistics, Department of Agriculture and Co-operation (Government of India), still suffer the old base of triennium ending 1981-82. So are the index numbers of wholesale prices, which also still carry the same 1981-82 as the base period. Reportedly, the revisions of these statistics were taken up some years ago but they have not as yet seen the light of day.

Insofar as the national accounts statistics are concerned, the CSO has revealed that its base year would henceforth be revised every five years to capture the rapidly changing structural features of the economy. Earlier, the CSO was depending on the population census figures to estimate the size of the workforce which, when multiplied by the estimated value added per worker, gave GDP originating in segments of the various unorganised sectors. Therefore, the base year generally coincided with the decennial census periods, namely, 1970-71, 1980-81, etc. But, the CSO has now begun adopting the workforce estimates as revealed by the quinquennium rounds of employment and unemployment surveys of the National Sample Survey Organisation (NSSO) as they are considered as more accurate, which also makes it possible to shift the base period every five years [Kulshreshtha 1999].

Apparently, as per the recommendations of the three expert groups on agriculture, industry and services sectors, appointed by the CSO in March 1998 (whose reports were submitted in April 1998) and the deliberations of the Advisory Committee on National Accounts Statistics, many improvements have been incorporated in the new series [Kulshreshtha and Kolli 1999]. As explained in Section II, the government officials have also identified a number of data gaps and suspected the possible underestimation of GDP and related estimates. Besides, there have been intensive deliberations, in many official and professional fora, on the proposed adoption by India of various recommendations of the 1993 SNA [See a series of papers in *The Journal of Income and Wealth*, July 1996 and Kulshreshtha, et al, 1998 and 1999; see also Roy Choudhury 1996].[1] Due to some sophisticated data requirements, these SNA recommendations such as those concerning the production boundary, assets boundary and institutional sector accounts can be implemented only in phases.[2]

For the present, we have limited information on the nature of revisions effected in the method of estimation and coverage of industries and sectors in the new series of national accounts. Likewise, as a first shot the revised estimates have been published only for a few of the past years starting with the base year 1993-94. The CSO has promised to bring out both a brochure on the revisions and a publication presenting longer time-series for the past years based on the revised methods and procedures. This note and the accompanying statistical tables present the available information on the nature of revisions and the new data series. To bring out the importance of the revisions, an attempt is made to present the earlier estimates based on the 1980-81 series alongside the revised series for the period 1993-94 to 1996-97. The new series is available generally up to 1997-98, and in some respects, based on quick estimates up to 1998-99.

II
Reported Underestimation of GDP

In recent months, M D Asthana as secretary, department of statistics (GoI), has been exposing, through media coverage and seminar papers and discussions, the perceived data gaps including non-inclusion and undercoverage of products and proposing that GDP was considerably underestimated.[3] In a recent paper, he has identified five major sources of underestimation of GDP from the agricultural sector:

(i) Non-inclusion of production of floriculture, mushrooms and other high valued crops;
(ii) Underestimation of production in the case of fruits and vegetables (as evidenced by onions export), isabgol, guar seeds, black pepper, tea, coffee, meat and other livestock products;
(iii) Non-coverage of area under 3rd and 4th crops in some states since Girdwari is not undertaken there;
(iv) Underestimation of area under different crops as brought out by the scheme of improvement of crop statistics (ICS); and
(v) Use of price data supplied by the states [Asthana 1998a].

Asthana has cited therein products like cashewnuts, coffee, black pepper and isabgol, in which the reported value of production – some even in terms of quantity – has been less than that of exports, and also in which the prices used for the valuation of agricultural commodities have been much less than export prices. What is more, it is also shown in his paper, based on discrepancies noticed as between the estimates of all-India crop area reported by the entries of state primary workers under the ICS and those revealed by its supervisory checks, that there has been a distinct trend of under-reporting of area for all the 10 major crops (ibid). In the latest press release issued on February 12, 1999, the department of statistics (GoI) has summed the situation regarding agricultural statistics thus:

> With reference to the agricultural statistical system in general, there have been problems on the quality of estimates. It is estimated that area enumeration in respect of about 40 per cent of the land under major agricultural crops is unscientific. The old established order was abolished in some states without creating a new one in its place. Productivity measurements in crops, based on crop cutting experiments are in poor shape and leave much to be desired. Previously, the NSSO used to bring out estimates on selected crops but the practice was discontinued after

the two sets of data (official estimates and NSSO estimates) converged. There is a need to restart independent estimation of agriculture production, in the light of present quality of agriculture estimates [DOS 1999].

As for the industrial sector, while the data in respect of the registered manufacturing is considered as fairly accurate, it is the estimates for the unorganised manufacturing which have been the bugbear for the national income estimators, with the information regarding this sector remaining "the weakest in terms of reliability and timeliness, necessitating a range of assumptions when preparing GDP estimates" [Minhas and Roy Choudhury 1998]. In the latest DOS press release referred to above, the weaknesses in the official data in respect of the unregistered manufacturing sector are further highlighted in the following words:

> Since estimates of this sector (unorganised manufacturing sector) are based on workforce estimates, the change is only with reference to introduction of new workforce estimates, based on NSSO surveys and population census, as explained above. In fact, in the revised series, this sector's estimates are less than those presented in the previous series. An alternative set of estimates of small-scale industries, available from the office of the DC(SSI), show that the share of unorganised sector is about 60 per cent of total manufacturing sector. Since the department is not using the figures of DC (SSI), the contribution of unorganised sector, based on the current methodology, is only about 31 per cent of the total sector. This still shows that we are not able to capture the contribution of unorganised sector fully. It is our constant endeavour to include all sector's contribution to the GDP realistically [DOS 1999].

As is known, based on the census frame provided by the Economic Censuses (three having been conducted so far in 1977, 1980 and 1990 and the fourth was done in 1997), the follow-up surveys have been conducted by the CSO on 'directory manufacturing establishments' (DMEs, employing 6-10 persons if using power and 6-20 persons without power) and by the NSSO on 'non-directory manufacturing establishments' (NDMEs, employing less than 6 persons with at least one hired worker) and own-account manufacturing enterprises' (OAMEs, i e, household enterprises not employing hired workers). These have been done to derive the benchmark estimates of value added per worker, which are carried forward for other years by certain physical indicators. Of the three follow-up surveys done so far, namely, in 1978-79, 1984-85 and 1989-90, the data obtained from the first follow-up survey were not considered reliable for the purpose. The results of the 1984-85 survey were found satisfactory and they have been used hitherto continuously for the purpose. We do not as yet know the fate of the 1989-90 survey results.

Likewise, with regard to the estimation of income originating in the unorganised services sector, the CSO officials have questioned the quality of data thrown up by the 'Enterprise Surveys' (directory trading, non-directory trading and trading establishments, for instance) on value added per worker and by the population censuses on the size of workforce [Kulshreshtha and Singh 1998]. Instead, they have suggested (a) the adoption of workforce estimates from the NSSO's quinquennial surveys on employment and unemployment, and (b) introduction of some corrections to the estimates of value added per worker (VAPW) as revealed by the 'Enterprise Surveys'. In the meantime, the DOS launched a survey of enterprises in the month of August 1998 with a view to improving the quality of estimates on value added per worker in the unorganised segment of both manufacturing and services sectors. The survey, to be carried out in four sub-rounds until June 1999, aims to capture VAPW estimates of unorganised sector of all economic activities at one point of time, which are not presently available. Also, for the first time, value added estimates are sought to be attempted through both production and income approaches [see Kulshreshtha and Ghosh 1999].

Some of the Corrections Introduced in the Revised Estimates

Indications are that some of the suggestions contained in the above statements have already been implemented, and some by their very nature can be corrected only in the long run [Kulshreshtha and Kolli 1999]. In Section III below, we have indicated the nature of revisions on which the CSO has gone on record as having been introduced. As we review the revised data in Section IV, we will also have occasions to pinpoint the nature of revisions that have occurred in the estimates of GDP and other national account aggregates as a result of these and possibly other changes introduced in the methodology and compilation procedures.

III
Revisions in the Methodology and Coverage

As stated above, the details of revisions effected in the new series are known in brief and they are listed in Statement A. These revisions can be divided into five broad categories. First, as cited earlier, the estimations of income from unregistered manufacturing and service activities have been done on the basis of the new workforce estimates produced by the NSSO surveys on employment-unemployment instead of the estimates derived from the population censuses. Second, several new products have been included in the revised series. They encompass four major sectors: agricultural and allied activities (several horticultural and floricultural

Statement A: Improvements incorporated in the New Series of National Accounts

Agriculture and Allied Activities

(1) Inclusion of several horticultural and floricultural crops.
(2) Inclusion of production of crops in the foreyard/backyard.
(3) Improvement in the coverage of fuelwood captured from consumption approach.
(4) Improvement in the coverage of marine fish: relating to deep sea fishing and separate evaluation of prawns and shrimps.

Mining and Manufacturing

(5) Inclusion of the activities of private coal mines and coal washeries
(6) Improvement in coverage to take into account the activities relating to repair of locomotives and other rail equipment in totality.
(7) Estimation of income from unregistered manufacturing activities on the basis of the new working force estimates based on the NSS Employment Survey results instead of the population census.
(8) Use of quick estimates of Annual Survey of Industries for 1996-97 and 1997-98.

Banking and Insurance

(9) Improvement in the indicator for constant price estimates of banking.
(10) Improvement in the methodology in the estimation of product from Life Insurance.
(11) Inclusion of services of Employees Provident Fund Organisation.
(12) Allocation of imputed banking charges to industries and final users in totality.

Other Services

(13) Estimation of income from unorganised service activities on the basis of the new working force estimates based on the NSS Employment Survey results instead of the population census.
(14) Inclusion of private communication services.
(15) Inclusion of private activities under TV and Radio.
(16) Capturing the activities of tailoring separately.
(17) Capturing the activities of high value (software, consultancy, etc) business services separately.

crops and crops in the foreyard and backyard); mining (private coal mines and coal washeries); banking and finance (employees' PF organisation); public services in quasi-government bodies (research and scientific institutions); and other services (lottery sales services, private communication services and private activities under television and radio such as cable operators and private TV channels). Third, improvement has been effected in the coverage of existing products like fuelwood captured from consumption approach, marine fish in the area of deep-sea fishing and separate evaluation of prawns and shrimps, activities relating to repair of locomotives and other rail equipment to be covered in totality, and capturing the activities of tailoring and high-value business services (software, consultancy, etc), separately. The fourth set of changes relates to methodological improvements in applying a new indicator for constant price estimates for banking and estimating value added from life insurance, as also in allocation of imputed banking changes to industries and final users in totality. In the existing system of estimation, these imputed bank charges have been partly treated as intermediate consumption of industries and partly as the final consumption of government and the households. Finally, there is a major change in the use of the data generated from the Annual Survey of Industries (ASI). Hitherto, there has been a time-lag of about three years in the publication of the summary results of ASI; hence, for the years for which ASI results were not available, the industrywise estimates of output and GVA were being prepared on the basis of relevant indices of industrial production and wholesale prices and these were subsequently revised when the ASI became available. From now on the key results of ASI will be released with a lag of only about 9 to 10 months [Asthana 1998b]. Accordingly, the latest revision of national accounts has taken into account the quick estimates of the ASI for as late a period as 1996-97 and 1997-98. Besides, incidentally, in contrast to the past practice of releasing only summary results every year and detailed results once in five years, the department of statistics (GOI) will henceforth release detailed results of ASI every year (ibid).

Apart from the above changes, some fresh data sources have also been tapped by the CSO for the new series. For instance, in agriculture, estimates of current repairs, maintenance of fixed assets and other operational costs are now based on the latest 1991-92 results of the All-India Debt and Investment Survey (AIDIS)

IV
Comparison with Old Series

Tables 1 to 12 accompanying this note present all the available national accounts data based on the revised series for the period 1993-94 to 1998-99. Along with the revised series, we have also presented the old series for the period 1993-94 to 1996-97. There were the advance estimates for 1997-98 as per the old series but the same are not presented here as such advance estimates are only for a few items, which are produced before the closure of the relevant financial year and which are based on anticipated levels of agricultural and industrial production, budget estimates of government expenditure and performance of key sectors as available.[4]

As may be seen from Table 1, estimates of different variants of national income (GDP, GNP, NDP and NNP) stand revised upwards by about 9 to 12 per cent, whereas the estimates of private final consumption expenditure (PFCE) have moved up higher by about 14 to 21 per cent in different years and those of domestic saving and capital formation the least by about 3 to 4 per cent each. This has happened because a majority of the new items of economic activity now covered essentially relate to private consumption such as, foreyard and backyard production, floriculture, certain horticultural crops, deep-sea fishing and prawns, private communication services relating to television and radio broadcasting and tailoring services. Significantly, even in absolute terms, the upward revision in PFCE at current prices ranging from Rs 68,312 crore to Rs 151,364 crore has been higher than that in GDP at market prices ranging from Rs 66,203 crore to Rs 132,875 crore. For 1993-94 for which by now almost all firm data are available, the upward revision has been of the order of Rs 66,203 crore or 9 per cent for GDP and Rs 68,312 crore or 13.7 per cent for PFCE. In regard to domestic saving and capital formation, new items covered have hardly had any direct effect on their estimation and the meagre revisions noticed in their absolute numbers may have arisen from what may be called 'scale effects' originating in higher numbers of GDP and from the ongoing practice of updating data sources. In respect of capital formation, however, the revised estimates have turned out to be higher by about 9 to 14 per cent than the old estimates for two years 1993-94 and 1994-95, the reasons for which cannot be discerned until fuller details of the revisions are known.

Data presented in Tables 2 to 4 show that in sectoral GDP, some of the largest revisions, in proportionate terms, have occurred in service sectors, essentially as a result of the inclusion of four new items of communication and high-value business services (see Statement A). The revisions have been over 33 per cent in respect of 'real estate, ownership of dwellings and business services'. To what extent the use of NSSO data on workforce has affected the estimation of income from unorganised services is difficult to gauge in the absence of details. [For the list of service categories for which the application of NSSO workforce is relevant, see CSO 1989: 168-69]. A distinct downward revision of around 10 to 11 per cent has taken place under 'unregistered manufacturing' possibly as a result of the application of the NSSO data on workforce instead of the population census data as hitherto.

Amongst agriculture and allied products, a substantial revision of over one-third has been under 'fishing' following the inclusion of deep-sea fishing and separate valuation of prawns and shrimps. Incorporation of the new items of horticultural and floricultural crops and production of foreyard and backyard crops has helped to raise the size of value added from 'agriculture' by about 8 to 13 per cent

Statement B: Compound Growth Rates

(In per cent per annum)

Industry	New Series (1994-95 to 1997-98)	Old Series (1994-95 to 1997-98)
1 Agriculture, forestry and fishing	3.5	2.1
1.1 Agriculture*	4.9	3.4
2 Industry	9.1	9.1
2.1 Mining and quarrying	5.1	4.5
2.2 Manufacturing	10.0	9.8
2.3 Electricity, gas and water supply	7.1	7.1
3 Services	8.3	8.5
3.1 Construction	5.1	6.2
3.2 Trade, hotels and restaurants*	12.0	11.9
3.3 Transport, storage and communication*	8.9	8.4
3.4 Financing, insurance, realestate and business services	7.5	8.8
3.5 Community, social and personal services	7.8	7.6
4 Total gross domestic product at factor cost	7.1	6.9

Note: * Denotes compound growth rates of three years (1994-95 to 1996-97) as the comparable sectoral data for 1997-98 as per the old series are not available.

(a large revision of 21 per cent in 1996-97 may have been an aberration because, in respect of the old series, the data relate to quick estimates. This feature is true of many other sectors as well).

Growth Rates Generally Unchanged

It is, however, noteworthy that upward revisions in GDP or sectoral GDP revisions have not resulted in any noticeable (or consistent) changes in growth rates; this is also admitted by the DOS in its press release cited above. The overall real GDP growth in 1994-95 was identical in both the series at 7.8 per cent, but in the next two years the revised GDP at 1993-94 prices showed slightly higher growth at 7.6 per cent and 7.8 per cent as compared with those shown by the old numbers at 1980-81 prices at 7.2 per cent and 7.5 per cent, respectively. For 1997-98, on the other hand, the revised data show a lower growth, though fractionally, at 5 per cent as compared with 5.1 per cent revealed by the old series. Thus, the compound growth rate in real GDP for the four-year period 1994-95 to 1997-98 works out fractionally higher at 7.1 per cent per annum in the new series as against 6.9 per cent per annum in the old series. This slightly higher growth in the revised real GDP is the combined result of (i) significantly improved growth rates in agricultural and allied activities (3.5 per cent as against 2.1 per cent), in mining and quarrying (5.1 per cent against 4.5 per cent), and in manufacturing (10 per cent against 9.8 per cent); and (ii) a slightly reduced trend growth in services, which in turn has been the combined effect of higher growth in all services sector items except construction and financing, insurance and real estate (see Table 3; see also Statement B for a summary picture).

In banking, the indicator for constant price estimates, hitherto the aggregate deposits deflated by the wholesale price index, has been replaced; it is also said that a new treatment is being given to the issue department of RBI.

Incidentally, a new phenomenon found in the industrial sector in recent years, not necessarily in the new series, has been that the rate of growth as revealed by the value added figures in real terms in respect of registered manufacturing is higher than the rate of growth shown by the index of industrial production. This is because there have been signs of better material input efficiency (probably also reflecting better capital and labour efficiency) in the registered manufacturing sector, which is indicated in a rising ratio of gross value added in gross value of output [see EPWRF 1998:65].

Changing Sectoral Composition of GDP

In the sectoral composition of GDP, there has occurred a distinct change following the revision: for example, for 1996-97 a sharp 2 percentage points reduction in the proportion of GDP originating in manufacturing from about 19.4 per cent to 17.4 per cent, which has been shared between the services sector (1 percentage point from 53.6 per cent to 54.6 per cent) and agriculture and allied activities (1 percentage point from 27 per cent to 28 per cent). These revisions further confirm what may be called the structural 'stagnation' of the Indian economy in that the share of the manufacturing sector in total GDP has remained less than 18 per cent that was attained in the late 1970s. Since then some improvement has taken place in infrastructure industries like mining and electricity, particularly the latter. Likewise, in the services sector, there has been a slight improvement in the share of physical infrastructure facilities, namely, transport, storage and communications, but the bulk of the increase has been captured by various other services in trade, hotels, finance and business services, and community, social and personal services. Overall, the long-term phenomenon of a decline in the share of agriculture, stagnation in that of industry and a rise in the proportion of services has been reinforced also by the revised series. With significant upward revisions in the estimates of private sector activities, the share of public sector has been eroded as a statistical consequence (Tables 10 to 12).

Downward Revisions in Saving and Investment Ratios

The saving and capital formation estimations in absolute terms do not seem to have been affected to any significant extent by the revision except probably for the ongoing practice of using more recent data. But, as a result of the upward revision in the size of GDP, both domestic saving and investment ratios have been placed lower by about 1.0 to 1.5 percentage points in each of the past five to six years. For instance, for 1996-97, the earlier saving estimation of 26.1 per cent of GDP at current market prices has been slashed to 24.4 per cent and gross domestic capital formation from 27.3 per cent to 25.7 per cent. As a result of these revisions, the saving ratio has only limped forward by 1.3 percentage points from 21.8 per cent in 1993-94 to 23.1 per cent in 1997-98 and the gross investment ratio by 2.4 percentage points from 22.4 per cent to 24.8 per cent (see Statement C and also Tables 6 and 7).

Notes

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1 That the data requirements for implementing the 1993 SNA would be quite large is evident from the following summary statement on the subject:
While the implementation of new UN System of National Accounts, 1993 [SNA 1993] and the IMF's Special Data Dissemination Standards (SDDS) will mean collecting a large amount of additional data, the quality and coverage of data that presently goes into the computations of GDP, need considerable improvement.

Statement C : Saving and Investment Ratios

(per cent of GDP at current market prices)

Item	New Series					Old Series			
	1997-98	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94
1 Gross domestic saving	23.1	24.4	24.1	24.2	21.8	26.1	25.3	25.6	22.7
1.1 Public sector	1.0	1.5	1.9	1.5	0.5	1.9	2.3	1.8	0.6
1.2 Private corporate sector	3.8	4.1	4.8	3.4	3.4	3.9	4.2	3.5	3.6
1.3 Household sector	18.3	18.8	17.4	19.3	17.9	20.3	18.8	20.3	18.5
1.3.1 Financial saving	10.3	9.8	8.2	11.6	10.8	10.7	8.6	11.3	11.7
1.3.2 Saving in fiscal assets	8.0	9.0	9.3	7.7	7.1	9.6	10.3	9.0	6.8
2 Gross capital formation (adjusted) (3+4)	24.8	25.7	25.8	25.4	22.4	27.3	27.1	26.9	23.3
3 Gross capital formation (unadjusted)	23.4	23.1	25.6	22.9	20.8	25.2	27.3	25.1	21.3
3.1 Public sector	7.0	6.7	7.4	8.5	8.1	7.4	7.9	9.0	8.6
3.2 Private corporate sector	8.4	7.5	9.0	6.7	5.6	8.2	9.1	7.1	5.9
3.3 Household sector	8.0	9.0	9.3	7.7	7.1	9.6	10.3	9.0	6.8
4 Errors and omissions	1.4	2.5	0.2	2.4	1.6	2.1	-0.1	1.8	2.0

The SNA 1993 recommends preparation of sequence of accounts for all the institutional sectors into which the economy has divided, namely, (i) non-financial corporations, (ii) financial corporations, (iii) general government, (iv) households, and (v) non-profit institutions serving households. Several satellite accounts including the environmental accounts have also been recommended. The other key features of SNA 1993 are the enlargement of production and assets boundaries of the 1968 SNA. As per the extended production boundary the production of the households for own-account consumption, illegal and underground production are required to be reckoned with in the national accounting framework. The main areas where the satellite accounting framework has been suggested relate to environmental economic accounting, tourism accounting, extended production boundary (gender issues) [Asthana 1998a and 1998b. See also Kulshreshtha, Kolli and Singh 1998, and Kulshreshtha, Kumar and Singh 1999].

2 The United Nations' Statistical Commission recognises "the long and winding road to the full 1993 SNA implementation": it has recommended 6 milestones or phases in this respect. [See *SNA News and Notes*, issue no 4, July 1996. This newsletter, issued as a biannual information service of the Inter-Secretariat Working Group on National Accounts (ISWGNA), is prepared by the Statistics Division of the United Nations; it is available on internet: http://www.imf.org/external/pubs/ft/sna/default.htm or http://www.un.org/Depts/unsd/sna/sna.htm]

3 See interview given by Asthana to the *Business Standard* dated July 24, 1998. To quote him.

> Some of the figures are so absurd that it is certain that the correct GDP is not captured. Now let me tell you why I think GDP is under-reported. Mind you, the professional statisticians who work at the department have known this for a long time. The GDP is contributed to by three sectors. The service sector contributes to 42 per cent of GDP. But all of the IT sector is probably not reflected accurately in this. Similarly your cable man and the TV repairman or any other service that has been in existence for 10 years or less is not captured accurately. We do service sector surveys once in five years whereas other countries do it every quarter. The agriculture sector contributes to about 24 per cent of the GDP. This is even worse represented. The crop calendar for the Department of Agriculture is 32 years old. Several products have been added since and if you go to the respective departments, each one state that India is one of the top five producers of that product in the world. This list of what is not captured in the GDP includes dairy products, poultry, a large part of marine products, vegetables, mushrooms, flowers.
>
> In the industrial sector, the large sector is fairly accurate. But in the small sector we cannot even agree on the number of units across ministries. According to the department of small scale industries, there are 14 to 15 lakh units based on the 1987-88 census. According to the current update there are 60 lakh units. According to excise records there are 32 lakh units with a turnover of more than Rs 30 lakh. Our economic census, which includes household industries, puts the estimate at 140 lakh units [Asthana 1998].

A more radical view has been aired by M R Sivaraman, India's executive director at the International Monetary Fund (IMF), who went to the extent of stating that, "India's real GDP is 60 to 100 per cent more than what is indicated" (see *The Sunday Times of India*, July 5, 1998). In an academic response to these pronouncements, the inference that data gaps necessarily imply serious underestimation of the overall GDP came to be questioned. Stating that Sivaraman's assertions were based on "ill-informed casual empiricism", Minhas, Tendulkar and Visaria (1998) argue that:

> The conclusion arises out of misunderstanding about the concepts, methods and procedures of estimating GDP. Some underestimation of GDP is possible in some of the unorganised activities, whose contribution to GDP is estimated from reported income/earnings because there is a universal tendency (in all countries, not only India) among respondents to income surveys to understate income. In addition, existing data cannot capture certain activities like petty services. However, their importance in GDP is limited. This is because, while such activities loom large in terms of employment and hence in any casual empiricism (of the type favoured by Mr Sivaraman), their contribution to GDP is much smaller because of the very low productivity per worker in such activities. Having been associated periodically with the work of the Central Statistical Organisation for more than two decades, we are familiar with the methods and procedures of GDP estimation and their approximation to the basic concept of national accounts. In our considered judgment, while conceding certain problems with GDP estimation, there is no basis for the allegation of a very large magnitude of underestimation. Mr Sivaraman's statements are misleading, baseless and reflect lack of understanding about the data base of India's GDP.

To which Sivaraman (1998b) responded and chose to charge that "As most of our economists, all these years, have been devoting more attention to studying India's poverty rather than her achievements, their thinking has become warped and disoriented resulting in their seeing nothing but poverty in India". Further, defending himself that his observation on the GDP of India was not casual but was based on discussions with economists and officials of the Central Statistical Organisation (CSO) and on his own observation in the field, Sivaraman enumerated six factors suggesting GDP underestimation: third crop sown in most parts is not taken into account; correct estimation is not done of horticulture, floriculture, farm forestry and pisciculture; gross underestimation of value addition in the small-scale sector; suppression of production in the medium- and large-scale sector for excise tax evasion purposes, value addition in the services sector as a whole is not based on accurate reporting and, that ascribed to workers in medical and health services, legal services and business services is not in accordance with ground realities; and massive import of gold is not accounted for in statistics.

4 For the year 1997-98 in particular, there was an update of *advance estimates* in July 1998, that is, after the closure of that financial year. The sectoral growth rates revealed in this update have been incorporated in the compound growth rates presented in Statement B above.

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Table 1: National Product, Consumption Expenditure, Saving and Capital Formation: A Comparison of New and Old Series

(Rs crore)

Item	New Series										Old Series				Excess of New Series over Old Series			
	At 1993-94 Prices					At Current Prices					At Current Prices				At Current Prices			
	1998-99	1997-98	1996-97	1995-96	1994-95	1997-98	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
1 Domestic Product																		
1.1 Gross Domestic																		
Product (GDP)	1109983	1049191	998978	926412	861064	1426670	1285259	1103238	943408	799077	1149215	1006286	868019	732874	136044	96952	75389	66203
at factor cost	*5.8*	*5.0*	*7.8*	*7.6*	*7.8*	*11.0*	*16.5*	*16.9*	*18.1*		*14.2*	*15.9*	*18.4*	*16.2*	[11.8]	[9.6]	[8.7]	[9.0]
1.2 Net Domestic																		
Product (NDP)	989852	936919	894960	830091	771996	1278606	1153977	989129	846408	716118	1022033	894700	772680	651322	131944	94429	73728	64796
at factor cost	*5.6*	*4.7*	*7.8*	*7.5*	*7.8*	*10.8*	*16.7*	*16.9*	*18.2*		*14.2*	*15.8*	*18.6*	*16.8*	[12.9]	[10.6]	[9.5]	[9.9]
1.3 GDP at market prices	..	1151014	1096433	1022285	946335	1563552	1409849	1217963	1037842	876952	1276974	1118964	963492	810749	132875	98999	74350	66203
		5.0	*7.3*	*8.0*	*7.9*	*10.9*	*15.8*	*17.4*	*18.3*		*14.1*	*16.1*	*18.8*	*14.9*	[10.4]	[8.8]	[7.7]	[8.2]
1.4 NDP at market prices	..	1038742	992415	925964	857267	1415488	1278567	1103854	940842	793993	1149792	1007378	868153	729197	128775	96476	72689	64796
		4.7	*7.2*	*8.0*	*8.0*	*10.7*	*15.8*	*17.3*	*18.5*		*14.1*	*16.0*	*19.1*	*15.2*	[11.2]	[9.6]	[8.4]	[8.9]
2 National Product																		
2.1 Gross National																		
Product (GNP)	1099704	1038692	988255	913810	847849	1413231	1272177	1089754	930325	786997	1135370	992802	854936	720531	136807	96952	75389	66466
at factor cost	*5.9*	*5.1*	*8.1*	*7.8*	*7.7*	*11.1*	*16.7*	*17.1*	*18.2*		*14.4*	*16.1*	*18.7*	*16.4*	[12.0]	[9.8]	[8.8]	[9.2]
2.2 Net National																		
Product (NNP)	979573	926420	884237	817489	758781	1265167	1140895	975645	833325	704038	1008188	881216	759597	638979	132707	94429	73728	65059
at factor cost, i e,																		
National Income	*5.7*	*4.8*	*8.2*	*7.7*	*7.8*	*10.9*	*16.9*	*17.1*	*18.4*		*14.4*	*16.0*	*18.9*	*17.0*	[13.2]	[10.7]	[9.7]	[10.2]
2.3 GNP at market prices	..	1140515	1085710	1009683	933120	1550113	1396767	1204479	1024759	864872	1263129	1105480	950409	798406	133638	98999	74350	66466
		5.0	*7.5*	*8.2*	*7.9*	*11.0*	*16.0*	*17.5*	*18.5*		*14.3*	*16.3*	*19.0*	*15.0*	[10.6]	[9.0]	[7.8]	[8.3]
2.4 NNP at market prices	..	1028243	981692	913362	844052	1402049	1265485	1090370	927759	781913	1135947	993894	855070	716854	129538	96476	72689	65059
		4.7	*7.5*	*8.2*	*7.9*	*10.8*	*16.1*	*17.5*	*18.7*		*14.3*	*16.2*	*19.3*	*15.4*	[11.4]	[9.7]	[8.5]	[9.1]
3 Consumption Expenditure																		
3.1 Private final consumption expenditure in the	..	718269	691182	647371	607348	960401	886230	757384	660460	567239	734866	649094	575335	498927	151364	108290	85125	68312
domestic market		*3.9*	*6.8*	*6.6*	*7.1*	*8.4*	*17.0*	*14.7*	*16.4*		*13.2*	*12.8*	*15.3*	*14.6*	[20.6]	[16.7]	[14.8]	[13.7]
3.2 Government final	..	158514	132785	119305	103688	173864	144049	127024	107169	96240	132166	115957	100498	89926	1183	11067	6671	6314
consumption expenditure		*19.4*	*11.3*	*15.1*	*7.7*	*20.7*	*13.4*	*18.5*	*11.4*		*10.3*	*10.4*	*10.4*	*11.1*	[0.9]	[9.5]	[6.6]	[7.0]
4 Estimates at per capita level																		
4.1 Population (in million)	..	959	943	927	908	959	943	927	908	891	936	920	904	888	7	7	4	3
		1.7	*1.7*	*2.1*	*1.9*	*1.7*	*1.7*	*2.1*	*1.9*		*1.7*	*1.8*	*1.8*	*1.8*	[0.7]	[0.8]	[0.4]	[0.3]
4.2 Per capita NNP at																		
factor cost (per capita	10847	9660	9377	8819	8357	13193	12099	10525	9178	7902	10771	9578	8403	7196	1328	947	775	706
national income)	*4.0*	*3.0*	*6.3*	*5.5*	*5.8*	*9.0*	*15.0*	*14.7*	*16.1*		*12.5*	*14.0*	*16.8*	*14.9*	[12.3]	[9.9]	[9.2]	[9.8]
4.3 Per capita private final																		
consumption expenditure	..	7490	7330	6984	6689	10015	9398	8170	7274	6366	7851	7055	6364	5619	1547	1115	910	747
in the domestic market (Rs)		*2.2*	*5.0*	*4.4*	*5.1*	*6.6*	*15.0*	*12.3*	*14.3*		*11.3*	*10.9*	*13.3*	*12.5*	[19.7]	[15.8]	[14.3]	[13.3]
5 Domestic Saving																		
5.1 Gross	..	..	..	..	..	361518	344391	293560	251522	191588	333816	283003	247087	183710	10575	10557	4435	7878
5.1.1 Per cent of GDP	..	..	..	..	..	23.1	24.4	24.1	24.2	21.8	26.1	25.3	25.6	22.7	[3.2]	[3.7]	[1.8]	[4.3]
5.2 Net	..	..	..	..	..	213454	213109	179451	154522	108629	206634	171417	151748	102158	6475	8034	2774	6471
5.2.1 Per cent of NDP	..	..	..	..	..	15.1	16.7	16.3	16.4	13.7	18.0	17.0	17.5	14.0	[3.1]	[4.7]	[1.8]	[6.3]
6 Capital Formation																		
6.1 Gross	..	294108	285508	263049	241565	387377	361687	314340	263415	196379	321848	304980	241379	172532	39839	9360	22036	23847
6.1.1 Per cent of GDP	..	25.6	26.0	25.7	25.5	24.8	25.7	25.8	25.4	22.4	25.2	27.3	25.1	21.3	[12.4]	[3.1]	[9.1]	[13.8]
6.2 Net	..	181836	181490	166728	152497	239313	230405	200231	166415	113420	194666	193394	146040	90980	35739	6837	20375	22440
6.2.1 Per cent of NDP	..	17.5	18.3	18.0	17.8	16.9	18.0	18.1	17.7	14.3	16.9	19.2	16.8	12.5	[18.4]	[3.5]	[14.0]	[24.7]
Memo Item:																		
Gross Domestic Product at	..	311883	296845	276132	257700													
factor cost at 1980-81 prices		*5.1*	*7.5*	*7.2*	*7.8*													

Figures in italics are percentage variations over the previous year. Figures in square brackets are excess of the new series over the old series in per cent. .. not available.

Table 2: Gross Domestic Product at Factor Cost by Economic Activity (Sectorwise Percentage Distribution): New and Old Series

(Rs Crore)

Industry	New Series										Old Series				Excess of New Series over Old Series			
	At 1993-94 Prices					At Current Prices					At Current Prices				At Current Prices			
	1998-99	1997-98	1996-97	1995-96	1994-95	1997-98	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
1 Agriculture, forestry	292060	277418	280179	256096	255522	392134	376091	312791	284042	242438	310144	276852	259064	223705	65947	35939	24978	18733
and fishing	*26.3*	*26.4*	*28.0*	*27.6*	*29.7*	*27.5*	*29.3*	*28.4*	*30.1*	*30.3*	*27.0*	*27.5*	*29.8*	*30.5*	[21.3]	[13.0]	[9.6]	[8.4]
1.1 Agriculture	..	254148	257478	234842	235060	359586	347501	287697	261239	223148	287132	255613	239159	206322	60369	32084	22080	16826
		24.2	*25.8*	*25.3*	*27.3*	*25.2*	*27.0*	*26.1*	*27.7*	*27.9*	*25.0*	*25.4*	*27.6*	*28.2*	[21.0]	[12.6]	[9.2]	[8.2]
1.2 Forestry and logging	..	11571	11183	10808	10652	14469	13535	12365	11704	10216	11293	11267	11154	9836	2242	1098	550	380
1.3 Fishing	..	11699	11518	10446	9810	18079	15055	12729	11099	9074	11719	9972	8751	7547	3336	2757	2348	1527
2 Industry	246248	234131	220227	206336	182342	305061	272356	244329	201173	165367	276009	246923	202254	163343	-3653	-2594	-1081	2024
	22.2	*22.3*	*22.0*	*22.3*	*21.2*	*21.4*	*21.2*	*22.1*	*21.3*	*20.7*	*24.0*	*24.5*	*23.3*	*22.3*	[-1.3]	[-1.1]	[-0.5]	[1.2]
2.1 Mining and quarrying	24046	24018	23393	23108	21511	29377	27209	24588	22394	19702	20544	20554	18879	16818	6665	4034	3515	2884
	2.2	*2.3*	*2.3*	*2.5*	*2.5*	*2.1*	*2.1*	*2.2*	*2.4*	*2.5*	*1.8*	*2.0*	*2.2*	*2.3*	[32.4]	[19.6]	[18.6]	[17.1]
2.2 Manufacturing	195699	185180	173443	161101	140095	239363	215293	192070	155016	126697	222609	198348	159713	127646	-7316	-6278	-4697	-949
	17.6	*17.6*	*17.4*	*17.4*	*16.3*	*16.8*	*16.8*	*17.4*	*16.4*	*15.9*	*19.4*	*19.7*	*18.4*	*17.4*	[-3.3]	[-3.2]	[-2.9]	[-0.7]
2.2.1 registered	..	126133	116836	108200	93840	161674	144333	128175	103575	83077	143459	126084	101740	81229	874	2091	1835	1848
2.2.2 unregistered	..	59047	56607	52901	46255	78189	70960	63895	51441	43620	79150	72264	57973	46417	-8190	-8369	-6532	-2797
		5.6	*5.7*	*5.7*	*5.4*	*5.5*	*5.5*	*5.8*	*5.5*	*5.5*	*6.9*	*7.2*	*6.7*	*6.3*	[-10.3]	[-11.6]	[-11.3]	[-6.0]
2.3 Electricity, gas and	26503	24933	23391	22127	20736	35821	29854	27671	23763	18968	32856	28021	23662	18879	-3002	-350	101	89
water supply	*2.4*	*2.4*	*2.3*	*2.4*	*2.4*	*2.5*	*2.3*	*2.5*	*2.5*	*2.4*	*2.9*	*2.8*	*2.7*	*2.6*	[-9.1]	[-1.2]	[0.4]	[0.5]
3 Services	571675	537642	498572	463980	423200	729475	636812	546118	458193	391272	563062	482511	406701	345826	73750	63607	51492	45446
	51.5	*51.2*	*49.9*	*50.1*	*49.1*	*51.1*	*49.5*	*49.5*	*48.6*	*49.0*	*49.0*	*47.9*	*46.9*	*47.2*	[13.1]	[13.2]	[12.7]	[13.1]
3.1 Construction	50426	49313	47382	46054	42560	67663	62913	55463	46369	40433	68583	58416	47978	40699	-5670	-2953	-1609	-266
	4.5	*4.7*	*4.7*	*5.0*	*4.9*	*4.7*	*4.9*	*5.0*	*4.9*	*5.1*	*6.0*	*5.8*	*5.5*	*5.6*	[-8.3]	[-5.1]	[-3.4]	[-0.7]
3.2 Trade, hotels and	260693●	164355	155954	143858	127532	221810	197080	164866	135612	110995	167608	142808	118488	98024	29472	22058	17124	12971
restaurants	*23.5*	*15.7*	*15.6*	*15.5*	*14.8*	*15.5*	*15.3*	*14.9*	*14.4*	*13.9*	*14.6*	*14.2*	*13.7*	*13.4*	[17.6]	[15.4]	[14.5]	[13.2]
3.2.1 trade	..	155120	147305	136087	121546	208512	185317	155307	129067	105576	156577	133529	111208	92163	28740	21778	17859	13413
3.2.2 hotels and restaurants	..	9235	8649	7771	5986	13298	11763	9559	6545	5419	11031	9279	7280	5861	732	280	-735	-442
3.3 Transport, storage and	..	79819	74956	68788	63118	107903	92367	77793	68639	57990	88605	75365	66680	56096	3762	2428	1959	1894
communication		*7.6*	*7.5*	*7.4*	*7.3*	*7.6*	*7.2*	*7.1*	*7.3*	*7.3*	*7.7*	*7.5*	*7.7*	*7.7*	[4.2]	[3.2]	[2.9]	[3.4]
3.3.1 railways	..	11521	11189	10647	9846	14749	13256	12580	11203	9648	13186	12580	11203	9648	70	0	0	0
3.3.2 transport by other means	..	50144	47895	44513	41706	71921	61051	50158	44854	38314	58830	48521	43617	37066	2221	1637	1237	1248
3.3.3 storage	..	655	646	652	621	995	928	845	738	608	908	815	696	569	20	30	42	39
3.3.4 communication	..	17499	15226	12976	10945	20238	17132	14210	11844	9420	15681	13449	11164	8813	1451	761	680	607
3.4 Financing, insurance,	129045	119814	110575	102438	94609	155207	139111	123362	102655	89583	108007	94475	78468	67145	31104	28887	24187	22438
real estate and business services	*11.6*	*11.4*	*11.1*	*11.1*	*11.0*	*10.9*	*10.8*	*11.2*	*10.9*	*11.2*	*9.4*	*9.4*	*9.0*	*9.2*	[28.8]	[30.6]	[30.8]	[33.4]
3.4.1 banking and insurance	..	65814	58094	51343	45190	87956	77013	65885	50098	41665	75873	65314	52203	43570	1140	571	-2105	-1905
3.4.2 real estate, ownership of dwellings and business	..	54000	52481	51095	49419	67251	62098	57477	52557	47918	32134	29161	26265	23575	29964	28316	26292	24343
3.5 Community, social	131511	124341	109705	102842	95381	176892	145341	124634	104918	92271	130259	111447	95087	83862	15082	13187	9831	8409
and personal services	*11.8*	*11.9*	*11.0*	*11.1*	*11.1*	*12.4*	*11.3*	*11.3*	*11.1*	*11.5*	*11.3*	*11.1*	*11.0*	*11.4*	[11.6]	[11.8]	[10.3]	[10.0]
3.5.1 public administration and defence	..	58631	48736	46635	43620	83277	64642	56587	48009	43094	60648	52081	44580	39950	3994	4506	3429	3144
3.5.2 other services	..	65710	60969	56207	51761	93615	80699	68047	56909	49177	69611	59366	50507	43912	11088	8681	6402	5265
		6.3	*6.1*	*6.1*	*6.0*	*6.6*	*6.3*	*6.2*	*6.0*	*6.2*	*6.1*	*5.9*	*5.8*	*6.0*	[15.9]	[14.6]	[12.7]	[12.0]
4 Total gross domestic	1109983	1049191	998978	926412	861064	1426670	1285259	1103238	943408	799077	1149215	1006286	868019	732874	136044	96952	75389	66203
product at factor cost	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	[11.8]	[9.6]	[8.7]	[9.0]

● includes trade, hotels, transport and communication (items 3.2 and 3.3). Figures in italics are percentage distribution to the total GDP at factor cost.
Figures in square brackets are excess of the new series over the old series in per cent. .. not available.

Table 3: Gross Domestic Product at Factor Cost by Economic Activity (Sectorwise Growth Rates): New and Old Series

(Rs Crore)

Industry	New Series															Old Series			
	AT 1993-94 Prices					At Current Prices					At 1980-81 Prices					At Current Prices			
	1998-99	1997-98	1996-97	1995-96	1994-95	1997-98	1996-97	1995-96	1994-95	1993-94	1997-98	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1 Agriculture, forestry and fishing	292060	277418	280179	256096	255522	392134	376091	312791	284042	242438	76387	77564	71907	74133	70513	310144	276852	259064	223705
	5.3	*-1.0*	*9.4*	*0.2*	*5.4*	*4.3*	*20.2*	*10.1*	*17.2*		*-1.5*	*7.9*	*-3.0*	*5.1*	*3.7*	*12.0*	*6.9*	*15.8*	*15.9*
1.1 Agriculture		254148	257478	234842	235060	359586	347501	287697	261239	223148	.	72362	66863	69206	65762	287132	255613	239159	206322
		-1.3	*9.6*	*-0.1*	*5.3*	*3.5*	*20.8*	*10.1*	*17.1*			*8.2*	*-3.4*	*5.2*	*3.8*	*12.3*	*6.9*	*15.9*	*16.0*
1.2 Forestry and logging	..	11571	11183	10808	10652	14469	13535	12365	11704	10216	.	2930	2925	2932	2881	11293	11267	11154	9836
		3.5	*3.5*	*1.5*	*4.3*	*6.9*	*9.5*	*5.6*	*14.6*			*0.2*	*-0.2*	*1.8*	*-2.3*	*0.2*	*1.0*	*13.4*	*11.1*
1.3 Fishing	.	11699	11518	10446	9810	18079	15055	12729	11099	9074	..	2272	2119	1995	1870	11719	9972	8751	7547
		1.6	*10.3*	*6.5*	*8.1*	*20.1*	*18.3*	*14.7*	*22.3*			*7.2*	*6.2*	*6.7*	*8.0*	*17.5*	*14.0*	*16.0*	*20.2*
2 Industry	246248	234131	220227	206336	182342	305061	272356	244329	201173	165367	83985	79389	74471	65953	59318	276009	246923	202254	163343
	5.2	*6.3*	*6.7*	*13.2*	*10.3*	*12.0*	*11.5*	*21.5*	*21.7*		*5.8*	*6.6*	*12.9*	*11.2*	*7.6*	*11.8*	*22.1*	*23.8*	*15.2*
2.1 Mining and quarrying	24046	24018	23393	23108	21511	29377	27209	24588	22394	19702	5346	5138	5151	4751	4488	20544	20554	18879	16818
	0.1	*2.7*	*1.2*	*7.4*	*9.2*	*8.0*	*10.7*	*9.8*	*13.7*		*4.0*	*-0.3*	*8.4*	*5.9*	*1.7*	*0.0*	*8.9*	*12.3*	*15.3*
2.2 Manufacturing	195699	185180	173443	161101	140095	239863	215293	192070	155016	126697	70682	66785	62207	54570	48770	222609	198348	159713	[illegible]
	5.7	*6.8*	*7.7*	*15.0*	*10.6*	*11.4*	*12.1*	*23.9*	*22.4*		*5.8*	*7.4*	*14.0*	*11.9*	*8.4*	*12.2*	*24.2*	*25.1*	*15.0*
2.2.1 registered		126133	116836	108200	93840	161674	144333	128175	103575	83077	..	43157	39884	34940	31070	143459	126084	101740	81229
		8.0	*8.0*	*15.3*	*13.0*	*12.0*	*12.6*	*23.8*	*24.7*			*8.2*	*14.1*	*12.5*	*11.5*	*13.8*	*23.9*	*25.3*	*17.9*
2.2.2 unregistered		59047	56607	52901	46255	78189	70960	63895	51441	43620	..	23628	22323	19630	17700	79150	72264	57973	46417
		4.3	*7.0*	*14.4*	*6.0*	*10.2*	*11.1*	*24.2*	*17.9*			*5.8*	*13.7*	*10.9*	*3.3*	*9.5*	*24.7*	*24.9*	*10.1*
2.3 Electricity, gas and water supply	26503	24933	23391	22127	20736	35821	29854	27671	23763	18968	7957	7466	7113	6632	6060	32856	28021	23662	18879
	6.3	*6.6*	*5.7*	*6.7*	*9.3*	*20.0*	*7.9*	*16.4*	*25.3*		*6.6*	*5.0*	*7.3*	*9.4*	*6.3*	*17.3*	*18.4*	*25.3*	*17.2*
3 Services	571675	537642	498572	463980	423200	729475	636812	546118	458193	391272	151515	139892	129754	117614	109314	563062	482511	406701	345826
	6.3	*7.8*	*7.5*	*9.6*	*8.2*	*14.6*	*16.6*	*19.2*	*17.1*		*8.3*	*7.8*	*10.3*	*7.6*	*7.1*	*16.7*	*18.6*	*17.6*	*16.8*
3.1 Construction	50426	49313	47382	46054	42560	67663	62913	55463	46369	40433	13319	12851	12216	11134	10484	68583	58416	47978	40699
	2.3	*4.1*	*2.9*	*8.2*	*5.3*	*7.6*	*13.4*	*19.6*	*14.7*		*3.6*	*5.2*	*9.7*	*6.2*	*0.9*	*17.4*	*21.8*	*17.9*	*10.9*
3.2 Trade, hotels and restaurants	260693@	164355	155954	143858	127532	221810	197080	164866	135612	110995	63125	43313	39968	34647	30923	167608	142808	118488	98024
	58.6	*5.4*	*8.4*	*12.8*	*14.9*	*12.5*	*19.5*	*21.6*	*22.2*		*45.7*	*8.4*	*15.4*	*12.0*	*7.9*	*17.4*	*20.5*	*20.9*	*18.4*
3.2.1 trade	..	155120	147305	136087	121546	208512	185317	155307	129067	105576	..	40286	37188	32370	28950	156577	133529	111208	92163
		5.3	*8.2*	*12.0*	*15.1*	*12.5*	*19.3*	*20.3*	*22.3*			*8.3*	*14.9*	*11.8*	*7.8*	*17.3*	*20.1*	*20.7*	*18.3*
3.2.2 hotels and restaurants	..	9235	8649	7771	5986	13298	11763	9559	6545	5419	..	3027	2780	2277	1973	11031	9279	7280	5861
		6.8	*11.3*	*29.8*	*10.5*	*13.0*	*23.1*	*46.1*	*20.8*			*8.9*	*22.1*	*15.4*	*10.4*	*18.9*	*27.5*	*24.2*	*20.5*
3.3 Transport, storage and communication	..	79819	74956	68788	63118	107903	92367	77793	68639	57990	.	16664	15264	14091	13065	88605	75365	66680	56096
		6.5	*9.0*	*9.0*	*8.8*	*16.8*	*18.7*	*13.3*	*18.4*			*9.2*	*8.3*	*7.9*	*5.6*	*17.6*	*13.0*	*18.9*	*14.7*
3.3.1 railways	..	11521	11189	10647	9846	14749	13256	12580	11203	9648	..	1964	1906	1769	1746	13186	12580	11203	9648
		3.0	*5.1*	*8.1*	*2.1*	*11.3*	*5.4*	*12.3*	*16.1*			*3.0*	*7.7*	*1.3*	*-0.7*	*4.8*	*12.3*	*16.1*	*14.2*
3.3.2 transport by other means	..	50144	47895	44513	41706	71921	61051	50158	44854	38314	..	11407	10528	9906	9220	58830	48521	43617	37066
		4.7	*7.6*	*6.7*	*8.9*	*17.8*	*21.7*	*11.8*	*17.1*			*8.3*	*6.3*	*7.4*	*5.9*	*21.2*	*11.2*	*17.7*	*12.9*
3.3.3 storage	..	655	646	652	621	995	928	845	738	608	..	203	199	194	185	908	815	696	569
		1.4	*-0.9*	*5.0*	*2.1*	*7.2*	*9.8*	*14.5*	*21.4*			*2.0*	*2.6*	*4.9*	*2.8*	*11.4*	*17.1*	*22.3*	*8.8*
3.3.4 communication	..	17499	15226	12976	10945	20238	17132	14210	11844	9420	..	3090	2631	2222	1914	15681	13449	11164	8813
		14.9	*17.3*	*18.6*	*16.2*	*18.1*	*20.6*	*20.0*	*25.7*			*17.4*	*18.4*	*16.1*	*11.0*	*16.6*	*20.5*	*26.7*	*24.4*
3.4 Financing, insurance, real estate and business services	129045	119814	110575	102438	94609	155207	139111	123362	102655	89583	39551	36045	33152	30232	28210	108007	94475	78468	67143
	7.7	*8.4*	*7.9*	*8.3*	*5.6*	*11.6*	*12.8*	*20.2*	*14.6*		*9.7*	*8.7*	*9.7*	*7.2*	*12.5*	*14.3*	*20.4*	*16.9*	*27.6*
3.4.1 banking and insurance	.	65814	58094	51343	45190	87956	77013	65885	50098	41665	.	23080	20634	18182	16610	75873	65314	52203	43570
		13.3	*13.1*	*13.6*	*8.5*	*14.2*	*16.9*	*31.5*	*20.2*			*11.9*	*13.5*	*9.5*	*19.8*	*16.2*	*25.1*	*19.8*	*39.5*
3.4.2 real estate, ownership of dwellings and business	..	54000	52481	51095	49419	67251	62098	57477	52557	47918	..	12965	12518	12050	11600	32134	29161	26265	23575
		2.9	*2.7*	*3.4*	*3.1*	*8.3*	*8.0*	*9.4*	*9.7*			*3.6*	*3.9*	*3.9*	*3.4*	*10.2*	*11.0*	*11.4*	*10.1*
3.5 Community, social and personal services	131511	124341	109705	102842	95381	176892	145341	124634	104918	92271	35520	31019	29154	27510	26632	130259	111447	95087	83862
	5.8	*13.3*	*6.7*	*7.8*	*3.4*	*21.7*	*16.6*	*18.8*	*13.7*		*14.5*	*6.4*	*6.0*	*3.3*	*3.9*	*16.9*	*17.2*	*13.4*	*11.8*
3.5.1 public administration and defence	..	58631	48736	46635	43620	83277	64642	56587	48009	43094	.	14312	13422	12668	12483	60648	52081	44580	39950
		20.3	*4.5*	*6.9*	*1.2*	*28.8*	*14.2*	*17.9*	*11.4*			*6.6*	*6.0*	*1.5*	*2.6*	*16.4*	*16.8*	*11.6*	*10.2*
3.5.2 other services	..	65710	60969	56207	51761	93615	80699	68047	56909	49177	.	16707	15732	14842	14149	69611	59366	50507	43912
		7.8	*8.5*	*8.6*	*5.3*	*16.0*	*18.6*	*19.6*	*15.7*			*6.2*	*6.0*	*4.9*	*5.2*	*17.3*	*17.5*	*15.0*	*13.4*
4 Total gross domestic product at factor cost	1109983	1049191	998978	926412	861064	1426670	1285259	1103238	943408	799077	311887	296845	276132	257700	239145	1149215	1006286	868019	732874
	5.8	*5.0*	*7.8*	*7.6*	*7.8*	*11.0*	*16.5*	*16.9*	*18.1*		*5.1*	*7.5*	*7.2*	*7.8*	*6.2*	*14.2*	*15.9*	*18.4*	[illegible]

@ includes trade, hotels, transport and communication (items 3.2 and 3.3). Figures in italics are percentage variation over the previous year. .. not available

Table 4: Net Domestic Product at Factor Cost by Economic Activity (Sectorwise Percentage Distribution): New and Old Series

(Rs Crore)

Industry	New Series									Old Series				Excess of New Series over Old Series			
	At 1993-94 Prices				At Current Prices					At Current Prices				At Current Prices			
	1997-98	1996-97	1995-96	1994-95	1997-98	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1 Agriculture, forestry	262703	266046	242549	242566	371603	357953	296473	269779	229908	289814	259088	243840	210476	68139	37385	25939	19432
and fishing	*28.0*	*29.7*	*29.2*	*31.4*	*29.1*	*31.0*	*30.0*	*31.9*	*32.1*	*28.4*	*29.0*	*31.6*	*32.3*	[23.5]	[14.4]	[10.6]	[9.2]
1.1 Agriculture	241075	244870	222711	223418	341225	330946	273119	248444	211841	268729	239582	225396	194316	62217	33537	23048	17525
	25.7	*27.4*	*26.8*	*28.9*	*26.7*	*28.7*	*27.6*	*29.4*	*29.6*	*26.3*	*26.8*	*29.2*	*29.8*	[23.2]	[14.0]	[10.2]	[9.0]
1.2 Forestry and logging	11242	10863	10499	10355	13961	13087	11979	11373	9928	10861	10888	10830	9548	2226	1091	543	380
1.3 Fishing	10386	10313	9339	8793	16417	13560	11375	9962	8139	10224	8618	7614	6612	3336	2757	2348	1527
2 Industry	173765	171010	161740	141899	234025	210474	191573	157066	128378	219844	197803	160450	128268	-9370	-6230	-3384	110
	18.5	*19.1*	*19.5*	*18.4*	*18.3*	*18.2*	*19.4*	*18.6*	*17.9*	*21.5*	*22.1*	*20.8*	*19.7*	[-4.3]	[-3.1]	[-2.1]	[0.1]
2.1 Mining and quarrying	11765	17124	16925	15633	21000	19265	17326	16004	14546	12548	13288	12534	11670	6717	4038	3470	2876
	1.3	*1.9*	*2.0*	*2.0*	*1.6*	*1.7*	*1.8*	*1.9*	*2.0*	*1.2*	*1.5*	*1.6*	*1.8*	[53.5]	[30.4]	[27.7]	[24.6]
2.2 Manufacturing	149759	142594	134232	116496	194676	177049	160385	129320	105214	189788	170117	136073	108006	-12739	-9732	-6753	-2792
	16.0	*15.9*	*16.2*	*15.1*	*15.2*	*15.3*	*16.2*	*15.3*	*14.7*	*18.6*	*19.0*	*17.6*	*16.6*	[-6.7]	[-5.7]	[-5.0]	[-2.6]
2.2.1 registered	97873	92652	87524	75988	125757	114364	103725	84072	67009	118837	105078	84312	67004	-4473	-1353	-240	5
2.2.2 unregistered	51886	49942	46708	40508	68919	62685	56660	45248	38205	70951	65039	51761	41002	-8266	-8379	-6513	-2797
	5.5	*5.6*	*5.6*	*5.2*	*5.4*	*5.4*	*5.7*	*5.3*	*5.3*	*6.9*	*7.3*	*6.7*	*6.3*	[-11.7]	[-12.9]	[-12.6]	[-6.8]
2.3 Electricity, gas and	12241	11292	10583	9770	18349	14160	13862	11742	8618	17508	14398	11843	8592	-3348	-536	-101	26
water supply	*1.3*	*1.3*	*1.3*	*1.3*	*1.4*	*1.2*	*1.4*	*1.4*	*1.2*	*1.7*	*1.6*	*1.5*	*1.3*	[-19.1]	[-3.7]	[-0.9]	[0.3]
3 Services	494451	457904	425802	387531	672978	585910	501083	419563	357832	512375	437809	368390	312578	73535	63274	51173	45254
	52.8	*51.2*	*51.3*	*50.2*	*52.6*	*50.8*	*50.7*	*49.6*	*50.0*	*50.1*	*48.9*	*47.7*	*48.0*	[14.4]	[14.5]	[13.9]	[14.5]
3.1 Construction	46824	45074	43931	40592	64505	60057	52960	44218	38531	65826	55929	45830	38800	-5769	-2969	-1612	-269
	5.0	*5.0*	*5.3*	*5.3*	*5.0*	*5.2*	*5.4*	*5.2*	*5.4*	*6.4*	*6.3*	*5.9*	*6.0*	[-8.8]	[-5.3]	[-3.5]	[-0.7]
3.2 Trade, hotels and	160679	152561	140729	124639	217110	192861	161162	132455	108305	163368	139084	115327	95334	29493	22078	17128	12971
restaurants	*17.1*	*17.0*	*17.0*	*16.1*	*17.0*	*16.7*	*16.3*	*15.6*	*15.1*	*16.0*	*15.5*	*14.9*	*14.6*	[18.1]	[15.9]	[14.9]	[13.6]
3.2.1 trade	152713	145061	133998	119599	205437	182529	152834	126942	103737	153783	131049	109077	90324	28746	21785	17865	13413
3.2.2 hotels and restaurants	7966	7500	6731	5040	11673	10332	8328	5513	4568	9585	8035	6250	5010	747	293	-737	-442
3.3. Transport, storage and	61869	58162	53157	48569	85173	71944	59790	53032	44426	68305	57434	51134	42542	3639	2356	1898	1884
communication	*6.6*	*6.5*	*6.4*	*6.3*	*6.7*	*6.2*	*6.0*	*6.3*	*6.2*	*6.7*	*6.4*	*6.6*	*6.5*	[5.3]	[4.1]	[3.7]	[4.4]
3.3.1 railways	8310	8048	7647	6926	10735	9464	9135	8077	6808	9459	9133	8075	6808	5	2	2	0
3.3.2 transport by other means	38522	37078	34470	32387	57493	48088	38680	34898	29619	45950	37104	33703	28381	2138	1576	1195	1238
3.3.3 storage	599	592	599	570	921	859	781	682	558	839	751	640	519	20	30	42	39
3.3.4 communication	14438	12444	10441	8686	16024	13533	11194	9375	7441	12057	10446	8716	6834	1476	748	659	607
3.4 Financing, insurance, real	107761	99108	91558	84462	139172	124521	110288	91637	80107	92950	81237	67333	57580	31571	29051	24304	22527
estate and business services	*11.5*	*11.1*	*11.0*	*10.9*	*10.9*	*10.8*	*11.2*	*10.8*	*11.2*	*9.1*	*9.1*	*8.7*	*8.8*	[34.0]	[35.8]	[36.1]	[39.1]
3.4.1 banking and insurance	62452	55134	48788	43184	83704	73371	62891	47921	40128	72124	62430	50076	42044	1247	461	-2155	-1916
3.4.2 real estate, ownership of	45309	43974	42770	41278	55468	51150	47397	43716	39979	20826	18807	17257	15536	30324	28590	26459	24443
dwellings and business	*4.8*	*4.9*	*5.2*	*5.3*	*4.3*	*4.4*	*4.8*	*5.2*	*5.6*	*2.0*	*2.1*	*2.2*	*2.4*	145.6	152.0	153.3	157.3
3.5 Community, social and	117318	102999	96427	89269	167018	136527	116883	98221	86463	121926	104125	88766	78322	14601	12758	9455	8141
personal services	*12.5*	*11.5*	*11.6*	*11.6*	*13.1*	*11.8*	*11.8*	*11.6*	*12.1*	*11.9*	*11.6*	*11.5*	*12.0*	[12.0]	[12.3]	[10.7]	[10.4]
3.5.1 public administration	54018	44296	42349	39515	76630	58719	51378	43498	39173	54777	46915	40116	36028	3942	4463	3382	3145
and defence	*5.8*	*4.9*	*5.1*	*5.1*	*6.0*	*5.1*	*5.2*	*5.1*	*5.5*	*5.4*	*5.2*	*5.2*	*5.5*	[7.5]	[9.5]	[8.4]	[8.7]
3.5.2 other services	63300	58703	54078	49754	90388	77808	65505	54723	47290	67149	57210	48650	42294	10659	8295	6073	4996
	6.8	*6.6*	*6.5*	*6.4*	*7.1*	*6.7*	*6.6*	*6.5*	*6.6*	*6.6*	*6.4*	*6.3*	*6.5*	[15.9]	[14.5]	[12.5]	[11.8]
4 Total net domestic product	936919	894960	830091	771996	1278606	1153977	989129	846408	716118	1022033	894700	772680	651322	131944	94429	73728	64796
at factor cost	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	[12.9]	[10.6]	[9.5]	[9.9]

Figures in italics are percentage distribution to the total NDP at factor cost.

Table 5: Private Final Consumption Expenditure by Object in Domestic Market (Percentage Distribution)

(Rs Crore)

Item	New Series									Old Series				Excess of New Series over Old Series			
	At 1993-94 Prices				At Current Prices					At Current Prices				At Current Prices			
	1997-98	1996-97	1995-96	1994-95	1997-98	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1 Food, beverages and tobacco	381119	377657	352401	340105	527201	499486	416308	371077	318065	392432	340813	309697	271474	107054	75495	61380	46591
	53.1	*54.6*	*54.4*	*56.0*	*54.9*	*56.4*	*55.0*	*56.2*	*56.1*	*53.4*	*52.5*	*53.8*	*54.4*	[27.3]	[22.2]	[19.8]	[17.2]
1.1 food	352499	351948	329022	314800	485487	465445	387808	343228	298182	348128	303420	280609	246521	117317	84388	62619	51661
	49.1	*50.9*	*50.8*	*51.8*	*50.6*	*52.5*	*51.2*	*52.0*	*52.6*	*47.4*	*46.7*	*48.8*	*49.4*	[33.7]	[27.8]	[22.3]	[21.0]
1.1.1 cereals and bread	83293	92169	85574	85443	126700	132034	103671	93669	82264	106665	90616	81047	74482	25369	13055	12622	7782
	11.6	*13.3*	*13.2*	*14.1*	*13.2*	*14.9*	*13.7*	*14.2*	*14.5*	*14.5*	*14.0*	*14.1*	*14.9*	[23.8]	[14.4]	[15.6]	[10.4]
1.1.2 pulses	11325	12367	10693	12026	18386	18775	13602	12462	11615	13252	11569	11357	11160	5523	2033	1105	455
	1.6	*1.8*	*1.7*	*2.0*	*1.9*	*2.1*	*1.8*	*1.9*	*2.0*	*1.8*	*1.8*	*2.0*	*2.2*	[41.7]	[17.6]	[9.7]	[4.1]
1.1.3 sugar and gur	21986	22237	22198	23193	26356	24950	23216	24587	21815	25794	21375	24238	21389	-844	1841	349	426
	3.1	*3.2*	*3.4*	*3.8*	*2.7*	*2.8*	*3.1*	*3.7*	*3.8*	*3.5*	*3.3*	*4.2*	*4.3*	[-3.3]	[8.6]	[1.4]	[2.0]
1.1.4 oil and oilseeds	27493	28373	25539	23136	33256	33941	29113	24983	24144	32691	27848	24763	22342	1250	1265	220	1802
	3.8	*4.1*	*3.9*	*3.8*	*3.5*	*3.8*	*3.8*	*3.8*	*4.3*	*4.4*	*4.3*	*4.3*	*4.5*	[3.8]	[4.5]	[0.9]	[8.1]
1.1.5 fruits and vegetables	86401	78045	78075	74389	114964	107581	91623	80053	62338	43757	37330	39101	30993	63824	54293	40952	31345
	12.0	*11.3*	*12.1*	*12.2*	*12.0*	*12.1*	*12.1*	*12.1*	*11.0*	*6.0*	*5.8*	*6.8*	*6.2*	[145.9]	[145.4]	[104.7]	[101.1]
1.1.6 potatoes and other tubers	8250	8068	6536	6132	12227	11768	9051	6621	6145	11170	8967	6569	6088	598	84	52	57
	1.1	*1.2*	*1.0*	*1.0*	*1.3*	*1.3*	*1.2*	*1.0*	*1.1*	*1.5*	*1.4*	*1.1*	*1.2*	[5.4]	[0.9]	[0.8]	[0.9]
1.1.7 milk and milk products	64820	62393	56491	49426	79599	71128	63326	54320	47502	62237	59046	52755	45788	8891	4280	1565	1714
	9.0	*9.0*	*8.7*	*8.1*	*8.3*	*8.0*	*8.4*	*8.2*	*8.4*	*8.5*	*9.1*	*9.2*	*9.2*	[14.3]	[7.2]	[3.0]	[3.7]
1.1.8 meat, egg and fish	26228	26332	24373	22907	39183	36503	30857	26894	22946	31974	29783	26760	22107	4529	1074	134	839
	3.7	*3.8*	*3.8*	*3.8*	*4.1*	*4.1*	*4.1*	*4.1*	*4.0*	*4.4*	*4.6*	*4.7*	*4.4*	[14.2]	[3.6]	[0.5]	[3.8]
1.1.9 coffee, tea and cocoa	6440	6288	4814	5148	12874	8771	6731	6166	5787	8565	6559	5387	4596	206	172	779	1191
	0.9	*0.9*	*0.7*	*0.8*	*1.3*	*1.0*	*0.9*	*0.9*	*1.0*	*1.2*	*1.0*	*0.9*	*0.9*	[2.4]	[2.6]	[14.5]	[25.9]
1.1.10 spices and other food	16263	15676	14729	13000	21942	19994	16618	13473	13626	12023	10327	8632	7576	7971	6291	4841	6050
	2.3	*2.3*	*2.3*	*2.1*	*2.3*	*2.3*	*2.2*	*2.0*	*2.4*	*1.6*	*1.6*	*1.5*	*1.5*	[66.3]	[60.9]	[56.1]	[79.9]
1.2 beverages, pan and intoxicants	5727	5533	6195	6016	8554	7620	7239	6609	5929	11729	10834	9278	8144	-4109	-3595	-2669	-2215
	0.8	*0.8*	*1.0*	*1.0*	*0.9*	*0.9*	*1.0*	*1.0*	*1.0*	*1.6*	*1.7*	*1.6*	*1.6*	[-35.0]	[-33.2]	[-28.8]	[-27.2]
1.3 tobacco and its products	13648	11497	9415	13302	19852	14628	11706	14689	8534	21592	17347	12555	10968	-6964	-5641	2134	-2434
	1.9	*1.7*	*1.5*	*2.2*	*2.1*	*1.7*	*1.5*	*2.2*	*1.5*	*2.9*	*2.7*	*2.2*	*2.2*	[-32.3]	[-32.5]	[17.0]	[-22.2]
1.4 hotels and restaurants	9245	8679	7769	5987	13308	11793	9555	6551	5420	10983	9212	7255	5841	810	343	-704	-421
	1.3	*1.3*	*1.2*	*1.0*	*1.4*	*1.3*	*1.3*	*1.0*	*1.0*	*1.5*	*1.4*	*1.3*	*1.2*	[7.4]	[3.7]	[-9.7]	[-7.2]
2 Clothing and footwear	31799	33922	34512	26377	43485	45038	44525	29917	25746	81536	74045	60674	52510	-36498	-29520	-30757	-26764
	4.4	*4.9*	*5.3*	*4.3*	*4.5*	*5.1*	*5.9*	*4.5*	*4.5*	*11.1*	*11.4*	*10.5*	*10.5*	[-44.8]	[-39.9]	[-50.7]	[-51.0]
2.1 clothing	27526	29475	30451	22049	38247	39884	39879	25303	21403	76707	69453	56035	48359	-36823	-29574	-30732	-26956
	3.8	*4.3*	*4.7*	*3.6*	*4.0*	*4.5*	*5.3*	*3.8*	*3.8*	*10.4*	*10.7*	*9.7*	*9.7*	[-48.0]	[-42.6]	[-54.8]	[-55.7]
2.2 footwear	4273	4447	4061	4328	5238	5154	4646	4614	4343	4829	4592	4639	4151	325	54	-25	192
	0.6	*0.6*	*0.6*	*0.7*	*0.5*	*0.6*	*0.6*	*0.7*	*0.8*	*0.7*	*0.7*	*0.8*	*0.8*	[6.7]	[1.2]	[-0.5]	[4.6]
3 Gross rent, fuel and power	78759	76471	73904	71380	92378	85970	79749	75061	68880	62199	58045	53704	48421	23771	21704	21357	20459
	11.0	*11.1*	*11.4*	*11.8*	*9.6*	*9.7*	*10.5*	*11.4*	*12.1*	*8.5*	*8.9*	*9.3*	*9.7*	[38.2]	[37.4]	[39.8]	[42.3]
3.1 gross rent and water charges	53685	52060	50498	48883	60753	57254	54004	50648	47483	36920	33775	30565	27601	20334	20229	20083	19882
	7.5	*7.5*	*7.8*	*8.0*	*6.3*	*6.5*	*7.1*	*7.7*	*8.4*	*5.0*	*5.2*	*5.3*	*5.5*	[55.1]	[59.9]	[65.7]	[72.0]
3.2 fuel and power	25074	24411	23406	22497	31625	28716	25745	24413	21397	25279	24270	23139	20820	3437	1475	1274	577
	3.5	*3.5*	*3.6*	*3.7*	*3.3*	*3.2*	*3.4*	*3.7*	*3.8*	*3.4*	*3.7*	*4.0*	*4.2*	[13.6]	[6.1]	[5.5]	[2.8]
4 Furniture, furnishings, appliances and services	25535	22641	21798	18358	34425	28529	25009	19777	16940	22829	21237	17136	14849	5700	3772	2641	2091
	3.6	*3.3*	*3.4*	*3.0*	*3.6*	*3.2*	*3.3*	*3.0*	*3.0*	*3.1*	*3.3*	*3.0*	*3.0*	[25.0]	[17.8]	[15.4]	[14.1]
4.1 furniture, furnishings and household equipments etc.	21164	18432	17041	14715	26402	22189	19979	15770	13521	19958	18714	15133	13110	2231	1265	637	411
	2.9	*2.7*	*2.6*	*2.4*	*2.7*	*2.5*	*2.6*	*2.4*	*2.4*	*2.7*	*2.9*	*2.6*	*2.6*	[11.2]	[6.8]	[4.2]	[3.1]
4.2 services	4371	4209	4757	3643	8023	6340	5030	4007	3419	2871	2523	2003	1739	3469	2507	2004	1680
	0.6	*0.6*	*0.7*	*0.6*	*0.8*	*0.7*	*0.7*	*0.6*	*0.6*	*0.4*	*0.4*	*0.3*	*0.3*	[120.8]	[99.4]	[100.0]	[96.6]
5 Medical care and health services	29597	26679	24049	21681	41609	34618	30207	25497	19543	16201	14222	13092	10984	18417	15985	12405	8559
	4.1	*3.9*	*3.7*	*3.6*	*4.3*	*3.9*	*4.0*	*3.9*	*3.4*	*2.2*	*2.2*	*2.3*	*2.2*	[113.7]	[112.4]	[94.8]	[77.9]
6 Transport and communication	99419	86762	78558	70951	126732	108612	87516	76024	64376	95135	82703	72047	60940	13477	4813	3977	3436
	13.8	*12.6*	*12.1*	*11.7*	*13.2*	*12.3*	*11.6*	*11.5*	*11.3*	*12.9*	*12.7*	*12.5*	*12.2*	[14.2]	[5.8]	[5.5]	[5.6]

Table 5: Private Final Consumption Expenditure by Object in Domestic Market (Percentage Distribution) (*Contd*)

(Rs Crore)

Item	New Series									Old Series				Excess of New Series over Old Series			
	At 1993-94 Prices				At Current Prices					At Current Prices				At Current Prices)			
	1997-98	1996-97	1995-96	1994-95	1997-98	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
6.1 personal transport equipment	4411	3962	3794	2994	5645	4924	4392	3183	2284	5994	4671	3348	2391	-1070	-279	-165	-107
	0.6	*0.6*	*0.6*	*0.5*	*0.6*	*0.6*	*0.6*	*0.5*	*0.4*	*0.8*	*0.7*	*0.6*	*0.5*	[-17.9]	[-6.0]	[-4.9]	[-4.5]
6.2 operation of personal transport equipment	30474	30123	27298	24578	42622	39040	30280	26384	22290	29789	24821	22002	18794	9251	5459	4382	3496
	4.2	*4.4*	*4.2*	*4.0*	*4.4*	*4.4*	*4.0*	*4.0*	*3.9*	*4.1*	*3.8*	*3.8*	*3.8*	[31.1]	[22.0]	[19.9]	[18.6]
6.3 purchase of transport services	57319	46451	42210	39009	70089	57546	47005	41596	35847	52528	47448	41904	35861	5018	-443	-308	-14
	8.0	*6.7*	*6.5*	*6.4*	*7.3*	*6.5*	*6.2*	*6.3*	*6.3*	*7.1*	*7.3*	*7.3*	*7.2*	[9.6]	[-0.9]	[-0.7]	[-0.0]
6.4 communication	7215	6226	5256	4370	8376	7102	5839	4861	3955	6824	5763	4793	3894	278	76	68	61
	1.0	*0.9*	*0.8*	*0.7*	*0.9*	*0.8*	*0.8*	*0.7*	*0.7*	*0.9*	*0.9*	*0.8*	*0.8*	[4.1]	[1.3]	[1.4]	[1.6]
7 Recreation, education and cultural services	24499	22656	21093	19346	31681	28134	24710	20727	17554	27964	24531	20149	16690	170	179	578	864
	3.4	*3.3*	*3.3*	*3.2*	*3.3*	*3.2*	*3.3*	*3.1*	*3.1*	*3.8*	*3.8*	*3.5*	*3.3*	[0.6]	[0.7]	[2.9]	[5.2]
7.1 education	12951	11973	11116	10237	18518	15860	13466	11278	10092	15720	12998	11007	9843	140	468	271	249
	1.8	*1.7*	*1.7*	*1.7*	*1.9*	*1.8*	*1.8*	*1.7*	*1.8*	*2.1*	*2.0*	*1.9*	*2.0*	[0.9]	[3.6]	[2.5]	[2.5]
7.2 others	11548	10683	9977	9109	13163	12274	11244	9449	7462	12244	11533	9142	6847	30	-289	307	615
	1.6	*1.5*	*1.5*	*1.5*	*1.4*	*1.4*	*1.5*	*1.4*	*1.3*	*1.7*	*1.8*	*1.6*	*1.4*	[0.2]	[-2.5]	[3.4]	[9.0]
8 Miscellaneous goods and services	47542	44394	41056	39150	62890	55843	49360	42380	36135	36570	33498	28836	23059	19273	15862	13544	13076
	6.6	*6.4*	*6.3*	*6.4*	*6.5*	*6.3*	*6.5*	*6.4*	*6.4*	*5.0*	*5.2*	*5.0*	*4.6*	[52.7]	[47.4]	[47.0]	[56.7]
9 Private final consumption expenditure in domestic market	718269	691182	647371	607348	960401	886230	757384	660460	567239	734866	649094	575335	498927	151364	108290	85125	68312
	100.0	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	[20.6]	[16.7]	[14.8]	[13.7]

Figures in italics are percentage distribution to the total of PFCE in the domestic market. Figures in square brackets are excess of new series over old series in per cent

Table 6: Domestic Saving at Current Prices (Percentage of GDP)

(Rs crore)

Item	New Series										Old Series								Excess of New Series over Old Series							
	1997-98		1996-97		1995-96		1994-95		1993-94		1996-97		1995-96		1994-95		1993-94		1996-97		1995-96		1994-95		1993-94	
(1)	(2)		(3)		(4)		(5)		(6)		(7)		(8)		(9)		(10)		(11)		(12)		(13)		(14)	
1 Gross domestic saving	361518	*23.1*	344391	*24.4*	293560	*24.1*	251522	*24.2*	191588	*21.8*	333816	*26.1*	283003	*25.3*	247087	*25.6*	183710	*22.7*	10575	[3.2]	10557	[3.7]	4435	[1.8]	7878	[4.3]
1.1 household sector	286231	*18.3*	264655	*18.8*	212402	*17.4*	200632	*19.3*	157344	*17.9*	259543	*20.3*	210417	*18.8*	195403	*20.3*	149673	*18.5*	5112	[2.0]	1985	[0.9]	5229	[2.7]	7671	[5.1]
1.1.1 financial saving	161176	*10.3*	137469	*9.8*	99405	*8.2*	120734	*11.6*	94738	*10.8*	136644	*10.7*	95715	*8.6*	108893	*11.3*	94517	*11.7*	825	[0.6]	3690	[3.9]	11841	[10.9]	221	[0.2]
1.1.2 savings in physical assets	125055	*8.0*	127186	*9.0*	112997	*9.3*	79898	*7.7*	62606	*7.1*	122899	*9.6*	114702	*10.3*	86510	*9.0*	55156	*6.8*	4287	[3.5]	-1705	[1.5]	-6612	[-7.6]	7450	[13.5]
1.2 private corporate sector	58887	*3.8*	58468	*4.1*	58263	*4.8*	35028	*3.4*	29667	*3.4*	49545	*3.9*	47391	*4.2*	34193	*3.5*	29480	*3.6*	8923	[18.0]	10872	[22.9]	835	[2.4]	187	[0.6]
1.2.1 joint stock companies	57142	*3.7*	56729	*4.0*	56178	*4.6*	33121	*3.2*	28437	*3.2*	48336	*3.8*	46182	*4.1*	32984	*3.4*	28411	*3.5*	8393	[17.4]	9996	[21.6]	137	[0.4]	26	[0.1]
1.2.2 co-operative banks and societies	1745	*0.1*	1739	*0.1*	2085	*0.2*	1907	*0.2*	1230	*0.1*	1209	*0.1*	1209	*0.1*	1209	*0.1*	1069	*0.1*	530	[43.8]	876	[72.5]	698	[57.7]	161	[15.1]
1.3 public sector	16400	*1.0*	21268	*1.5*	22895	*1.9*	15862	*1.5*	4577	*0.5*	24728	*1.9*	25195	*2.3*	17491	*1.8*	4557	*0.6*	-3460	[-14.0]	-2300	[-9.1]	-1629	[-9.3]	20	[0.4]
1.3.1 public authorities	-33174	*-2.1*	-22918	*-1.6*	-14942	*-1.2*	-16897	*-1.6*	-19427	*-2.2*	-16569	*-1.3*	-12252	*-1.1*	-15199	*-1.6*	-19447	*-2.4*	-6349	[38.3]	-2690	[22.0]	-1698	[11.2]	20	[-0.1]
1.3.1.1 government administration	-42269	*-2.7*	-33318	*-2.4*	-24873	*-2.0*	-26898	*-2.6*	-26850	*-3.1*	-27498	*-2.2*	-22774	*-2.0*	-25154	*-2.6*	-26870	*-3.3*	-5820	[21.2]	-2099	[9.2]	-1744	[6.9]	20	[-0.1]
1.3.1.2 departmental enterprises	9095	*0.6*	10400	*0.7*	9931	*0.8*	10001	*1.0*	7423	*0.8*	10929	*0.9*	10522	*0.9*	9955	*1.0*	7423	*0.9*	-529	[-4.8]	-591	[-5.6]	46	[0.5]	0	
1.3.2 non-departmental enterprises	49574	*3.2*	44186	*3.1*	37837	*3.1*	32759	*3.2*	24004	*2.7*	41297	*3.2*	37447	*3.3*	32690	*3.4*	24004	*3.0*	2889	[7.0]	390	[1.0]	69	[0.2]	0	
2 Less consumption of fixed capital	148064	*9.5*	131282	*9.3*	114109	*9.4*	97000	*9.3*	82959	*9.5*	127182	*10.0*	111586	*10.0*	95339	*9.9*	81552	*10.1*	4100	[3.2]	2523	[2.3]	1661	[1.7]	1407	[1.7]
2.1 household sector	49676	*3.2*	44647	*3.2*	39358	*3.2*	33721	*3.2*	29556	*3.4*	41733	*3.3*	37464	*3.3*	32585	*3.4*	28329	*3.5*	2914	[7.0]	1894	[5.1]	1136	[3.5]	1227	[4.3]
2.2 private corporate sector	38770	*2.5*	32454	*2.3*	26409	*2.2*	20895	*2.0*	16836	*1.9*	31972	*2.5*	26198	*2.3*	20805	*2.2*	16769	*2.1*	482	[1.5]	211	[0.8]	90	[0.4]	67	[0.4]
2.2 public sector	59618	*3.8*	54181	*3.8*	48342	*4.0*	42384	*4.1*	36567	*4.2*	53477	*4.2*	47924	*4.3*	41949	*4.4*	36454	*4.5*	704	[1.3]	418	[0.9]	435	[1.0]	113	[0.3]
3 Net domestic saving	213454	*13.7*	213109	*15.1*	179451	*14.7*	154522	*14.9*	108629	*12.4*	206634	*16.2*	171417	*15.3*	151748	*15.7*	102158	*12.6*	6475	[3.1]	8034	[4.7]	2774	[1.8]	6471	[6.3]
3.1 household sector	236555	*15.1*	220008	*15.6*	173044	*14.2*	166911	*16.1*	127788	*14.6*	217810	*17.1*	172953	*15.5*	162818	*16.9*	121344	*15.0*	2198	[1.0]	91	[0.1]	4093	[2.5]	6444	[5.3]
3.2 private corporate sector	20117	*1.3*	26014	*1.8*	31854	*2.6*	14133	*1.4*	12831	*1.5*	17573	*1.4*	21193	*1.9*	13388	*1.4*	12711	*1.6*	8441	[48.0]	10661	[50.3]	745	[5.6]	120	[0.9]
3.3 public sector	-43218	*-2.8*	-32913	*-2.3*	-25447	*-2.1*	-26522	*-2.6*	-31990	*-3.6*	-28749	*-2.3*	-22729	*-2.0*	-24458	*-2.5*	-31897	*-3.9*	-4164	[14.5]	-2718	[12.0]	-2064	[8.4]	-93	[0.3]
4 Net capital inflow	25859	*1.7*	17296	*1.2*	20780	*1.7*	11893	*1.1*	4791	*0.5*	14669	*1.1*	20780	*1.9*	11891	*1.2*	4791	*0.6*	2627	[17.9]	0		2		0	
5 Finances for gross capital formation	387377	*24.8*	361687	*25.7*	314340	*25.8*	263415	*25.4*	196379	*22.4*	348485	*27.3*	303783	*27.1*	258978	*26.9*	188501	*23.3*	13202	[3.8]	10557	[3.5]	4437	[1.7]	7878	[4.2]
GDP at current market prices	1563552	*100.0*	1409849	*100.0*	1217963	*100.0*	1037842	*100.0*	876952	*100.0*	1276974	*100.0*	1118964	*100.0*	963492	*100.0*	810749	*100.0*	132875	[10.4]	98999	[8.8]	74350	[7.7]	66203	[8.3]

Figures in italics are percentages of GDP at current market prices. Figures in square brackets are excess of new series over old series in per cent.

Table 7: Capital Formation by Type of Assets and by Type of Institution

(Rs Crore)

Item	New Series									Old Series				Excess of New Series over Old Series			
	At 1993-94 Prices				At Current Prices					At Current Prices				At Current Prices			
	1997-98	1996-97	1995-96	1994-95	1997-98	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1 Gross capital formation	277390	257625	261073	218300	365355	326370	311979	238064	182100	321848	304980	241379	172532	4522	6999	-3315	9568
	24.1	*23.5*	*25.5*	*23.1*	*23.4*	*23.1*	*25.6*	*22.9*	*20.8*	*25.2*	*27.3*	*25.1*	*21.3*	[1.4]	[2.3]	[-1.4]	[5.5]
1.1 public sector	79365	72797	75094	81179	108769	93798	89791	88415	70760	94215	88477	86749	69523	-417	1314	1666	1237
	6.9	*6.6*	*7.3*	*8.6*	*7.0*	*6.7*	*7.4*	*8.5*	*8.1*	*7.4*	*7.9*	*9.0*	*8.6*	[-0.4]	[1.5]	[1.9]	[1.8]
1.2 private corporate sector	103557	85146	92143	63681	131531	105386	109191	69751	48734	104734	101801	68120	47853	652	7390	1631	881
	9.0	*7.8*	*9.0*	*6.7*	*8.4*	*7.5*	*9.0*	*6.7*	*5.6*	*8.2*	*9.1*	*7.1*	*5.9*	[0.6]	[7.3]	[2.4]	[1.8]
1.3 household sector	94468	99682	93836	73440	125055	127186	112997	79898	62606	122899	114702	86510	55156	4287	-1705	-6612	7450
	8.2	*9.1*	*9.2*	*7.8*	*8.0*	*9.0*	*9.3*	*7.7*	*7.1*	*9.6*	*10.3*	*9.0*	*6.8*	[3.5]	[-1.5]	[-7.6]	[13.5]
2 Gross fixed capital formation	271653	258238	242826	204152	357836	327090	290113	222459	183418	305983	271594	216407	174702	21107	18519	6052	8716
	23.6	*23.6*	*23.8*	*21.6*	*22.9*	*23.2*	*23.8*	*21.4*	*20.9*	*24.0*	*24.3*	*22.5*	*21.5*	[6.9]	[6.8]	[2.8]	[5.0]
2.1 public sector	77890	71702	76279	81501	106856	92397	91234	88782	68790	91794	89884	87208	67553	603	1350	1574	1237
	6.8	*6.5*	*7.5*	*8.6*	*6.8*	*6.6*	*7.5*	*8.6*	*7.8*	*7.2*	*8.0*	*9.1*	*8.3*	[0.7]	[1.5]	[1.8]	[1.8]
2.1.1 construction	42022	39158	41876	40947	61675	52868	51443	45131	36538	51735	51296	44349	35902	1133	147	782	636
	3.7	*3.6*	*4.1*	*4.3*	*3.9*	*3.7*	*4.2*	*4.3*	*4.2*	*4.1*	*4.6*	*4.6*	*4.4*	[2.2]	[0.3]	[1.8]	[1.8]
2.1.2 machinery and equipment	35868	32544	34403	40554	45181	39529	39791	43651	32252	40059	38588	42859	31651	-530	1203	792	601
	3.1	*3.0*	*3.4*	*4.3*	*2.9*	*2.8*	*3.3*	*4.2*	*3.7*	*3.1*	*3.4*	*4.4*	*3.9*	[-1.3]	[3.1]	[1.8]	[1.9]
2.2 private corporate sector	104157	91523	80652	54110	132314	113377	95349	59164	51214	103401	89068	57533	50333	9976	6281	1631	881
	9.0	*8.3*	*7.9*	*5.7*	*8.5*	*8.0*	*7.8*	*5.7*	*5.8*	*8.1*	*8.0*	*6.0*	*6.2*	[9.6]	[7.1]	[2.8]	[1.8]
2.2.1 construction	15427	13994	12633	6874	20780	17885	15172	7403	7031	11840	10217	6647	6520	6045	4955	756	511
	1.3	*1.3*	*1.2*	*0.7*	*1.3*	*1.3*	*1.2*	*0.7*	*0.8*	*0.9*	*0.9*	*0.7*	*0.8*	[51.1]	[48.5]	[11.4]	[7.8]
2.2.2 machinery and equipment	88730	77529	68019	47236	111534	95492	80177	51761	44183	91561	78851	50886	43813	3931	1326	875	370
	7.7	*7.1*	*6.7*	*5.0*	*7.1*	*6.8*	*6.6*	*5.0*	*5.0*	*7.2*	*7.0*	*5.3*	*5.4*	[4.3]	[1.7]	[1.7]	[0.8]
2.3 household sector	89606	95013	85895	68541	118666	121316	103530	74513	63414	110788	92642	71666	56816	10528	10888	2847	6598
	7.8	*8.7*	*8.4*	*7.2*	*7.6*	*8.6*	*8.5*	*7.2*	*7.2*	*8.7*	*8.3*	*7.4*	*7.0*	[9.5]	[11.8]	[4.0]	[11.6]
2.3.1 construction	42176	47247	44617	44460	59046	62468	54863	48120	43623	67467	53522	43657	38612	-4999	1341	4463	5011
	3.7	*4.3*	*4.4*	*4.7*	*3.8*	*4.4*	*4.5*	*4.6*	*5.0*	*5.3*	*4.8*	*4.5*	*4.8*	[-7.4]	[2.5]	[10.2]	[13.0]
2.3.2 machinery and equipment	47430	47766	41278	24081	59620	58848	48667	26393	19791	43321	39120	28009	18204	15527	9547	-1616	1587
	4.1	*4.4*	*4.0*	*2.5*	*3.8*	*4.2*	*4.0*	*2.5*	*2.3*	*3.4*	*3.5*	*2.9*	*2.2*	[35.8]	[24.4]	[-5.8]	[8.7]
3 Change in stocks	5737	-613	18247	14148	7519	-720	21866	15605	-1318	15865	33386	24972	-2170	-16585	-11520	-9367	852
	0.5	*-0.1*	*1.8*	*1.5*	*0.5*	*-0.1*	*1.8*	*1.5*	*-0.2*	*1.2*	*3.0*	*2.6*	*-0.3*	[-104.5]	[-34.5]	[-37.5]	[-39.3]
3.1 public sector	1475	1095	-1185	-322	1913	1401	-1443	-367	1970	2421	-1407	-459	1970	-1020	-36	92	0
	0.1	*0.1*	*-0.1*	*0.0*	*0.1*	*0.1*	*-0.1*	*0.0*	*0.2*	*0.2*	*-0.1*	*0.0*	*0.2*	[-42.1]	[2.6]	[-20.0]	
3.2 private corporate sector	-600	-6377	11491	9571	-783	-7991	13842	10587	-2480	1333	12733	10587	-2480	-9324	1109	0	0
	-0.1	*-0.6*	*1.1*	*1.0*	*-0.1*	*-0.6*	*1.1*	*1.0*	*-0.3*	*0.1*	*1.1*	*1.1*	*-0.3*	[-699.5]	[8.7]		
3.3 household sector	4862	4669	7941	4899	6389	5870	9467	5385	-808	12111	22060	14844	-1660	-6241	-12593	-9459	852
	0.4	*0.4*	*0.8*	*0.5*	*0.4*	*0.4*	*0.8*	*0.5*	*-0.1*	*0.9*	*2.0*	*1.5*	*-0.2*	[-51.5]	[-57.1]	[-63.7]	[-51.3]
4 Less consumption of fixed-capital	112272	104018	96321	89068	148064	131282	114109	97000	82959	127182	111586	95339	81552	4100	2523	1661	1407
	9.8	*9.5*	*9.4*	*9.4*	*9.5*	*9.3*	*9.4*	*9.3*	*9.5*	*10.0*	*10.0*	*9.9*	*10.1*	[3.2]	[2.3]	[1.7]	[1.7]
4.1 public sector	43973	42365	40857	38933	59618	54181	48342	42384	36567	53477	47924	41949	36454	704	418	435	113
	3.8	*3.9*	*4.0*	*4.1*	*3.8*	*3.8*	*4.0*	*4.1*	*4.2*	*4.2*	*4.3*	*4.4*	*4.5*	[1.3]	[0.9]	[1.0]	[0.3]
4.2 private corporate sector	30697	26282	22375	19092	38770	32454	26409	20895	16836	31972	26198	20805	16769	482	211	90	67
	2.7	*2.4*	*2.2*	*2.0*	*2.5*	*2.3*	*2.2*	*2.0*	*1.9*	*2.5*	*2.3*	*2.2*	*2.1*	[1.5]	[0.8]	[0.4]	[0.4]
4.3 household sector	37602	35371	33089	31043	49676	44647	39358	33721	29556	41733	37464	32585	28329	2914	1894	1136	1227
	3.3	*3.2*	*3.2*	*3.3*	*3.2*	*3.2*	*3.2*	*3.2*	*3.4*	*3.3*	*3.3*	*3.4*	*3.5*	[7.0]	[5.1]	[3.5]	[4.3]
5 Net capital formation	165118	153607	164752	129232	217291	195088	197870	141064	99141	194666	193394	146040	90980	422	4476	-4976	8161
	14.3	*14.0*	*16.1*	*13.7*	*13.9*	*13.8*	*16.2*	*13.6*	*11.3*	*15.2*	*17.3*	*15.2*	*11.2*	[0.2]	[2.3]	[-3.4]	[9.0]
5.1 public sector	35392	30432	34237	42246	49151	39617	41449	46031	34193	40738	40553	44800	33069	-1121	896	1231	1124
	3.1	*2.8*	*3.3*	*4.5*	*3.1*	*2.8*	*3.4*	*4.4*	*3.9*	*3.2*	*3.6*	*4.6*	*4.1*	[-2.8]	[2.2]	[2.7]	[3.4]
5.2 private corporate sector	72860	58864	69768	44589	92761	72932	82782	48856	31898	72762	75603	47315	31084	170	7179	1541	814
	6.3	*5.4*	*6.8*	*4.7*	*5.9*	*5.2*	*6.8*	*4.7*	*3.6*	*5.7*	*6.8*	*4.9*	*3.8*	[0.2]	[9.5]	[3.3]	[2.6]
5.3 household sector	56866	64311	60747	42397	75379	82539	73639	46177	33050	81166	77238	53925	26827	1373	-3599	-7748	6223
	4.9	*5.9*	*5.9*	*4.5*	*4.8*	*5.9*	*6.0*	*4.4*	*3.8*	*6.4*	*6.9*	*5.6*	*3.3*	[1.7]	[-4.7]	[-14.4]	[23.2]
6 Errors and omissions	16718	27883	1976	23265	22022	35317	2361	25351	14279	26637	-1197	17599	15969	8680	3558	7752	-1690
	1.5	*2.5*	*0.2*	*2.5*	*1.4*	*2.5*	*0.2*	*2.4*	*1.6*	*2.1*	*-0.1*	*1.8*	*2.0*	[32.6]	[-297.2]	[44.0]	[-10.6]
7 Net capital formation adjusted for errors and omissions	181836	181490	166728	152497	239313	230405	200231	166415	113420	221303	192197	163639	106949	9102	8034	2776	6471
	15.8	*16.6*	*16.3*	*16.1*	*15.3*	*16.3*	*16.4*	*16.0*	*12.9*	*17.3*	*17.2*	*17.0*	*13.2*	[4.1]	[4.2]	[1.7]	[6.1]
8. Gross capital formation adjusted for errors and omissions	294108	285508	263049	241565	387377	361687	314340	263415	196379	348485	303783	258978	188501	13202	10557	4437	7878
	25.6	*26.0*	*25.7*	*25.5*	*24.8*	*25.7*	*25.8*	*25.4*	*22.4*	*27.3*	*27.1*	*26.9*	*23.3*	[3.8]	[3.5]	[1.7]	[4.2]
GDP at market prices	1151014	1096433	1022285	946335	1563552	1409849	1217963	1037842	876952	1276974	1118964	963492	810749	132875	98999	74350	66203
	100.0	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	[10.4]	[8.8]	[7.7]	[8.2]

Figures in italics are percentages of GDP at market prices. Figures in square brackets are excess of new series over old series in per cent.

Table 8: Income , Investment and Consumption Deflators : Revised Series (1993-94=100)

Industry	Income Deflators			
	1997-98	1996-97	1995-96	1994-95
(1)	(2)	(3)	(4)	(5)
1 Agriculture, forestry and fishing	141.4	134.2	122.1	111.2
1.1 Agriculture	141.5	135.0	122.5	111.1
1.2 Forestry and logging	125.0	121.0	114.4	109.9
1.3 Fishing	154.5	130.7	121.9	113.1
2 Industry	130.3	123.7	118.4	110.3
2.1 Mining and quarrying	122.3	116.3	106.4	104.1
2.2 Manufacturing	129.5	124.1	119.2	110.7
2.2.1 registered	128.2	123.5	118.5	110.4
2.2.2 unregistered	132.4	125.4	120.8	111.2
2.3 Electricity, gas and water supply	143.7	127.6	125.1	114.6
3 Services	135.7	127.7	117.7	108.3
3.1 Construction	137.2	132.8	120.4	108.9
3.2 Trade, hotels and restaurants	135 0	126.4	114.6	106.3
3.2.1 trade	134.4	125.8	114.1	106.2
3.2.2 hotels and restaurants	144.0	136.0	123.0	109.3
3.3 Transport, storage and communication	135.2	123.2	113.1	108.7
3.3.1 railways	128.0	118.5	118.2	113.8
3.3.2 transport by other means	143.4	127.5	112.7	107.5
3.3.3 storage	151.9	143.7	129.6	118.8
3.3.4 communication	115.7	112.5	109.5	108.2
3.4 Financing, insurance, real estate and business services	129.5	125.8	120.4	108.5
3.4.1 banking and insurance	133.6	132.6	128.3	110.9
3.4.2 real estate, ownership of dwellings and business	124.5	118.3	112.5	106.3
3.5 Community, social and personal services	142.3	132.5	121.2	110.0
3.5.1 public administration and defence	142.0	132.6	121.3	110.1
3.5.2 other services	142.5	132.4	121.1	109.9
4 Total gross domestic product at factor cost	136.0	128.7	119.1	109.6

Item	Investment Deflators			
	1997-98	1996-97	1995-96	1994-95
(6)	(7)	(8)	(9)	(10)
1 Gross capital formation (by sectors)	131.7	126.7	119.5	109.1
1.1 public sector	137.0	128.8	119.6	108.9
1.2 private corporate sector	127.0	123.8	118.5	109.5
1.3 household sector	132.4	127.6	120.4	108.8
2 Gross fixed capital formation (by sector and type)	131.7	126.7	119.5	109.0
2.1 public sector	137.2	128 9	119.6	108.9
2.1.1 construction	146.8	135.0	122.8	110.2
2.1.2 machinery and equipment	126.0	121.5	115.7	107.6
2.2 private corporate sector	127.0	123.9	118.2	109.3
2.2.1 construction	134.7	127.8	120.1	107.7
2.2.2 machinery and equipment	125.7	123.2	117.9	109.6
2.3 household sector	132.4	127.7	120.5	108.7
2.3.1 construction	140.0	132.2	123.0	108.2
2.3.2 machinery and equipment	125.7	123.2	117.9	109.6
3 Gross fixed capital formation (by type)				
3.1 construction	142.0	132.7	122.5	109.1
3.2 machinery and equipment	125.8	122.8	117.4	108.9
4 Change in stocks (by sectors)	131.1	117.5	119.8	110.3
4.1 public sector	129.7	127.9	121.8	114.0
4.2 private corporate sector	130.5	126.1	120.5	110.6
4.3 household sector	131.4	125.7	119.2	109.9
5 Net capital formation (by sectors)	131.6	127.0	120.1	109.2
5.1 public sector	138.9	130.2	121.1	109.0
5.2 private corporate sector	127.3	123.9	118.7	109.6
5.3 household sector	132.6	128.3	121.2	108.9
6 Net capital formation adjusted for errors and omissions	131.6	127.0	120.1	109.1
7 Gross capital formation adjusted	131.7	126.7	119.5	109.0

Item	Consumption Deflators			
	1997-98	1996-97	1995-96	1994-95
(11)	(12)	(13)	(14)	(15)
1 Food, beverages and tobacco	138.3	132.3	118.1	109.1
1.1 food	137.7	132.2	117.9	109.0
1.1.1 cereals and bread	152.1	143.3	121.1	109.6
1.1.2 pulses	162.3	151.8	127.2	103.6
1.1.3 sugar and gur	119.9	112.2	104.6	106.0
1.1.4 oil and oilseeds	121.0	119.6	114.0	108.0
1.1.5 fruits and vegetables	133.1	137.8	117.4	107.6
1.1.6 potatoes and other tubers	148.2	145.9	138.5	108.0
1.1.7 milk and milk products	122.8	114.0	112.1	109.9
1.1.8 meat, egg and fish	149.4	138.6	126.6	117.4
1.1.9 coffee, tea and cocoa	199.9	139.5	139.8	119.8
1.1.10 spices and other food	134.9	127.5	112.8	103.6
1.2 beverages, pan and intoxicants	149.4	137.7	116.9	109.9
1.3 tobacco and its products	145.5	127.2	150.7	110.4
1.4 hotels and restaurants	143.9	135.9	123.0	109.4
2 Clothing and footwear	136.7	132.8	129.0	113.4
2.1 clothing	138.9	135.3	131.0	114.8
2.2 footwear	122.6	115.9	114.4	106.6
3 Gross rent, fuel and power	117.3	112.4	107.9	105.2
3.1 gross rent and water charges	113.2	110.0	106.9	103.6
3.2 fuel and power	126.1	117.6	110.0	108.5
4 Furniture, furnishings, appliances and services	134.8	126.0	114.7	107.7
4.1 furniture, furnishings and household equipments etc.	124.7	120.4	117.2	107.2
4.2 services	183.6	150.6	105.7	110.0
5 Medical care and health services	140.6	129.8	125.6	117.6
6 Transport and communication	127.5	125.2	111.4	107.2
6.1 personal transport equipment	128.0	124.3	115.8	106.3
6.2 operation of personal transport	139.9	129.6	110.9	107.3
6.3 purchase of transport services	122.3	123.9	111.4	106.6
6.4 communication	116.1	114.1	111.1	111.2
7 Recreation, education and cultural	129.3	124.2	117.1	107.1
7.1 education	143.0	132.5	121.1	110.2
7.2 others	114.0	114.9	112.7	103.7
8 Miscellaneous goods and services	132.3	125.8	120.2	108.3
9 Private final consumption expenditure in domestic market	133.7	128.2	117.0	108.7

Table 9: Gross Capital Formation by Industry of Use

(Rs crore)

Industry	New Series									Old Series				Excess of New Series over Old Series			
	At 1993-94 Prices				At Current Prices					At Current Prices				At Current Prices			
	1997-98	1996-97	1995-96	1994-95	1997-98	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1 Agriculture, forestry and fishing	23272	22052	21952	20038	32714	29044	26406	22029	17571	31930	29335	24520	18708	-2886	-2929	-2491	-1137
	2.0	*2.0*	*2.1*	*2.1*	*2.1*	*2.1*	*2.2*	*2.1*	*2.0*	*2.5*	*2.6*	*2.5*	*2.3*	[-9.0]	[-10.0]	[-10.2]	[-6.1]
1.1 Agriculture	20995	19902	19944	18214	29700	26296	23942	19993	15845	29198	26886	22487	16982	-2902	-2944	-2494	-1137
	1.8	*1.8*	*2.0*	*1.9*	*1.9*	*1.9*	*2.0*	*1.9*	*1.8*	*2.3*	*2.4*	*2.3*	*2.1*	[-9.9]	[-10.9]	[-11.1]	[-6.7]
1.2 Forestry and logging	476	504	505	451	733	706	626	502	474	689	610	498	474	17	16	4	0
	0.0	*0.0*	*0.0*	*0.0*	*0.0*	*0.1*	*0.1*	*0.0*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	[2.5]	[2.6]	[0.8]	[0.0]
1.3 Fishing	1801	1646	1503	1373	2281	2042	1838	1534	1252	2043	1839	1535	1252	-1	-1	-1	0
	0.2	*0.2*	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.1*	*0.1*	*0.2*	*0.2*	*0.2*	*0.2*	[-0.0]	[-0.1]	[-0.1]	[0.0]
2 Industry	146209	126462	136175	101711	189895	158644	161811	110962	82373	125530	131503	111690	69559	33114	30311	-728	12814
	12.7	*11.5*	*13.3*	*10.7*	*12.1*	*11.3*	*13.3*	*10.7*	*9.4*	*9.8*	*11.8*	*11.6*	*8.6*	[26.4]	[23.1]	[-0.7]	[18.4]
2.1 Mining and quarrying	5555	5189	9845	14576	7900	6953	11698	15847	6534	7871	12514	15672	6536	-918	-816	175	-2
	0.5	*0.5*	*1.0*	*1.5*	*0.5*	*0.5*	*1.0*	*1.5*	*0.7*	*0.6*	*1.1*	*1.6*	*0.8*	[-11.7]	[-6.5]	[1.1]	[-0.0]
2.2 Manufacturing	117852	101035	106459	66711	151068	125644	126337	72761	52768	93529	94793	74473	40838	32115	31544	-1712	11930
	10.2	*9.2*	*10.4*	*7.0*	*9.7*	*8.9*	*10.4*	*7.0*	*6.0*	*7.3*	*8.5*	*7.7*	*5.0*	[34.3]	[33.3]	[-2.3]	[29.2]
2.2.1 registered	101221	85150	90990	56160	129319	105774	108104	61420	41932	73829	75328	59255	29821	31945	32776	2165	[illegible]
	8.8	*7.8*	*8.9*	*5.9*	*8.3*	*7.5*	*8.9*	*5.9*	*4.8*	*5.8*	*6.7*	*6.2*	*3.7*	[43.3]	[43.5]	[3.7]	[illegible]
2.2.2 unregistered	16631	15885	15469	10551	21749	19870	18233	11341	10836	19700	19465	15218	11017	170	-1232	-3877	-181
	1.4	*1.4*	*1.5*	*1.1*	*1.4*	*1.4*	*1.5*	*1.1*	*1.2*	*1.5*	*1.7*	*1.6*	*1.4*	[0.9]	[-6.3]	[-25.5]	[-1.6]
2.3 Electricity, gas and water supply	22802	20238	19871	20424	30927	26047	23776	22354	23071	24130	24193	21545	22185	1917	-417	-809	886
	2.0	*1.8*	*1.9*	*2.2*	*2.0*	*1.8*	*2.0*	*2.2*	*2.6*	*1.9*	*2.2*	*2.2*	*2.7*	[7.9]	[-1.7]	[3.8]	[4.0]
3 Services	96413	90326	87778	90647	127926	113663	104528	98415	77577	128889	118681	101945	74503	-15226	-14153	-3530	3874
	8.4	*8.2*	*8.6*	*9.6*	*8.2*	*8.1*	*8.6*	*9.5*	*8.8*	*10.1*	*10.6*	*10.6*	*9.2*	[-11.8]	[-11.9]	[-3.5]	[4.1]
3.1 Construction	4193	3770	3862	2636	5371	4689	4584	2921	2815	4045	3517	2892	2779	644	1067	29	36
	0.4	*0.3*	*0.4*	*0.3*	*0.3*	*0.3*	*0.4*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*	*0.3*	[15.9]	[30.3]	[1.0]	[1.3]
3.2 Trade, hotels and restaurants	10891	8346	4234	10827	14180	10449	5013	11937	6461	15983	20929	17978	5389	-5534	-15916	-6041	1072
	0.9	*0.8*	*0.4*	*1.1*	*0.9*	*0.7*	*0.4*	*1.2*	*0.7*	*1.3*	*1.9*	*1.9*	*0.7*	[-34.6]	[-76.0]	[-33.6]	[19.9]
3.2.1 trade	7401	5207	1556	8476	9654	6516	1828	9285	4577	12011	17417	15424	3520	-5495	-15589	-6139	1057
	0.6	*0.5*	*0.2*	*0.9*	*0.6*	*0.5*	*0.2*	*0.9*	*0.5*	*0.9*	*1.6*	*1.6*	*0.4*	[-45.7]	[-89.5]	[-39.8]	[30.0]
3.2.2 hotels and restaurants	3490	3139	2678	2351	4526	3933	3185	2652	1884	3972	3512	2554	1869	-39	-327	98	15
	0.3	*0.3*	*0.3*	*0.2*	*0.3*	*0.3*	*0.3*	*0.3*	*0.2*	*0.3*	*0.3*	*0.3*	*0.2*	[-1.0]	[-9.3]	[3.8]	[0.8]
3.3 Transport, storage and communication	28114	27921	25976	24018	36254	34369	30495	25841	24147	35559	29822	25730	24115	-1190	673	111	32
	2.4	*2.5*	*2.5*	*2.5*	*2.3*	*2.4*	*2.5*	*2.5*	*2.8*	*2.8*	*2.7*	*2.7*	*3.0*	[-3.3]	[2.3]	[0.4]	[0.1]
3.3.1 railways	4290	4933	4550	4672	5357	5939	5210	4992	5581	5550	5210	4991	5581	389	0	1	0
	0.4	*0.4*	*0.4*	*0.5*	*0.3*	*0.4*	*0.4*	*0.5*	*0.6*	*0.4*	*0.5*	*0.5*	*0.7*	[7.0]	[0.0]	[0.0]	[0.0]
3.3.2 transport by other means	16570	16302	14453	12693	20672	19596	16559	13566	12717	20116	16150	13466	12686	-520	409	100	31
	1.4	*1.5*	*1.4*	*1.3*	*1.3*	*1.4*	*1.4*	*1.3*	*1.5*	*1.6*	*1.4*	*1.4*	*1.6*	[-2.6]	[2.5]	[0.7]	[0.2]
3.3.3 storage	83	82	77	119	112	104	92	128	99	112	88	118	98	-8	4	10	1
	0.0	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	[-7.1]	[4.5]	[8.5]	[1.0]
3.3.4 communication	7171	6604	6896	6534	10113	8730	8634	7155	5750	9781	8374	7155	5750	-1051	260	0	0
	0.6	*0.6*	*0.7*	*0.7*	*0.6*	*0.6*	*0.7*	*0.7*	*0.7*	*0.8*	*0.7*	*0.7*	*0.7*	[-10.7]	[3.1]	[0.0]	[0.0]
3.4 Financing, insurance, real estate and business services	30597	29991	32855	32013	40591	38065	39375	34668	27647	47816	42047	35463	28528	-9751	-2672	-795	-881
	2.7	*2.7*	*3.2*	*3.4*	*2.6*	*2.7*	*3.2*	*3.3*	*3.2*	*3.7*	*3.8*	*3.7*	*3.5*	[-20.4]	[-6.4]	[-2.2]	[-3.1]
3.4.1 banking and insurance	9772	9638	12803	11210	12491	11949	15133	12164	7114	17088	14142	11316	6875	-5139	991	848	239
	0.8	*0.9*	*1.3*	*1.2*	*0.8*	*0.8*	*1.2*	*1.2*	*0.8*	*1.3*	*1.3*	*1.2*	*0.8*	[-30.1]	[7.0]	[7.5]	[3.5]
3.4.2 real estate, ownership of dwellings and business	20825	20353	20052	20803	28100	26116	24242	22504	20533	30728	27905	24147	21653	-4612	-3663	-1643	-1120
	1.8	*1.9*	*2.0*	*2.2*	*1.8*	*1.9*	*2.0*	*2.2*	*2.3*	*2.4*	*2.5*	*2.5*	*2.7*	[-15.0]	[-13.1]	[-6.8]	[-5.2]
3.5 Community, social and personal services	22618	20298	20851	21153	31530	26091	25061	23048	16507	25486	22366	19882	13692	605	2695	3166	2815
	2.0	*1.9*	*2.0*	*2.2*	*2.0*	*1.9*	*2.1*	*2.2*	*1.9*	*2.0*	*2.0*	*2.1*	*1.7*	[2.4]	[12.0]	[15.9]	[20.6]
3.5.1 public administration and defence	14330	12669	13194	13590	20258	16680	15949	14893	10644	18548	16475	14889	10632	-1868	-526	4	12
	1.2	*1.2*	*1.3*	*1.4*	*1.3*	*1.2*	*1.3*	*1.4*	*1.2*	*1.5*	*1.5*	*1.5*	*1.3*	[-10.1]	[-3.2]		[0.1]
3.5.2 other services	8288	7429	7657	7563	11272	9411	9112	8155	5863	6938	5891	4993	3060	2473	3221	3162	2803
	0.7	*0.7*	*0.7*	*0.8*	*0.7*	*0.7*	*0.7*	*0.8*	*0.7*	*0.5*	*0.5*	*0.5*	*0.4*	[35.6]	[54.7]	[63.3]	[91.6]
10 Total gross capital formation by industry of use	265894	238640	245905	212396	350535	301351	292745	231406	177521	286349	279516	238155	162770	15002	13229	-6749	14751
	23.1	*21.8*	*24.1*	*22.4*	*22.4*	*21.4*	*24.0*	*22.3*	*20.2*	*22.4*	*25.0*	*24.7*	*20.1*	[5.2]	[4.7]	[-2.8]	[9.1]
11 Gross capital formation by type of assets adjusted	294108	285508	263049	241565	387377	361687	314340	263415	196379	348485	303783	258978	188501	13202	10557	4437	7878
	25.6	*26.0*	*25.7*	*25.5*	*24.8*	*25.7*	*25.8*	*25.4*	*22.4*	*27.3*	*27.1*	*26.9*	*23.3*	[3.8]	[3.5]	[1.7]	[4.2]
12 Difference (11-10)	28214	46868	17144	29169	36842	60336	21595	32009	18858	62136	24267	20823	25731	-1800	-2672	11186	-6873
	2.5	*4.3*	*1.7*	*3.1*	*2.4*	*4.3*	*1.8*	*3.1*	*2.2*	*4.9*	*2.2*	*2.2*	*3.2*	[-2.9]	[-11.0]	[53.7]	[-36.7]
GDP at market prices	1151014	1096433	1022285	946335	1563552	1409849	1217963	1037842	876952	1276974	1118964	963492	810749	132875	98999	74350	[illegible]
	100.0	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	[10.4]	[8.8]	[7.7]	[8.2]

Figures in italics are percentage distribution to GDP at market prices. Figures in square brackets are excess of new series over old series in per cent.

Table 10: Performance of Public Sector *vis-a-vis* Private Sector (At Current Prices)

(Rs crore)

Item	New Series					Old Series				Excess of New Series over Old Series			
	1997-98	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94	1996-97	1995-96	1994-95	1993-94
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1 Gross domestic product	1426670	1285259	1103238	943408	799077	1149215	1006286	868019	732874	136044	96952	75389	66203
1.1 public	355132	295592	268907	233518	202033	294050	263957	231764	200501	1542	4950	1754	1532
	24.9	*23.0*	*24.4*	*24.8*	*25.3*	*25.6*	*26.2*	*26.7*	*27.4*	[0.5]	[1.9]	[0.8]	[0.8]
1.2 private	1071538	989667	834331	709890	597044	855165	742329	636255	532373	134502	92002	73635	64671
	75.1	*77.0*	*75.6*	*75.2*	*74.7*	*74.4*	*73.8*	*73.3*	*72.6*	[15.7]	[12.4]	[11.6]	[12.1]
2 Gross domestic saving	361518 (23.1)	344391 (24.4)	293560 (24.1)	251522 (24.2)	191588 (21.8)	333816 (26.1)	283003 (25.3)	247087 (25.6)	183710 (22.7)	10575	10557	4435	7878
2.1 public	16400 (1.0)	21268 (1.5)	22895 (1.9)	15862 (1.5)	4577 (0.5)	24728 (1.9)	25195 (2.3)	17491 (1.8)	4557 (0.6)	3460	-2300	-1629	20
	4.5	*6.2*	*7.8*	*6.3*	*2.4*	*7.4*	*8.9*	*7.1*	*2.5*	[-14.0]	[-9.1]	[-9.3]	[0.4]
2.2 private	345118 (22.1)	323123 (22.9)	270665 (22.2)	235660 (22.7)	187011 (21.3)	309088 (24.2)	257808 (23.0)	229596 (23.8)	179153 (22.1)	14035	12857	6064	7858
	95.5	*93.8*	*92.2*	*93.7*	*97.6*	*92.6*	*91.1*	*92.9*	*97.5*	[4.5]	[5.0]	[2.6]	[4.4]
3 Gross capital formation	365355 (23.4)	326370 (23.1)	311979 (25.6)	238064 (22.9)	182100 (20.8)	321848 (25.2)	304980 (27.3)	241379 (25.1)	172532 (21.3)	4522	6999	-3315	9568
3.1 public	108769 (7.0)	93798 (6.7)	89791 (7.4)	88415 (8.5)	70760 (8.1)	94215 (7.4)	88477 (7.9)	86749 (9.0)	69523 (8.6)	-417	1314	1666	1237
	29.8	*28.7*	*28.8*	*37.1*	*38.9*	*29.3*	*29.0*	*35.9*	*40.3*	[-0.4]	[1.5]	[1.9]	[1.8]
3.2 private	256586 (16.4)	232572 (16.5)	222188 (18.2)	149649 (14.4)	111340 (12.7)	227633 (17.8)	216503 (19.3)	154630 (16.0)	103009 (12.7)	4939	5685	-4981	8331
	70.2	*71.3*	*71.2*	*62.9*	*61.1*	*70.7*	*71.0*	*64.1*	*59.7*	[2.2]	[2.6]	[-3.2]	[8.1]
4 Final consumption expenditure	1134265 (72.5)	1030279 (73.1)	884408 (72.6)	767629 (74.0)	663479 (75.7)	867032 (67.9)	765051 (68.4)	675833 (70.1)	588853 (72.6)	163247	119357	91796	74626
4.1 public	173864 (11.1)	144049 (10.2)	127024 (10.4)	107169 (10.3)	96240 (11.0)	132166 (10.3)	115957 (10.4)	100498 (10.4)	89926 (11.1)	11883	11067	6671	6314
	15.3	*14.0*	*14.4*	*14.0*	*14.5*	*15.2*	*15.2*	*14.9*	*15.3*	[9.0]	[9.5]	[6.6]	[7.0]
4.2 private	960401 (61.4)	886230 (62.9)	757384 (62.2)	660460 (63.6)	567239 (64.7)	734866 (57.5)	649094 (58.0)	575335 (59.7)	498927 (61.5)	151364	108290	85125	68312
	84.7	*86.0*	*85.6*	*86.0*	*85.5*	*94.8*	*84.8*	*85.1*	*84.7*	[20.6]	[16.7]	[14.8]	[13.7]
GDP at current market prices	1563552 (100.0)	1409849 (100.0)	1217963 (100.0)	1037842 (100.0)	876952 (100.0)	1276974 (100.0)	1118964 (100.0)	963492 (100.0)	810749 (100.0)	132875	98999	74350	66203
										[10.4]	[8.8]	[7.7]	[8.2]

Figures in italics are percentage shares of public and private sectors. Figures in square brackets are excess of new series over old series in per cent

Table 11: Income and Outlay Account of the Administrative Departments Including Departmental Enterprises Other than Railways and Communication (At Current Prices)

(Rs crore)

Item	New Series					Old Series			Excess of New over Old Series		
	1997-98	1996-97	1995-96	1994-95	1993-94	1995-96	1994-95	1993-94	1995-96	1994-95	1993-94
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Expenditure											
1 consumption expenditure	166939 (10.7)	137433 (9.7)	121140 (9.9)	102290 (9.9)	91841 (10.5)	115957 (10.4)	100498 (10.4)	89926 (11.1)	5183	1792	1915
	65.0	*61.8*	*62.1*	*60.7*	*66.8*	*59.0*	*60.0*	*65.8*	[4.5]	[1.8]	[2.1]
2 interest on public debt	66939 (4.3)	58249 (4.1)	49354 (4.1)	44902 (4.3)	35783 (4.1)	49438 (4.4)	45283 (4.7)	36302 (4.5)	-84	-381	-519
	26.1	*26.2*	*25.3*	*26.7*	*26.0*	*25.1*	*27.0*	*26.6*	[-0.2]	[-0.8]	[-1.4]
3 subsidies	38504 (2.5)	38076 (2.7)	27675 (2.3)	26633 (2.6)	23251 (2.7)	29725 (2.7)	25594 (2.7)	23251 (2.9)	-2050	1039	0
	15.0	*17.1*	*14.2*	*15.8*	*16.9*	*15.1*	*15.3*	*17.0*	[-6.9]	[4.1]	
4 current transfers	44353 (2.8)	37241 (2.6)	35620 (2.9)	31614 (3.0)	22641 (2.6)	35525 (3.2)	31614 (3.3)	22640 (2.8)	95	0	1
	17.3	*16.8*	*18.2*	*18.8*	*16.5*	*18.1*	*18.9*	*16.6*	[0.3]		
5 net saving	59875 (3.8)	-48778 (3.5)	38576 (3.2)	37060 (3.6)	36106 (-4.1)	33990 (3.0)	35448 (3.7)	-35454 (-4.4)	-4586	1612	-652
	23.3	*22.0*	*19.8*	*22.0*	*26.3*	*17.3*	*21.2*	*25.9*	[13.5]	[4.5]	[1.8]
6 Total Expenditure	256860 (16.4)	222221 (15.8)	195213 (16.0)	168379 (16.2)	137410 (15.7)	196655 (17.6)	167541 (17.4)	136665 (16.9)	1442	838	745
	100.0	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	[-0.7]	[0.5]	[0.5]
Receipts											
7 income from entrepreneurship	11543 (0.7)	11263 (0.8)	8240 (0.7)	8900 (0.9)	8937 (1.0)	9048 (0.8)	8188 (0.8)	8301 (1.0)	-808	712	636
	4.5	*5.1*	*4.2*	*5.3*	*6.5*	*4.6*	*4.9*	*6.1*	[-8.9]	[8.7]	[7.7]
7.1 profits	-7710	-6646	5383	3146	3057	-4686	-3101	-3057	-697	-45	0
7.2 interest receipts	8853	8994	5711	5376	5954	5767	4619	5318	56	757	636
7.3 other property receipts	10400	8915	7912	6670	6040	7967	6670	6040	55	0	0
8 direct taxes	63878 (4.1)	42883 (3.0)	37394 (3.1)	30206 (2.9)	22985 (2.6)	37419 (3.3)	30206 (3.1)	22985 (2.8)	25	0	0
	24.9	*19.3*	*19.2*	*17.9*	*16.7*	*19.0*	*18.0*	*16.8*	[0.1]		
9 indirect taxes	175386 (11.2)	162666 (11.5)	142400 (11.7)	121067 (11.7)	101126 (11.5)	142403 (12.7)	121067 (12.6)	101126 (12.5)	3	0	0
	68.3	*73.2*	*72.9*	*71.9*	*73.6*	*72.4*	*72.3*	*74.0*			
10 miscellaneous	6053 (0.4)	5409 (0.4)	7179 (0.6)	8206 (0.8)	4362 (0.5)	7785 (0.7)	8080 (0.8)	4253 (0.5)	-606	126	109
	2.4	*2.4*	*3.7*	*4.9*	*3.2*	*4.0*	*4.8*	*3.1*	[-7.8]	[1.6]	[2.6]
11 Total Receipts	256860 (16.4)	222221 (15.8)	195213 (16.0)	168379 (16.2)	137410 (15.7)	196655 (17.6)	167541 (17.4)	136665 (16.9)	1442	838	745
	100.0	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	[-0.7]	[0.5]	[0.5]
GDP at current market prices	1563552 (100.0)	1409849 (100.0)	1217963 (100.0)	1037842 (100.0)	876952 (100.0)	1118964 (100.0)	963492 (100.0)	810749 (100.0)	98999	74350	66203
									[8.8]	[7.7]	[8.2]

Figures in italics are percentage shares to total expenditure and receipts respectively. Figures in square brackets are excess of new series over old series in per cent
Figures within round brackets represent percentages of GDP at current market prices

Table 12: Capital Finance Account of the Administrative Departments Including Departmental Enterprises Other than Railways and Communication
(At Current Prices)

(Rs crore)

Item	New Series					Old Series			Excess of New over Old Series		
	1997-98	1996-97	1995-96	1994-95	1993-94	1995-96	1994-95	1993-94	1995-96	1994-95	1993-94
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Expenditure											
1 Change in stocks	532 (0.0)	698 (0.0)	470 (0.0)	802 (0.1)	206 (0.0)	617 (0.1)	801 (0.1)	205 (0.0)	-147	1	1
	1.0	*1.6*	*1.2*	*2.2*	*0.7*	*1.5*	*2.[illegible]*	*0.7*	[-23.8]	[0.1]	[0.5]
1.1 administrative departments	485	144	195	494	125	248	493	124	-53	1	1
1.2 departmental enterprises	47	554	275	308	81	369	308	81	-94	0	0
2 Gross fixed capital formation	38681 (2.5)	32305 (2.3)	30234 (2.5)	27658 (2.7)	21525 (2.5)	30713 (2.7)	27644 (2.9)	21518 (2.7)	-479	14	7
	76.2	*73.4*	*77.1*	*76.7*	*75.1*	*75.7*	*76.7*	*75.1*	[-1.6]	[0.1]	
2.1 administrative departments	27835	22981	21544	19590	14654	22073	19576	14647	-529	14	7
2.2 departmental enterprises	10846	9324	8690	8068	6871	8640	8068	6871	50	0	0
3 Net purchase of second-hand physical assets	-269 (-0.0)	-364 (-0.0)	-1086 (-0.1)	-170 (-0.0)	-57 (-0.0)	-294 (-0.0)	-170 (-0.0)	-57 (-0.0)	-792	0	0
	-0.5	*-0.8*	*-2.8*	*-0.5*	*-0.2*	*-0.7*	*-0.5*	*-0.2*	[269.4]		
3.1 administrative departments	-377	-460	-1184	-282	-184	-392	-282	-184	-792	0	0
3.2 departmental enterprises	108	96	98	112	127	98	112	127	0	0	0
4 Capital transfers	11798 (0.8)	11346 (0.8)	9613 (0.8)	7790 (0.8)	7005 (0.8)	9559 (0.9)	7790 (0.8)	7005 (0.9)	54	0	0
	23.3	*25.8*	*24.5*	*21.6*	*24.4*	*23.5*	*21.6*	*24.4*	[0.6]		
4.1 to the rest of the world	369	247	236	147	152	237	147	152	-1	0	0
4.2 to other sectors	11429	11099	9377	7643	6853	9322	7643	6853	55	0	0
5 Total Expenditure	50742 (3.2)	43985 (3.1)	39231 (3.2)	36080 (3.5)	28679 (3.3)	40595 (3.6)	36065 (3.7)	28671 (3.5)	-1364	15	8
	100.0	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	[-3.4]		
Receipts											
6 Net saving	-59875 (-3.8)	-48778 (-3.5)	-38576 (-3.2)	-37060 (-3.6)	-36106 (-4.1)	-35179 (-3.1)	-34941 (-3.6)	-35820 (-4.4)	-3397	-2119	-286
	-118.0	*-110.9*	*-98.3*	*-102.7*	*-125.9*	*-86.7*	*-96.9*	*-124.9*	[9.7]	[6.1]	[0.8]
7 Consumption of fixed capital	16066 (1.0)	14308 (1.0)	12596 (1.0)	10963 (1.1)	9600 (1.1)	12425 (1.1)	10800 (1.1)	9601 (1.2)	171	163	-1
	31.7	*32.5*	*32.1*	*30.4*	*33.5*	*30.6*	*29.9*	*33.5*	[1.4]	[1.5	
8 Capital transferred from the rest of the world	1170 (0.1)	1190 (0.1)	1138 (0.1)	1038 (0.1)	993 (0.1)	1138 (0.1)	1038 (0.1)	993 (0.1)	0	0	0
	2.3	*2.7*	*2.9*	*2.9*	*3.5*	*2.8*	*2.9*	*3.5*			
9 Net borrowings	110198 (7.0)	77369 (5.5)	73350 (6.0)	66139 (6.4)	83418 (9.5)	72987 (6.5)	66139 (6.9)	83418 (10.3)	363	0	0
	217.2	*175.9*	*187.0*	*183.3*	*290.9*	*179.8*	*183.4*	*290.9*	[0.5]		
9.1 domestic	109195	74380	73032	62558	78344	72669	62558	78344	363	0	0
9.2 external	1003	2989	318	3581	5074	318	3581	5074	0	0	0
10 other liabilities	-16817 (-1.1)	-104 (-0.0)	-9277 (-0.8)	-5000 (-0.5)	-29226 (-3.3)	-10776 (-1.0)	-6971 (-0.7)	-29521 (-3.6)	1499	1971	295
	-33.1	*-0.2*	*-23.6*	*-13.9*	*-101.9*	*-26.5*	*-19.3*	*-103.0*	[-13.9]	[-28.3]	[-1.0]
11 Total Receipts	50742 (3.2)	43985 (3.1)	39231 (3.2)	36080 (3.5)	28679 (3.3)	40595 (3.6)	36065 (3.7)	28671 (3.5)	-1364	15	8
	100.0	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	[-3.4]		
GDP at current market prices	1563552 (100.0)	1409849 (100.0)	1217963 (100.0)	1037842 (100.0)	876952 (100.0)	1118964 (100.0)	963492 (100.0)	810749 (100.0)	98999	74350	66203
									[8.8]	[7.7]	[8.2]

Figures in italics are percentage shares to total expenditure and receipts respectively. Figures in square brackets are excess of new series over old series in per cent.
Figures within round brackets represent percentages of GDP at current market prices.

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Time, Truth and Play in Dangs

Confronted with pasts imagined differently from history, historians and social scientists have resorted to one of two strategies: by converting moral traditions into the equivalent of archival sources and then writing histories that adhere to the norms of western professional history writing; or by denying any significant traffic between history and other forms of conceiving pasts, subsuming the latter under the rubric of myth or, more recently, memory. In Dangs in Gujarat, 'vadilcha goth' or stories about ancestors are an engagement with modernity and its paradigmatic trope, history. Examination of how this engagement refigures and exceeds modernist time and truth helps to foreground the subaltern factors of anomalous and hybrid histories which in Dangs produces a multiplicity of pasts quite different from the multiple histories which historians conceive of and increasingly call for. **897**

PDS and Real Consumption Levels

Allocation of foodgrains under the Public Distribution System (PDS) has been very ad hoc, being fixed on some 'historical' basis. The conceptual basis for the PDS is the notion of providing some quantity of cereals so as to make available at least a part of the minimum calorific requirement. Evaluation of the current policy of allocation on the basis of this notion of subsidising real consumption through PDS. **919**

Time to Reconsider

India's political class, taking its lead from Jawaharlal Nehru, has from the beginning maintained that the border dispute and war with China was the result of China's expansionism culminating in a 'massive aggression' which took India by surprise. Chinese account is contrary, charging India with intransigence and aggression and presenting its own military action as reactive and pre-emptive. It is timely to reconsider, with the added perspective of 40 years and in the light of new material, the causes in the policies of two governments which led to the border dispute and war. **905**

Religion and Politics: India and the West

Much of the Indian debate on secularism is built around what seem to be common sense assumptions about India and the west. But a closer look at the impact of Protestant Puritanism on the relationship between religion and politics in the US suggests that these assumptions are mistaken. Far from having fundamentally different experiences, there are some striking similarities between India and the US – similarities which draw attention to potential long-term dangers for India. **887**

Lost Opportunity

The National Adult Education Programme and the Total Literacy Campaign failed to live up to their initial promise. Corruption undermined the former and a quick-fix approach the latter. Further, dependence on the commitment of individual administrators rather than on system reform injured both. One upshot has been that an opportunity for the empowerment of women that unexpectedly presented itself has been squandered. **877**

Chipko at 25

On the 25th anniversary of the Chipco movement, a tribute to the courageous activists who brought Chipco from a possible instrument of struggle to a trend-setting achievement. Also an examination of media-created 'messages' to dispel some of the myths about the movement, in particular whether Chipco was about economics or deep ecology and whether it was feminist. **880**

Decisive Measures

The experiences of 1998-99 show that in a fragile, structurally deficient environment, decisive steps to modulate market expectations alone can restore a semblance of discipline and stability in the financial sector. **868**

Credit Policy

Given the output, price and monetary trends, the credit policy to be announced later this month has to be decisively expansionary. Further, the issue is no longer that of the cost of credit, but of availability of credit and its distribution. **875**

State and Economy in Mexico

The restructuring of the Mexican economy and the reorganisation of the state have changed the government's relation to the people, redefining responsibilities for creating opportunities and resolving social problems. Review of the impact of structural changes on the well-being of principal social groups and the government's response to the profound problems of the neo-liberalism. **883**

Urdu Language and Education

I READ with interest Ralph Russell's observations on the present scenario of Urdu language and education. His wise and apt suggestions regarding promotion of this neglected language, which is also a symbol of the diverse cultural entity of India, are well thought out and reflect an insider's view, although Russell is an outsider, both technically and physically. His concern for the problems of Urdu is laudable and compels us too to take up this issue seriously.

It is a fact that the institutions and academies that were established by the government to further and promote Urdu language (and that too because Urud was not accorded the status of a regional language in the Urdu heartland when the reorganisation of states took place on linguistic basis in 1956) have turned out to be organs of the government always harping on the policies of the government. It is unfortunate that most Urdu writers – without discrimination, prominent and obscure – seek association with these government or semi-government institutions to be a part of the power structure. The manipulating *Urduwallahs* indulge in bullying and goading fellow *Urduwallahs*, but hardly speak against any government policy that intentionally or unintentionally is doing harm to this language. Similarly, there is hardly a magazine or journal in Urdu which calls a spade a spade, though there are Urdu newspapers whose main purpose is to blackmail the government of the day by threatening to turn Muslims against it.

Russell has drawn our attention to a very important aspect which we need to promote and propagate – i e, voluntary organisations should come forward and take up the role of providing facilities for Urud-learning in order to preserve and spread Urdu culture Despite his best intentions to present a feasible way to solve the question of preservation of a language by denying or ignoring the role of state, Russell himself has become instrumental in the hands of the pro-establishment Urud mafia. For example, the information about Anjuman-e Taraqqi-e Urdu (a pro-establishment organisation from the day of its inception during the British period) was provided to him by the former chancellor of Jamia Millia Islamia who had been a king's man loyally committed to the government Being a faithful civil servant who had been union home secretary and governor of several states during Indira Gandhi's reign, he can be the best spokesman of the government. There is reason to believe that he has deliberately misinformed or withheld information about Anjuman-e Taraqqi-e Urdu by saying that this organisation receives little grant from the government. Russell should reckon with the fact that the multi-storeyed building of Anjuman namely 'Urdu Ghar' was bestowed by the government in the prime locality of New Delhi and the huge rent that 'Urdu Ghar' receives from various tenants is enough to run the institution smoothly. It will not be inappropriate to point out that there exists no spirit of public accountability in respect of management and expenditure of funds of this institution. In return for this benevolence showered by the Congress government the Anjuman was obliged to accommodate many prominent *Urduwallahs* loyal to the Congress Party who, in return to this favour, chose to elect only Congressmen as members, thus having monopolised Anjuman.

At another place Russell has failed to judge correctly another civil servant, S R Faruqi's statements because he is unaware of Faruqi's background as an ardent supporter of Indira Gandhi's notorious emergency rule. During the emergency, for his proximity to Sanjay Gandhi, he formed a National Writers' Forum and toured throughout India campaigning among Muslims for support for the emergency. He appealed to Urdu writers to join the forum and not to be *persona non grata* so as to avoid being put behind the bars. The interview given by S R Faruqi and quoted by Russell in his article was conducted after his retirement from the government and thus his pronouncements against government policies indicate his hypocrisy. How can he be relied upon? Furthermore, his elitism and anti-dalit stand is reflected by his declining the offer of the BSP government to become chairman of the UP Urdu Academy, while in the past he had been accepting such honorary posts offered by various Congress governments.

Really it is unfortunate that most Urdu writers tend to be pro-establishment seeking various benefits. To put it on record I would like to cite the example of Ali Sardar Jafri, the standard-bearer of the Progressive Writers' Association who recently has also received the Jnanpith Award. He was perhaps the only prominent writer in any vernacular language who had written a poem entitled *Harf-e Haq* ('A Word in Favour of Justice') praising the infamous rule of emergency and Sanjay Gandhi.

Yet another place where Russell has been deceived by his lack of adequate knowledge of the background is where he mentions the Gujral Commission. Now it is useless to talk about the Gujral Commission and its famous recommendations in favour of Urdu because it is as clear as broad daylight that they were never meant to be implemented – but only to fool Urdu-speaking people. By recommending for Urdu everything between heaven and earth, Gujral became the apple of the eyes of Muslims and it was the immense popularity thus gained that helped his ascendance to the prime ministership. As PM he never gave any thought to implementing his own recommendations. Only when he was dethroned with the UF government losing its majority in the house did he aspire to become PM again by playing the Gujral Commission card. But to his bad luck, by the time Muslims had lost faith in him. I was surprised to see this historic joke finding space in *EPW*

ALI IMRAN ZAIDI

Dodhpur, Aligarh

Exports without Export Promotion

THE latest amendment to the exim policy does make a contribution to improving the health of the economy, in spite rather than because of its policy instruments. As a hangover from dirigisme, Indian policy-makers continue to view exim policies primarily as means of promoting exports and earning/conserving foreign exchange. It is completely alien to the thought processes of the babus to see trade policy as a major determinant of allocative efficiency, the pace of economic growth and the ability of the growth that takes place to create jobs. Commerce minister Ramakrishna Hegde has cast his second exim policy in no different mould.

His most notable proposal is to remove quantitative import restrictions on 894 items and reduce such restrictions on another 414 items, even if it has been presented in a defensive fashion, as one that will not boost the import bill. This dismantling of quantitative restrictions leaves, according to the government, the surprisingly small number of 667 items on the negative list of imports. Another major proposal is to convert all Export Processing Zones into Free Trade Zones with effect from July 1. This has been hailed by industry, as if a few enclaves of freedom from the government would compensate for the irrationality of policy in general. Since all the trade unions have already, and rightly, raised objections to the proposal to free the Free Trade Zones from the regimen of labour legislation in the country, this is likely to join the list of proposals that are disposed of rather than realised. Another initiative that has been received well is to take special note of export of services, and encourage them by specifying the level of export performance that fetches recognition as an export house and accompanying concessions at one-third the level required for merchandise exports.

Other measures comprise rationalisation of procedure – exporters can avail of advance licence for a whole year, instead of supplicating before the DGFT every time they need to import something, an ombudsman at ports to sort out disputes with customs – and enhancement of concessions available to exporters – green cards, golden status for those who export designated volumes for designated periods, liberalised export promotion capital goods (EPCG) and Duty Entitlement Passbook (DEPB) schemes, sector-specific concessions for thrust areas like gems and jewellery, toys, drugs and textiles, harmonisation of the NFEP norms for EOUs and EPZs, liberalisation of value addition norms for export to Russia and administrative enhancement of the special import licence (SIL) premium.

The variety of schemes with their own rules, procedures, certificates of compliance and resultant benefits make for a veritable maze. To make one's way through this maze, it does not suffice that one excels in production and marketing. The chief quality called for is an ability to command mastery over rules and procedures or, more simply, over the goodwill of the babus who administer these schemes. The problem is not just that this raises the transaction costs of earning foreign exchange; rather, the problem is that such a regime converts exports into another source of corruption and degradation of society. It is more profitable to milk the schemes meant for export promotion than to export. It is not surprising that reports keep surfacing of export consignments lying unopened in Dubai godowns for years even as the exporter has not only brought home the payment for such exports but also claimed all the concessions for which the exports make him eligible. Money that had left our borders through illegal channels re-enters the country as legitimate, indeed honourable, tax-free export earnings that fetch additional subsidies. All that is required to be done is to package some junk as export consignments, bribe these over-invoiced exports' way past official inspectors and arrange for the service of remitting the hard currency payment.

Why is the country saddled with such a bizarre, costly way of earning foreign exchange? The explanation has to be traced to the original sin called export pessimism. India's policy-makers took it for granted that a developing country like India could not effectively be part of an international division of labour. This meant that the country had to try and produce on its own everything that it required and conserve foreign exchange at any cost. To encourage import substitution, the government offered domestic producers high levels of protection. To avoid 'wastage' of resources through 'unhealthy' competition, the government also instituted licensing of production. Protection from international competition and abortion of domestic competition have ensured that the country could earn foreign exchange through either aid or special inducements to those producers who condescend to export. When domestic prices are higher than global prices, a producer has no incentive to try and sell abroad. Further, since his input costs (save that of labour) are also higher than abroad, he is not cost-competitive in global markets. Further, the absence of competition from within or without has reduced his product quality to a level that is unacceptable anywhere else. The only way he can sell his goods abroad is to flog them at a huge discount to the domestic price. This he would, only if the government was prepared to compensate him for that discount through a variety of incentives. Thus incentives to promote exports is an integral part of high-cost import substitution. The self-defeating nature of such incentives manifests itself in many ways, including the alienation of state

governments from export promotion, as many incentives, like pre-emption of sales tax on goods going into export production, are at the expense of the states.

Hegde's exim policy sees that certain policies such as inflexible labour practices, small-scale reservations and restrictions on export of agricultural products constrain exports. But it falls far short of appreciating the basic problem with the country's strategy for exports. Therefore, its contribution to genuine restructuring of the economy to a situation where exports will take place on the merit of Indian producers' competitive strength is all the more remarkable. This contribution is the removal of quantitative restrictions at a faster pace than India had committed itself to within the framework of the World Trade Organisation. Which is just as well. A WTO dispute settlement panel has ruled, after the exim policy was announced, that India cannot justify any quantitative restrictions on imports on balance of payments grounds. The panel, however, concedes that India will need to phase out QR removals and has recommended that India negotiate the transition phase with the US, the country that had filed the dispute. The present aggressive move on QRs will give India some leeway in negotiations with the US, apart from opening up the economy to greater international competition. The fact that QRs have been lifted on the import of many items that are reserved for the small sector within the country will pave the way for faster removal of such irrational reservations – after all, it makes no sense to keep Indian industry out of segments of the Indian market that are accessible to foreign producers.

The latest exim policy is thus likely to do more for export promotion than its predecessors, even if not quite in the manner intended by its authors.

UTTAR PRADESH

Caste Tussle in BJP

HAVING managed to confine his political rivals in the state, Mulayam Singh Yadav and Mayawati, to their respective groves, Kalyan Singh, the BJP chief minister of UP has been facing more frequent trouble from his own party MLAs of late. The dissent within the party is taking the appearance of a clash of interests between the forward and the backward castes. But actually Kalyan Singh, who happens to be the party's only mascot from the numerously large backward castes, has been steadily expanding his influence with the help of his control over the government machinery, thus edging out his competitors within the party, who incidentally happen to be from the upper castes, the traditional base of the BJP.

Former state party president Kalraj Mishra, minister for urban development Lalji Tandon and present state president Rajnath Singh are all wary of Kalyan Singh's consolidation, lest it lead to the shrinkage of their own patronage. They are the ones who have an active interest in stoking uncertainty for Kalyan Singh. The frequent delegations of disgruntled legislators visiting the party's headquarters in Delhi, the rounds of signature campaigns seeking Kalyan Singh's removal from chief ministership, and the recent resignation of the minister for family and child welfare, Devendra Singh Bhole, on the eve of the party's national executive meeting in Goa, cannot but be interpreted as attempts by an increasingly impatient lobby of upper caste leaders within the party to pressurise the central leadership to rein in Kalyan Singh. Even the sympathies of the larger sangh parivar were solicited in order to corner the chief minister when he axed education minister Ravindra Shukla for bungling the Saraswati Vandana issue. Sensing the uncertainty of the BJP-led coalition at the centre and its need for new allies to stay afloat, the upper caste lobby in the state is manoeuvring to rope in the Bahujan Samaj Party in its toppling game. Yet, knowing well his strategic importance in getting the intensely contested backward caste votes for his party, Kalyan Singh seems confident that despite the propaganda against him, the party high command dare not encourage such dissidence, all the more so given the trying circumstances in which it finds itself at the centre.

The attempt to make out a case that Kalyan Singh is working against upper caste, especially brahmin, interests is not going to work, for Kalyan Singh is also nurturing brahmins under his wings. When Rajendra Tiwari was removed from the Lucknow district presidentship at the behest of state party president Rajnath Singh, Kalyan Singh had him appointed as the chairman of the essential commodities and food corporation. Similarly, Ram Kumar Shukla, who nursed a grievance for having been denied a ticket in the last assembly election by Lalji Tandon, was made chairman of the state consumer cooperative federation. Recently, when Bhole resigned as minister for family and child welfare in an attempt to turn the heat on Kalyan Singh, the latter replied by elevating Kusum Rai, one of his loyalists, to the post of chairperson of the state social welfare board.

Kalyan Singh on his part has not been lacking in efforts to cut his opponents to size. He has shown alacrity in filing FIRs against three party MLAs in the forefront of the campaign demanding his ouster. He has been equally prompt in shielding Aditya Nath, a party MP, who has been accused in the Maharajganj distric magistrate's report as well as in the FII filed by the police of instructing to fir at a Samajwadi Party meeting leading t the death of one head constable. His wel publicised drive against the criminal mafi in the state notwithstanding, Kalyan Singl is certainly not above protecting crimina elements within his party owing allegianc to him, as is evident from the extensio of additional security to the accused, on of Kalyan Singh's close aides, in th Brahma Dutt Tiwari's murder case. Th result is the further entrenchment o gangsterism in politics in a state that ha witnessed a steady spurt in crime in recen years.

CHILD TRAFFICKING

Easy Options

IT is useful that in the child traffickin scandal in Andhra Pradesh, there are easil identifiable villains in the shape of th heads of the organisations which trade in children. These persons bought an sold children and made profits. This i easy to condemn. What is much mor difficult to face is the culpability of par ents who sold their children. True th parents are poor, mind-numbingly poo and with little hope of betterment. But child's rights must be acknowledged an protected above all other considerations This must be borne in mind because according to the police, their main aim i to restore the children to their parents

But then where will the children go i not to their parents? The state is unable nay unfit, to take care of the children. Thi was demonstrated in the case of the chil dren recovered from the adoption centres

When the police walked in to bust thi racket, their reputation preceded them and the staff who had looked after th children ran away. These were employee and perhaps did not have as much to fea in a court case. But courts are far away, th police are close. It made sense to run. Th absence of the adoption centre staff mad the situation of the 'freed' children worse

The child and welfare departmen chipped in with its bit. It failed to delive provisions for the children after the adop tion centres ran out of basic necessities If it is procedures that held them up, wi these procedures be changed? If it wa dereliction of duty, will the officials re sponsible be punished? And why is ther not an emergency arrangement which ca cut through the red tape?

Chief minister Chandra Babu Naid 'helped' the children by publicly admon ishing the doctors at the Niloufer Hospital and the doctors went on a token strike protest. Naidu calculated right – it is mor popular to sympathise with a mothe

sobbing with her dead baby in her arms than to try to understand the doctors' problems. The doctors are educated, well-off and perhaps do not vote at all.

There is almost no information on the people who bought the children except that they are foreigners willing to pay Rs 1 lakh or more for a child. Do their home countries investigate the manner in which these children are adopted? Is legal action possible against these buyers in their own countries? The US customs team visiting India to find out if 'indenture' child labour exists in India will be better employed investigating the purchasers of third world children in its own country.

CRIME

The Unemployment Link

WHILE grieving over the tragic death of five unemployed youth in Mumbai, there is a genuine apprehension that the main issues behind the ghastly tragedy will be conveniently glossed over or may not even be touched upon. It seems that for some time now, a local thug in Mulund, a suburb of Mumbai, who also doubles as a political activist of a national party, was involved in a court case against one of his tenants. Tiring of the legal processes or perhaps apprehending an adverse outcome of the case, he decided to substitute muscle power for the legal procedures.

He went around and recruited over 50 unemployed youth from a hutment colony, promising them jobs as watchmen or as security guards on a handsome pay. He gathered them together in the early hours one day, got them to break open the locks on the shop of his contentious tenant and had started carting out the goods therein, confident perhaps that with his political clout, he would get away with taking the law into his own hands. But somehow things did not quite work out as per expectations. The police reached the spot after a while. In the melee that followed, the 'security men' recruited by the politician ran helter-skelter and some of them fell into a nearby well. Five of them could not swim and drowned. All the five around 19-20, moderately educated and unemployed.

The fact that all the young men were from a dalit community is not as significant as the fact that all were unemployed and desperately in search of jobs. It is a telling commentary on the job situation in the city and the country that one neighbourhood in one suburb of Mumbai can throw up literally hundreds of jobless youth desperate for a job, any kind of job, even one involving breaking into a shop in the early hours of the day, when hired to do so by a local political heavy. Yet, in the aftermath of the tragic event, the fact that a criminal act was being perpetrated with impunity by someone supposedly with political connections does not seem to have received as much attention as the caste of the victims. The fact that not only the person concerned but many others of the neighbourhood expected him to pull off the deed without a hitch, going to the extent of helping him in it, is a sad commentary on the state of law and order in the city.

Even though the police were on the spot at the time of the crime, they were unable to apprehend the main suspect. In fact, even after two days, the whereabouts of the person were unknown to the police. It has to be faced that, of late, the record of Mumbai police while tracking persons with political connections has not been the best. Not too long ago, they were unable to locate an MLA who was suspected of perpetrating a fraud on the co-operative bank he headed; similarly an academic who is politically active and who was accused of molesting a student, was also untraceable for some days. In both cases, the police could find out their whereabouts, by a strange coincidence, only after their applications for anticipatory bail could be moved in the court of law. What is noteworthy is that this inability of the police seems to be unaffected by the political colours of either the government in power or of the suspect.

Much is made of young men being easily attracted to a life of crime. With the legitimate job market not able to absorb even a fraction of the job-seekers entering the market, a jobless youth, his respect for law deadened by what he sees around him every day, cannot be entirely blamed if he is ready to explore any avenue to make a living.

While all this may be stating the obvious, the effort may not be entirely worthless when one sees the caste factor being played up in most of the reports of the tragic episode and in the reactions of politicians. Of course, in the prevalent political climate, any serious action on the main issues is unlikely. More likely, the tragedy will be looked upon as yet another atrocity against the dalits and after a while quietly shelved.

WAR AGAINST YUGOSLAVIA

The Economic Factor

A correspondent writes:

THERE is no theory of war which ignores the economic factors that ultimately lead nations to engage in war. One does not have to be a votary of the view that economic factors alone lead to wars to recognise the significant role that economic factors play even though the immediate causes may be non-economic.

The famous British economist John Maynard Keynes recognised the importance of economic factors behind wars. That is why in his solution for capitalism to survive when aggregate demand tended to get depressed, he spoke of digging holes in filling them, rather than resorting to war as a means of boosting aggregate demand. Right now there is high unemployment in practically all the EU countries. The overall average unemployment rate is over 10 per cent, and in countries like Spain it is over 20 per cent. Still if from time to time nations prepare for and resort to war, the huge cost involved notwithstanding, it testifies to the influence of the military-industrial complex in capitalist societies.

It is under the pressure of the military-industrial complexes in these countries that in spite of the end of the cold since 1989, there is no let up in the military budgets of the US and other NATO countries. That is why many people who expected that with the end of the cold war there would be enormous savings in the military budgets of the countries engaged in the cold war and that these savings will be diverted to the development of countries and sections of the people left behind in the race for economic prosperity feel betrayed. New grounds were found by the developed countries to continue having sizeable military budgets in spite of the end of the cold war. It is this sort of thinking that lies behind the continuing military build-up in the NATO countries.

It is also the same sort of reasoning that is behind the military actions taken under US leadership in different parts of the world. The military action against Yugoslavia is the latest in that series. It is possible that after the military action against Iraq, which in a sense is still not over, the military action against Yugoslavia may well turn out to be the most expensive. Going by the enormous size of the air- and sea-borne armada assembled for operations against Yugoslavia, there can be little doubt that when the costs of this operation are put together, they will add up to an enormous amount.

Of course, when one speaks of the cost of wars, one must take into account the destruction of lives and material that military action causes. Right now every morning one wakes up to hear of the destruction of infrastructure, including power plants, bridges and buildings in addition to the displacement of thousands of the civilian population. Ultimately the length of the war will be determined by the stamina of the warring parties. But the real winners will be the military-industrial complex, because for them the greater the destruction the larger will be the demands on them in the post-war era.

The developed market economies have continued to dominate world exports with a share of around 70 per cent in the 1990s with intra-trade amongst them being about 72 per cent of their total exports. However, this latter share has come down from a high of 77.5 per cent in 1990 while their exports to developing countries have increased to 24.2 per cent in 1995 from 19 6 per cent in 1990. Looking at developing Asia (excluding west Asia), the formation of different trade groups has led to 38.7 per cent of their exports going to their own economies in 1995 as compared with 24 per cent in 1980; this increase has been at the cost of Europe.

Macroeconomic Indicators

Index Numbers of Wholesale Prices (1981-82 = 100)	Weights	March 27, 1999	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
All Commodities	100.00	354.1	neg	5.0	5.3	5.0	5.3	5.3	6.9	5.0	10.4
Primary Articles	32.30	380.0	–0.3	9.3	5.5	9.3	5.5	5.5	7.0	5.4	12.7
Food Articles	17.39	439.2	0.1	11.7	4.0	11.7	4.0	4.0	9.6	9.8	11.9
Non-Food Articles	10.08	383.0	–1.1	7.5	8.5	7.5	8.5	8.5	3.5	–1.9	15.5
Fuel, Power, Light and Lubricants	10.66	379.5	0.9	–1.2	11.4	–1.2	11.4	11.4	16.9	3.7	2.4
Manufactured Products	57.04	334.7	0.1	3.8	4.0	3.8	4.0	4.0	4.9	5.0	10.7
Food Products	10.14	341.9	–0.2	4.9	5.5	4.9	5.5	5.5	14.1	–0.7	8.1
Food Index (computed)	27.53	403.4	neg	9.5	4.5	9.5	4.5	4.5	11.1	6.3	10.6
All Commodities (Average Basis) (April 4, 1998 - March 27, 1999)	100.00	352.3	–	6.9	4.8	6.9	4.8	4.8	6.4	7.8	10.9

Cost of Living Indices	Latest Month	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
Industrial Workers (1982=100)	415.0^2	–1.2	8.6	9.1	9.2	8.8	8.3	10.0	8.9	9.7
Urban Non-Man Emp (1984-85=100)	340.0^2	–0.6	8.6	7.6	9.0	7.6	7.2	10.2	8.2	9.9
Agri Lab (1986-87=100) (Link factor 5 89)	297.0^2	–0.7	8.8	3.8	9.2	4.2	3.8	10.5	7.2	11.1

Money and Banking (Rs crore)	March 12, 1999	Variation: Over Month	Over Year	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96
Money Supply (M_3)	953723@	9600(1.0)	149772(18.6)@	128333(15.5)@	102103(14.5)	123451(17.6)	97841(16.2)	72581(13.7)
Currency with Public	173232	3028(1.8)	23416(15.6)	28050(19.3)	17729(13.4)	13095(9.9)	13829(11.7)	17577(17.5)
Deposit with Banks	777649@	6825(0.9)	125940(19.3)@	101047(14.9)@	85142(15.0)	110036(19.4)	84162(17.5)	55042(12.9)
Net Bank Credit to Govt	387732	1060(0.3)	60053(18.3)	57113(17.3)	39060(13.5)	42000(14.6)	30840(12.0)	35360(15.9)
Bank Credit to Comml Sector	468669	5006(1.1)	48136(11.4)	36479(8.4)	44225(11.8)	55883(14.9)	31659(9.2)	51925(17.7)
Net Foreign Exchange Assets	141801	890(0.6)	21229(17.6)	15231(12.0)	15075(14.3)	21072(20.0)	23356(28.4)	3109(3.9)
Reserve Money (March 26)	245626	–2886(–1.2)	31016(14.5)	19393(8 6)	14624(7.3)	26248(13.1)	5527(2.8)	25176(14 9)
Net RBI Credit to Centre	148476	–4220(–2.8)	22543(17.9)	14860(11.1)	5231(4.3)	12915(10.7)	1934(1.6)	19855(20.1)
RBI Credit to Bks/Comm Sector	18175	–1676(–8.4)	3549(24.3)	2893 (18.9)	1373(10.4)	2029(15.3)	–15557(–54.0)	8747(43.6)
Scheduled Commercial Banks (March 26)								
Deposits	717271@	22064(3.2)	111861(18.5)@	111861(18.5)@	99811(19.7)	99811(19.7)	71780(16.5)	46960(12.1)
Advances	366003	13956(4.0)	41925(12.9)	41925(12.9)	45677(16.4)	45677(16.4)	24386(9.6)	42455(20.1)
Non-Food Advances	349187	14476(4.3)	37594(12.1)	37594(12.1)	40789(15.1)	40790(15.1)	26580(10.9)	44938(22.5)
Investments (for SLR purposes)	254119	1550(0.6)	35414(16.2)	35414(16.2)	28192(14.8)	28192(14.8)	25731(15.6)	15529(10.4)
Commercial Investments	48072	624(1.3)	16028(50.6)	16161(50.6)	13560(73.4)	13673(70.4)	4412(29.4)	925(6.6)

@ Includes Rs 17,945 crore on account of proceeds from RIBs, since August 28, 1998; excluding them the year-on-year and the 1998-99 fiscal year growth of money supply would be 16.4 per cent and 13.4 per cent respectively. Likewise, bank deposits without RIBs grew by 15.5 per cent for both periods.
Serious inconsistencies are noticed in the latest marketing and banking data which we hope will stand corrected soon

Index Numbers of Industrial Production (1993-94=100)	Weights	December 1998	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Full Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
General Index	100.00	150.0	139.2(3.5)	134.5(6.7)	137.6(6.6)	129.0(5.5)	122.3(12.8)	108.4(8.4)
Mining and Quarrying	10.47	127.0	117.3(–1.1)	118.6(5.5)	122.4(5.9)	115.6(–2.0)	117.9(9.6)	107.6(7.6)
Manufacturing	79.36	154.0	142.6(3.7)	137.5(6.9)	140.5(6.7)	131.8(6.7)	123.5(13.8)	108.5(8.5)
Electricity	10.17	142.4	135.8(6.6)	127.4(6.0)	130.0(6.7)	121.9(3.9)	117.3(8.1)	108.5(8.5)

Capital Market	April 9, 1999	Month Ago	Year Ago	1999-2000 So Far: Trough	1999-2000 So Far: Peak	1998-99: Trough	1998-99: Peak	End of Fiscal Year: 1998-99	1997-98	1996-97
BSE Sensitive Index (1978-79=100)	3441(–17.9)	3784	4194(14 9)	3441	3686	2783	4281	3740(–3.9)	3893(15.8)	3361(–0.2)
BSE-100 (1983-84=100)	1511(–17.4)	1639	1828(15.8)	1511	1634	1242	1890	1651(–2.7)	1697(15.9)	1464(–5.5)
BSE-200 (1989-90=100)	347(–14.8)	377	407(15.3)	347	376	289	429	380(0.8)	377(14.9)	328(–5.0)
S and P CNX-50 (Nov 3 1995=1000)	993(–16.4)	1078	1188(15.3)	993	1063	812	1213	1078(–3.5)	1117(15.4)	968
Skindia GDR Index (Jan 2, 1995=1000)	600(–40.8)	663	1015	600	655	515	1015	653(–30.5)	940(1.1)	930(–4.4)

Foreign Trade	February 1999	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
Exports: Rs crore	11969	126084(10 5)	114100(7.3)	126286(6.3)	118817(11.7)	106353(28.6)	82674(18.5)
US $ mn	2819	29950(–2.9)	30859(2.8)	33980(2.6)	33470(5.3)	31797(20.8)	26330(18.4)
Imports: Rs crore	13405	160283(16.4)	137651(10.6)	151554(9.1)	138920(13.2)	122678(36.3)	89971(23.1)
US $ mn	3157	38073(2.3)	37228(6.1)	40779(5.8)	39132(6.7)	36678(28.0)	28654(22.9)
Non-POL: US $ mn	2779	32794(8.8)	30136(14.4)	32562(11.9)	29096(–0.2)	29152(28.3)	22727(29.5)
Balance of Trade: Rs crore	–1436	–34199	–23552	–25268	–20102	–16325	–7297
US $ mn	–338	–8123	–6370	–6799	–5663	–4881	–2324

Foreign Exchange Reserves (excluding gold)	April 1, 1999	April 3, 1998	March 31, 1999	Variation Over: Month Ago	Year Ago	Fiscal Year So Far: 1999-2000	Fiscal Year So Far: 1998-99	1998-99	1997-98	1996-97	1995-96	1994-95
Rs crore	125487	103213	125446	6942	22274	41	702	22935	22137	21649	–7302	18402
US $ mn	29575	26134	29530	1702	3441	45	158	3554	3607	5243	–3690	5640

Notes: (i) Superscript numeral denotes month to which figure relates, e g, superscript 2 stands for February, (ii) Figures in brackets are percentage variations over the specified or over the comparable period of the previous year. na: not available. neg: negligible * unchanged.

Share of World Exports by Destination (Percentages)

Origin\Destination	World in Bn $	World Per Cent	Developed Market Economy Countries	Developing Countries and Territories: Total	Developing Countries and Territories: OPEC	Developing Countries and Territories: Other	Countries in Eastern Europe: Total	Countries in Eastern Europe: USSR (former)	Developed Market Economy Countries by Region: Europe: Total	Developed Market Economy Countries by Region: Europe: EU	Developed Market Economy Countries by Region: USA	Developed Market Economy Countries by Region: Canada	Developed Market Economy Countries by Region: Japan	Developed Market Economy Countries by Region: Australia, New Zealand	Developing Countries and Territories: America	Developing Countries and Territories: Other Developing Asia (other than west Asia)	Developing Countries and Territories: China
World																	
1980	2001	100.0	66.8	25.2	6.4	18.8	7.2	3.1	43.8	37.2	12.0	2.5	6.2	1.2	6.3	8.7	1.1
1990	3416	100.0	71.6	22.8	3.2	19.5	4.5	2.2	46.3	39.7	14.4	3.2	5.6	1.3	4.0	12.7	1.7
1995	4879	100.0	67.4	28.4	3.3	25.0	3.1	1.5	39.7	37.6	16.3	3.4	5.7	1.4	5.2	17.6	2.5
Developed market economy countries																	
1980	1259	100.0	70.8	25.1	7.9	17.2	3.4	1.7	51.6	43.1	9.8	3.4	3.2	1.4	6.1	7.7	1.1
1990	2445	100.0	77.5	19.6	3.3	16.3	2.0	1.1	54.2	46.2	12.6	4.1	4.2	1.4	3.9	9.7	0.9
1995	3349	100.0	72.0	24.2	3.2	21.0	2.6	1.0	47.3	44.6	13.8	4.4	3.9	1.4	5.4	13.4	1.5
Developing countries and territories																	
1980	587	100.0	68.4	26.5	3.9	22.6	3.9	2.3	31.7	29.4	19.8	1.2	14.0	1.2	7.6	11.7	0.7
1990	789	100.0	61.2	33.5	3.4	30.0	3.5	2.4	24.6	22.6	22.9	1.2	11.0	1.2	4.1	23.1	3.3
1995	1362	100.0	57.9	39.6	3.8	35.8	1.7	1.0	20.2	19.7	23.9	1.2	10.7	1.4	5.1	28.7	5.0
OPEC																	
1980	307	100.0	75.3	22.8	1.3	21.5	1.2	0.3	37.2	34.6	18.4	1.5	17.3	1.0	8.4	9.5	0.1
1990	172	100.0	66.4	27.6	1.7	25.8	1.6	0.4	30.6	29.3	21.6	0.7	12.9	0.7	4.6	15.2	0.7
1995	206	100.0	66.6	30.4	4.2	26.2	1.3	0.3	27.2	26.8	20.2	0.6	17.4	1.1	5.0	17.3	0.8
Other developing countries and territories																	
1980	280	100.0	60.7	30.5	6.7	23.7	6.9	4.5	25.7	23.7	21.3	1.0	10.5	1.5	6.7	14.2	1.4
1990	617	100.0	59.7	35.1	3.9	31.2	4.0	3.0	22.9	20.8	23.2	1.4	10.5	1.4	4.0	25.3	4.0
1995	1157	100.0	56.4	41.3	3.8	37.5	1.8	1.1	19.0	18.4	24.5	1.3	9.5	1.5	5.1	30.7	5.7
Countries in Eastern Europe																	
1980	155	100.0	27.9	20.9	3.2	17.7	50.7	17.4	25.6	19.3	0.9	0.2	1.1	0.1	3.3	4.7	2.7
1990	183	100.0	37.7	19.3	1.6	17.7	42.5	15.4	34.0	27.2	1.5	0.2	2.0	0.1	4.7	7.5	4.9
1995	168	100.0	52.8	19.4	1.6	17.9	25.6	15.7	46.0	43.3	3.9	0.3	2.1	0.1	1.5	11.0	2.4
USSR (former)																	
1980	76	100.0	32.0	25.8	2.3	23.5	42.2	0.0	29.7	22.6	0.3	0.1	1.9	0.0	4.8	6.0	3.2
1990	104	100.0	41.3	24.5	0.9	23.6	34.2	0.0	37.0	31.0	1.1	0.1	3.0	0.1	7.1	10.5	7.2
1995	100	100.0	46.7	21.6	1.2	20.4	30.1	19.8	38.1	35.9	4.7	0.2	3.0	0.1	1.7	13.9	3.4
Europe: developed market economy countries																	
1980	802	100.0	76.7	18.6	7.5	11.1	3.9	1.8	67.4	55.6	5.5	0.7	1.0	0.8	3.2	3.1	0.4
1990	1578	100.0	83.2	13.0	3.1	9.9	2.6	1.2	71.3	60.3	7.1	0.9	2.2	0.8	1.9	4.4	0.5
1995	2076	100.0	79.5	15.3	2.8	12.4	3.9	1.3	67.1	63.2	7.5	0.8	2.1	0.8	2.5	6.7	0.8
European Union																	
1980	690	100.0	76.5	19.2	7.9	11.4	3.5	1.6	67.0	55.8	5.6	0.7	1.0	0.8	3.2	3.1	0.4
1990	1351	100.0	83.1	13.3	3.2	10.1	2.2	1.0	71.2	60.7	7.1	0.9	2.1	0.8	1.9	4.4	0.5
1995	1953	100.0	79.2	15.7	3.0	12.7	3.6	1.2	66.9	63.0	7.5	0.7	2.0	0.8	2.6	6.6	0.7
United States																	
1980	217	100.0	59.5	38.2	8.1	30.2	1.8	0.7	30.0	26.7	..	15.7	9.5	2.1	17.6	12.6	1.7
1990	374	100.0	64.7	34.0	3.6	30.5	1.1	0.8	27.7	24.8	..	20.9	12.3	2.5	14.0	15.5	1.3
1995	584	100.0	58.1	40.9	3.9	37.0	1.0	0.6	22.4	21.1	..	21.5	10.6	2.3	18.4	18.1	1.6
[illegible]																	
1980	65	100.0	85.1	11.7	2.9	8.8	2.7	2.0	14.5	13.2	63.4	..	5.7	1.0	5.1	4.0	1.1
1990	127	100.0	91.1	8.0	1.3	6.7	0.9	0.8	9.6	8.1	75.0	..	5.5	0.7	1.8	4.7	1.1
1995	191	100.0	92.7	7.1	1.3	5.8	0.2	0.1	6.1	5.7	81.7	..	4.3	0.5	2.0	4.0	0.9
Japan																	
1980	130	100.0	47.5	49.8	14.2	35.5	2.8	2.1	16.5	14.0	24.5	1.9	..	3.1	6.6	28.1	4.3
1990	287	100.0	59.3	39.5	4.7	34.8	1.2	0.9	21.8	18.8	31.7	2.3	..	2.8	3.4	31.1	2.3
1995	443	100.0	52.3	47.1	4.8	42.3	0.8	0.4	17.8	16.7	29.5	1.8	..	2.5	4.4	37.5	4.2
Australia, New Zealand																	
1980	27	100.0	58.2	31.1	6.8	24.3	5.7	4.8	16.2	15.6	10.5	2.0	22.7	6.1	1.3	17.8	3.8
1990	48	100.0	61.8	35.3	5.6	29.7	1.5	1.0	16.5	14.3	11.5	1.6	24.9	7.0	1.5	25.8	2.4
1995	67	100.0	56.0	41.9	4.9	37.0	0.6	0.5	13.3	12.9	8.2	2.0	23.8	8.1	1.7	33.3	3.6
Developing America																	
1980	108	100.0	64.4	27.5	3.3	24.1	6.5	4.8	24.2	22.2	32.3	2.6	4.2	0.2	21.3	2.0	0.7
1990	134	100.0	70.2	22.9	3.1	19.8	4.7	3.2	24.0	22.3	38.4	1.5	5.3	0.3	15.1	4.6	0.9
1995	196	100.0	70.7	28.0	2.7	25.3	0.6	0.3	17.6	16.6	52.3	1.6	4.0	0.3	19.6	6.2	0.9
Other developing Asia (other than west Asia)																	
1980	162	100.0	59.8	35.5	7.0	28.5	3.8	2.5	16.9	15.3	18.9	1.1	20.1	2.4	2.5	24.0	1.7
1990	451	100.0	57.0	39.3	3.2	36.1	2.5	2.0	17.2	15.4	22.0	1.5	14.3	1.8	1.6	33.2	5.4
1995	923	100.0	52.2	45.7	3.5	42.2	1.8	1.3	15.5	14.9	21.2	1.3	12.0	1.7	2.5	38.7	6.9
China																	
1980	18	100.0	45.9	46.7	6.7	40.0	7.3	1.3	15.2	13.8	5.9	0.7	22.9	1.3	2.0	33.1	..
1990	62	100.0	34.3	58.8	2.3	56.5	5.1	3.6	9.9	9.1	8.3	0.7	14.5	0.8	1.2	54.4	..
1995	163	100.0	51.8	46.1	2.8	43.3	2.1	1.4	13.4	13.2	18.1	1.2	17.2	1.4	2.1	40.5	..

For China, 1995 data relate to 1994. .. not available

Source: *UNCTAD Handbook of International Trade and Development Statistics*, 1995.

NAGARJUNA FERTILISERS

Lower Production

THE Hyderabad-based Nagarjuna Fertilisers once again witnessed a drop in its profitability in 1997-98. After its net profit dropped significantly in 1996-97, the company seems to have been unable to change the trend. In fact, while net sales had improved in the previous year, it actually dropped by 13.7 per cent in 1997-98. It was all downhill from there. While operating profit declined by 30.3 per cent over the same period, net profit was lower by 24.3 per cent. This despite a drastic fall in depreciation (down 92.2 per cent) and tax provision (down 63.7 per cent). Though earnings per share declined from Rs 4.9 to Rs 3.7, the company maintained the dividend rate at 18 per cent.

The company attributes the fall in its turnover to lower production during the year. With the restrictions of the government on the offtake of urea to be limited to 115 per cent of capacity, the company's urea production dropped from 7.17 lakh tonnes in the previous year to 6.89 tonnes in 1996-97, representing a drop of 4 per cent.

Meanwhile the company's expansion project for doubling its fertiliser manufacturing facilities at Kakinada (Andhra Pradesh) was completed during the year within the estimated cost and began commercial production on March 19, 1998.

The company issued 6,95,00,000 warrants to the promoters on preferential basis during the year. It claims that this was done to ensure stability and continued direction to the company. The promoters will be entitled to convert each warrant of Rs 15.71 into one equity share of Rs 10 within 18 months from the date of allotment of the warrants. The move will increase the promoters' stake from around 29 per cent to 42 per cent of the enhanced capital.

The company has now embarked on a diversification project in order to take advantage of synergy of operations. It is setting up a world class refinery conforming to international standards at Cuddalore in Tamil Nadu through Pennar Refineries, along with the Tamil Nadu Industrial Development Corporation. The project is estimated to cost approximately Rs 3,200 crore and is being set up with financial assistance from domestic and overseas financial institutions and banks. In addition to this, Nagarjuna Fertilisers is also undertaking the implementation of a 1,000 MW power plant at Mangalore.

Meanwhile, the company's performance seems to have improved in 1998-99. For the first three quarters of the year the company has notched up an impressive 34 per cent increase in net sales over the corresponding period of the previous year. Though interest (up 67 per cent) and depreciation (up 88 per cent) increased significantly, the company managed to improve its bottomline by 24 per cent over the same period from Rs 98.95 crore to Rs 122.8 crore. The warrants issued to the promoters earlier were converted into 50,75,000 equity shares of Rs 10 each at a premium of Rs 5.71 per share in December 1998.

The company's stock presently quotes at around Rs 15 on the bourses, discounting its 1997-98 earnings by a mere 4.1 times.

GODFREY PHILLIPS INDIA

Steady Growth

Cigarette major Godfrey Phillips India is a part of the K K Modi group of companies while Phillips Morris of the US holds a 36 per cent stake in the company. Godfrey Phillips is known for brands such as Four Square and Red & White in the premium segments and Cavenders in the popular lower segment. The company draws up to 90 per cent of its turnover from cigarettes and the balance from tobacco and tea. Its blended tea is sold through the Tea City franchise. In addition the company also has a minor presence in real estate. In the cigarettes segment, however, the company is next only to ITC, and commands a market share of 15-17 per cent.

The company has witnessed a steady growth over the years. For the year 1997-98, the company notched up a 14.3 per cent increase in net sales. Operating profit improved by 22.5 per cent and with interest costs falling by 33.6 per cent, the company managed to post a 70.7 per cent increase in its bottomline during the year under review. With earnings per share improving from Rs 21.9 to Rs 37.4, the company decided to raise the dividend rate from 70 per cent to 100 per cent. Book value, meanwhile improved from Rs 96.6 per share to Rs 122.9 per share. The company share price currently rules around Rs 768 on the bourses, discounting its 1997-98 earnings by a comfortable 20.6 times.

Sale of cigarettes by the company, in volume terms, rose from 12,962 million during the previous year to 13,100 million in 1997-98, which is an increase of 1 per cent. In value terms, however, the rise was much higher at 15 per cent.

The cigarette industry is fragmented in line with the excise structure. The premium segment comprises king-sized and premium brand cigarettes while the popular segment comprises smaller sized cigarettes. The popular varieties account for over 85 per cent of total sales.

GOODLASS NEROLAC PAINTS

Good Performance

The second largest paints company in the country, Goodlass Nerolac Paints performed well in 1997-98. While net sales increased by 7.3 per cent over the previous year, operating profit improved by 7.6 per cent. A fall in interest (down 1.5 per cent) depreciation (down 14 per cent) and tax

Financial Indicators	Nagarjuna Fertilisers March 1998	Nagarjuna Fertilisers March 1997	Godfrey Phillips India March 1998	Godfrey Phillips India March 1997	Goodlass Nerolac Paint March 1998	Goodlass Nerolac Paint March 1997
Income/appropriations						
1 Net sales	79588	92249	45464	39772	40322	37580
2 Value of production	77667	86444	45953	39682	40139	37643
3 Other Income	2899	2688	895	845	826	672
4 *Total income*	80566	89132	46848	40527	40965	38315
5 Raw materials/stores and spares consumed	8289	7855	14638	13065	16806	16655
6 Other manufacturing expenses	31645	27797	9082	7631	8629	7530
7 Remuneration to employees	2027	1846	2517	2137	2849	2504
8 Other expenses	10453	11262	14005	12299	7283	6610
9 *Operating profit*	28152	40372	6606	5395	5398	5016
10 Interest	14518	14254	456	687	800	812
11 *Gross profit*	13674	26171	6146	4349	4653	4232
12 Depreciation	596	7661	211	204	332	386
13 *Profit before tax*	13078	18510	5935	4145	4321	3846
14 Tax provision	868	2390	2050	1869	1200	1420
15 *Profit after tax*	12210	16120	3885	2276	3121	2426
16 Dividends	6576	6561	1144	801	1049	806
17 Retained profit	5634	9559	2741	1475	2072	1620
Liabilities/assets						
18 Paid-up capital	33147	33137	1040	1040	1530	1352
19 Reserves and surplus	62116	56565	11981	9240	13759	10632
20 Long-term loans	122235	91965	333	272	4962	2677
21 Short-term loans	10532	14160	3437	3556	1603	2895
22 Of which bank borrowings	10532	14160	3437	3556	1603	2395
23 Gross fixed assets	219653	174676	4909	4439	10000	7553
24 Accumulated depreciation	33858	33216	2214	2098	2894	2549
25 Inventories	15752	14174	11707	9048	6872	6340
26 Total assets/liabilities	267069	222492	26582	23583	29721	26123
Miscellaneous items						
27 Excise duty	NA	NA	55996	47951	6920	7120
28 Gross value added	29541	41656	9355	7109	8200	7572
29 Total foreign exchange income	66	16	3181	2863	525	718
30 Total foreign exchange outgo	14057	22594	1323	1474	5521	5142
Key financial and performance ratios						
31 Turnover ratio (sales to total assets) (%)	29 80	41.46	171.03	168 65	135.67	143.86
32 Sales to total net assets (%)	34.90	47 11	270.76	281.91	184.51	214.06
33 Gross value added to gross fixed assets (%)	13 45	23.85	190 57	160.15	82.00	100 25
34 Return on investment (gross profit to total assets) (%)	5.12	11.76	23 12	18.44	15.66	16.20
35 Gross profit to sales (gross margin) (%)	17.18	28.37	13.52	10.93	11.54	11.26
36 Operating profit to sales (%)	35 37	43.76	14.53	13.56	13.39	13 35
37 Profit before tax to sales (%)	16 43	20.07	13.05	10.42	10.72	10.23
38 Tax provision to profit before tax (%)	6 64	12.91	34.54	45.09	27 77	36.92
39 Profit after tax to net worth (return on equity) (%)	12 82	17.97	29.84	22.14	20.41	20.24
40 Dividend (%)	18 00	18.00	100 00	70.00	65.00	60.00
41 Earning per share (Rs)	3 68	4.86	37 36	21 88	20.40	17.94
42 Book value per share (Rs)	28 74	27.07	122 93	96.58	95.86	83.92
43 P/E ratio	4.07	NA	20.56	NA	7.21	NA
44 Debt-equity ratio (adjusted for revaluation) (%)	128 31	102.52	2.60	2.71	33.83	23.59
45 Short-term bank borrowings to inventories (%)	66 86	99.90	29.36	39.30	23.33	37.78
46 Sundry creditors to sundry debtors (%)	314.65	120.21	749 56	423.21	108.50	138.31
47 Total remuneration to employees to value added (%)	6.86	4.43	26.91	30.06	34.74	33 07
48 Total remuneration to employees to value of production (%)	2.61	2.14	5.48	5.39	7.10	6.65
49 Gross fixed assets formation (%)	25.75	40.11	10.59	13.10	32.40	38.94
50 Growth in inventories (%)	11.13	–30 32	29.39	14.73	8.39	–2 34

NA: means not available.

company post a higher bottomline too. Consequently, net profit was higher by 28.7 per cent and earnings per share rose from Rs 17.9 to Rs 20.4 over the same period.

Encouraged by its performance, the company raised the dividend rate from 60 per cent last year to 65 per cent. Book value, meanwhile, increased from Rs 83.9 per share to Rs 95.9 per share. The company's equity share presently quotes at around Rs 147 on the bourses, discounting its 1997-98 earnings by 7.2 times.

The company is the market leader in industrial paints, which is the fastest growing segment within the industry. The paints industry itself is divided into two segments, namely, industrial and decorative. While the decorative segment accounts for 70 per cent of the market, industrial paints account for the balance 30 per cent. This ratio is expected to balance out to 50:50 in the next 5-10 years.

Despite the higher profitability, one area where the company has not performed well is organic and inorganic pigments. The company had set up a capacity to manufacture 1,680 tonnes of inorganic pigments and 350 tonnes of organic pigments, which are inputs in the manufacture of paints. The company's realisation from inorganic pigments fell by 14.6 per cent while that from organic pigments declined by 4 per cent in 1997-98. Moreover, captive consumption just accounted for 41 per cent of inorganic pigment production and 18 per cent of organic pigment production. In a strategic decision, the company has now decided to shut down the organic and inorganic pigment unit and sell off the real estate. The plant is built on 27 acres of land and the proceeds could be used to meet working capital requirements or retire some of its debt.

The company joined the other big paint majors in the instant shades market following the launch of Nerolac Colour Scape, an integrated colour matching system designed to be a one-stop colour shop. Ever since Jenson & Nicholson's Instacolor in late 1996 and Berger Paints' Colour Bank, tinting machines have become the marketing device for all paint majors. Colour Scape will cost the dealer Rs 5.9 lakh, compared with Asian Paints' Colour World which costs 6.5 lakh and Jenson & Nicholson's Instacolor which costs Rs 8 lakh.

Meanwhile, the company's new manufacturing unit at Lote Parshuram in Maharashtra, for the manufacture of paints, varnishes and enamels, commenced commercial production on April 29, 1998.

Debt Defaulters as Darlings of Society

D N Ghosh

The debtor-creditor relationship is becoming increasingly complex and the promise to pay is fast losing its sanctity.

A UNIQUE experiment in prison reform: Dubai has, it appears, decided to establish a state-of-the-art business centre for prisoners who had once shot into limelight as market savvy financial engineers but defaulted on their debt obligations. These jailed geniuses will be encouraged to run legal businesses from within prison walls; their creativity will not go rusty. Think of the beneficial fallout of this decision: why would then an evil genius take the risk of a death sentence for a few ounces of heroin when he can probably earn millions in the sanctuary of the jail premises?

What a contrast to our conventional thinking on debt distress and imprisonment! No religion has ever taken kindly to usury or to the temptation to borrow. For centuries societies have required debtors to honour their obligation or face imprisonment and accept life-long obligation to repay. Charles Dickens weaves a poignant story in Little Dorrit on Marshalsea, the debtors' prison in Southwalk. Most of the prisons were like dungeons; even the Fleet Street prison, which was meant for debtors relatively more respectable in the social ladder, was called the grave of the living. Till the 17th century it was not uncommon to inflict barbaric punishment on debtors for fraudulent concealment or embezzlement: to use the words of Sir William Blackstone, "unless it appeared that the inability of the bankrupt to pay his debts arose from some casual loss, he might upon conviction by indictment of such gross misconduct and negligence, be set upon the pillory for two hours, and have one of his ears nailed to the same and cut off".

From about the late 18th and the begining of the 19th century, social reformers had been agitating on humanitarian considerations for relieving distress of debtors; progressively the polity moved away from a system that locked up debtors and the bankrupt unless they paid every penny. The relief from draconian punishment helped encourage persons to borrow financial resources to exploit the new emerging opportunities in the industrial revolution era and help foster entrepreneurial and creative activities. *The Times* noted in its editorial on July 19, 1844 that the country was now set to progress from the age of barbarity to one of civilisation.*

While supporting the prison reform movement, John Stuart Mill, while supporting the reform, expressed concern that in going into a violent reaction against the ancient severity, the reform measures might generate in debtors "a peculiar title to indulgence" in losing or squandering other people's property. To quote Mill, "The indulgence of laws to those who have made themselves unable to pay their just debts is usually defended on the plea that the sole object of the insolvency law could be to get at his property and distribute it fairly among his creditors. ...It is the business of law to prevent wrongdoing and not simply to patch up the consequence when it has been committed; to take care that insolvency should not be a good pecuniary speculation; *that men should not have the privilege of hazarding other peoples' property without their knowledge or consent, taking the profits of the enterprise if successful and throwing the loss on the rightful owners if it fails*" (emphasis added).

Mill's observations are something to ponder over, particularly by those concerned with the health of our financial system. For centuries the debtor-creditor relationship had been based on the unquestioned acceptance of a promise to pay underlying the bill of exchange: Regarded as one of the most fundamental innovations in the evolution of the financial system, it has been the universally accepted procedure for settlement for trade and other transactions across different countries and trading centres. Debt has an embedded option, you can choose not to repay. That right of choice is inherent in a market economy, but those who exercise that choice must be made to pay for the consequences of that choice. Limited liability and permissive bankruptcy laws have led to a spurt of so-called innovative activities where borrower-creditor relationships get rewritten all the time in a complex set of legal and technical fine print. The creation of a legal facade as a protective shield has become an obsessive game by itself. In the mountains of debt that are being piled up, the issuers, investors and underwriters have to talk, write, and document in the finest of fine print, the rights of creditors and the obligations of debtors. The newly emerging tribe of financial engineers-cum-legal luminaries, functioning as advisors to debtors, know all the tricks of the trade to teach them how to walk away from the repayment obligation. The battle of wits between the debtors and creditors start from the beginning itself; debtors always on the look out for safe and honourable escape routes and in the end, when the chips are down, the enforcement of obligations becomes a nightmarish experience.

What is happening all around us is a matter of grave concern. The debtor-creditor relationship is becoming increasingly complex and intricate and in the evolving pattern the principle of promise to pay is fast losing its pristine sanctity. One learns all too soon not to bat an eyelid in deciding to walk from any repayment obligation. Owning large sums of money and not caring a damn is the accepted way of making sure that the person is one of the top people in the social hierarchy. They are always ready with frivolous reasons for non-payment of dues, like Algernon in Oscar Wilde's play *The Importance of Being Earnest*, "Pay it? How on earth am I going to do that? No gentleman ever has any money." The nonchalance of debtors is becoming legendary. It is prevalent in virtually every sector of our society. The vast majority of our people do not feel responsible to pay their dues. They expect the state to provide all kinds of services and believe that it is their birthright to have free access to these facilities.

Debtors are emerging as the darlings of the economy. There is no place for debtors with weak hearts, those who ruminate on possible social stigma and its consequences; the new world that is emerging

* Hugh Barty-King, *The Worst Poverty: A History of Debt and Debtors*, Sutton Publishing, 1991.

belongs to the daring, the more massive their indebtedness, the more honourable they are in the pecking order. Debtors and financial engineers have emerged as congenial partners. Nothing happens to those who play about with astronomically high debt funds and create havoc for the system. Wiser after the event, the actors and law-makers become engrossed in learned discussions on information flows and their asymmetries, regulatory slippages, disclosure standards, transparency and all that but what recedes into the background is the stark fact that those who were primarily responsible for taking risks and playing with high stakes, those who knew the consequences of their actions when the bubble was pricked, escape unhurt except for some passing inconvenience or unpalatable press comments. They shrug it off as a bad dream and bide their time to regroup themselves for launching, with more vigour than ever before, on another bout of innovative frenzy.

We all know too well that debtors have emerged as one of the most powerful interest groups in our society. Their connections with the political class are their most precious asset. Look at the way we talk and deal with the debtors to the banking system. The expression non-performing assets, for example, takes out the sting, shifting the focus of accountability on to the creditors. With schemes of restructuring, rescheduling, reclassification and the whole array of innovative products coming under the umbrella of securitised assets, the drama of covering up debt defaults goes on all the time, all across the financial system. While upgrading the quality of balance-sheets, it also simultaneously upgrades the respectability status of individual debtors or corporates and covers up their deception games.

The integrity of credit is the key to the smooth functioning of the economy and economic actors have to accept, as a trade-off for freedom and flexibility, a commitment to preserve it. They have to act responsibly and they can be made to do so if the political class behaves responsibly. Our polity has to continually devise mechanisms to ensure that the price for misusing credit raised from the resources of the society is made prohibitively high and the punishment meted out is exemplary. The rules in the battle of wits are changing fast and our investigation and enforcement agencies have to match the skills and agility of the new emerging breed of reckless financial engineers. Our polity must be willing and committed to address itself to this task, but clearly, as we look around us, this ranks low in our scheme of reform priorities. The recent debate and discussion on the nature of punishment for offences on money laundering is an eye-opener. Smitten perhaps by a bout of political humanitarianism the political class has opted for relaxation of the investigation and enforcement mechanism. It would surprise none if they shed tears for those unfortunate enough to be caught in the net and opt to emulate the Dubai example of a protective and comfortable sanctuary for debt defaulters and scamsters. Take hint, financial engineers, be bold and put prison reform at the top of your economic reform agenda.

Decisive Measures Ensure Stability

In a fragile, structurally deficient environment, decisive steps taken to modulate market expectations alone can restore a semblance of discipline and stability in the financial sector.

I
1998-99: A Unique Experience

THE financial year 1998-99 has ended with some unique features in the money market experience, which have helped to negate the worst market fears nursed in the early part of the year. What has made this possible in itself provides an illuminating lesson, which is that in a fragile, structurally deficient environment, decisive steps taken to modulate market expectations alone can restore a semblance of discipline and stability in the financial sector. In earlier years, whether in regard to yield rates on sovereign papers, or on call money rates, or on the rupee's exhange rate determination, the policy signals were those of a free play for the market forces which had, very often with the slightest of provocations, resulted in dramatic disturbances and gyrations in rates of interest or in exchange rate of the rupee. During the past year or so the RBI has sent out firm signals of its readiness to take decisive steps to curb speculation and arbitration between markets and has in fact administered doses of such steps, the benefits of which have been reflected in the orderly conditions that have prevailed in the financial markets during the past year or so.

Amongst the distinguishing features of the money market trends in 1998-99, there was the unprecedented gross market borrowing by the central government of Rs 93,953 crore or net borrowing of Rs 62,903 crore. This was accomplished along with significant reductions in coupon rates and elongation of maturity periods of securities. The instrument of success was the RBI's willingness to accept initial devolvement or even private placement of government paper with the objective of their orderly release to the market from time to time. Thus the RBI took on Rs 38,205 crore (or 45.6 per cent) out of Rs 83,753 crore of the gross long- and medium-term borrowings; of the amount so subscribed by the RBI as much as Rs 26,384 crore (or 69 per cent) have already been sold to the market through open market operations (OMOs).

It may be argued that such an achievement was made possible because of the excess liquidity available in the system, but this was only partly true. First, in the past even when liquidity was excessive, market expectations were stimulated by the RBI's policy stance of allowing the free play of market forces and hence the cut-off yield rates were allowed to remain high. Secondly and more significantly, the overall deposit growth of scheduled commercial banks during 1998-99 has not been higher than that in the previous year; it was Rs 1,11,861 crore or 18.5 per cent against Rs 99,811 crore or 19.7 per cent in 1997-98. This was inclusive of Rs 17,945 crore as proceeds of Resurgent India Bonds (RIBs). In fact, excluding those RIB proceeds, deposit growth with banks in 1998-99 were significantly lower both in absolute and relative terms: Rs 93,916 crore or 15.5 per cent against Rs 99,811 crore or 19.7 per cent in the previous year. Banks' total assistance to the commercial sectors remained at Rs 54,318 crore or 15.8 per cent compared with Rs 53,882 crore or 18.6 per cent.

The other noteworthy achievement of 1998-99 have been the tight leash kept on the call money market through the policy of fixed-rate repos and that on arbitration between the money and forex markets including strong measures relating to rebooking of cancelled contracts for non-trade transactions and even trade transactions covering imports.

Other Developments

First, the RBI has kept unchanged the limit for ways and means advances (WMAs) in respect of the central government for the financial year 1999-2000 at the last year's levels of Rs 11,000 crore for the first half (April-September) and Rs 7,000 crore for the second half (October-March) of the year. The government's use of 75 per cent of the limit will trigger a fresh floatation of market loans depending on market conditions. The interest rate on WMAs will be charged at the Bank rate (8 per cent at present) and that on overdraft at the Bank rate plus two percentage points. The government, however, will have to keep a minimum balance with the RBI of not less than Rs 100 crore against the previous Rs 50 crore on Fridays and not less than Rs 10 crore on other days against the earlier Rs 4 crore. The RBI will also not allow, as in the past, overdrafts beyond ten consecutive working days from April 1, 1999.

Second, a technical committee set up to determine prudential guidelines for issue of guarantees by state governments has recommended, among other things, four

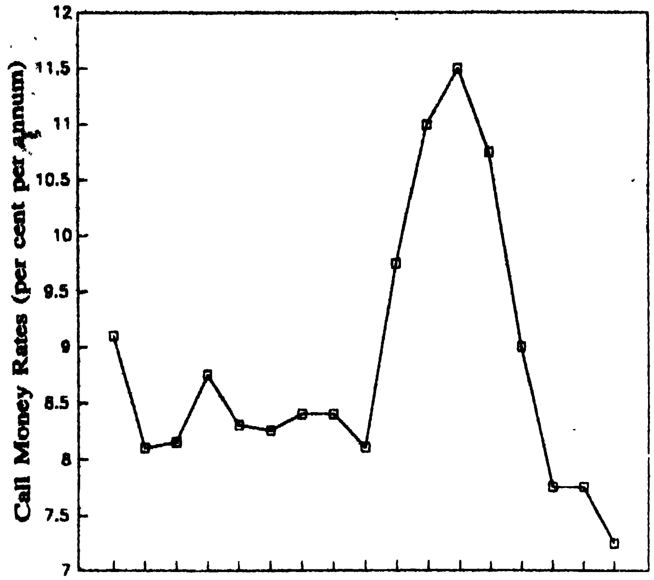
Table 1 Estimated Flow of Liquidity into the Financial System during March 1999

(Rupees crore)

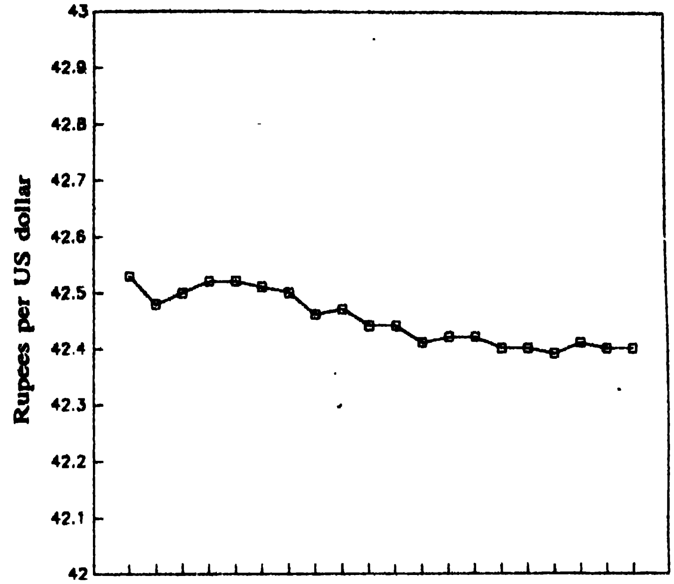
Week Ended	26			19			12			5		
	Inflow	Outflow	Net	Inflow	Outflow	Net	Inflow	Outflow	Net	Inflow	Outflow	Net
Auctions and Redemptions												
14-day T-bills	500	50	450	100	300	–200	500	500	0	100	100	0
91-day T-bills	364	50	314	400	100	300	425	140	285	425	78	347
364-day T-bills	50	440	–390	–	–	–	0	750	–750	–	–	–
Government securities	–	–	–	–	–	–	–	–	–	–	–	–
Coupon Payments	777	–	777	227	–	227	383	–	383	451	–	451
CRR Cut	–	–	–	3400	–	3400	–	–	–	–	–	–
Advance Tax Payments	–	–	–	–	5000	–5000	–	–	–	–	–	–
Net Foreign Assets (Variation)	1331	–	1331	1270	–	1270	4	–	4	449	–	449
Total	3022	540	2482	5397	5400	–3	1312	1390	–78	1425	178	124[illegible]
Memo Items												
Open Market Operations (RBI)	–	260	–260	–	60	–60	–	2018	–2018	–	558	–55[illegible]
Repos by RBI	–	170	–170	25	0	25	131	121	10	1855	1604	251

Note A negative sign implies net outflow. – means nil.

Graph A: Daily Top-End Quotations of Call Money Rates, March 1999



Graph B: Spot Quotations for the US Dollar in the Domestic Inter-Bank Market – March 1999



parameters for fixing a ceiling on guaranteed amounts. The committee has also recommended that guarantee fees should be charged and that a contingency fund for repayment of guarantees should also be created at the state level. It has suggested that no letters of comfort should be given by states; rather, in such cases, credit enhancements should be given through explicit guarantees. According to the technical committee, full details of all guarantees given by a state should be disclosed in the state budget.

Thirdly, on March 31, the government announced that non-government provident funds, gratuity funds and superannuation funds will now be allowed to invest in [illegible]approved units of gilt funds. This will be within the limit of 25 per cent of their corpus allowed to be invested in government securities. From the balance, non-government PFs are allowed to invest 15 per cent in state government securities, 40 per cent in PSU bonds,

10 per cent in corporate bonds with trustee approval and another 10 per cent in any other paper. The move will give a boost to the gilt funds and will also broadbase the government securities market. Kotak Mahindra Mutual Fund already has a money market mutual fund.

Finally, the special liquidity support to banks that had raised Resurgent India Bonds (RIBs) money against their holdings of government paper at the Bank rate for a limited period between September 1998 and March 1999 has come to an end on April 5. A limit of about Rs 3,235 crore, thus got extinguished, though the amount of utilisation has been unduly meagre (Rs 4.50 crore at the end of February).

II
Call and Forex Market

The overnight call money market experienced some unusual pressure. The fears of yet another tranche of government borrowings coming to the market any time during the month as the WMAs drawn from the RBI were already running above limit, the expected withdrawal of as much as Rs 5,000 crore through advance tax payments and the oil companies doing equity swap deal amongst themselves as part of the government's disinvestment programme, brought about tightness in the money market. On top of these factors

Table 2: Daily Quotations of Highs and Lows of Call Rates in Per Cent Per Annum: Simple Statistical Characteristics

	All Four Weeks of the Month	March 1999 Week Ended				All Four Weeks of the Month	February 1999 Week Ended			
		26*	19	12*	5		26*	19	12*	5
Simple Mean	8.4	7.7	10.1	8.2	8.3	9.0	9.0	9.1	9.0	9.1
Standard Deviation	1.4	0.6	0.8	0.2	0.5	0.3	0.5	0.2	0.3	0.4
Coefficient of Variation (percentages)	16.7	8.0	8.3	1.8	6.0	3.8	5.2	2.0	3.6	3.8

* Data for reporting Fridays (RF) are omitted.

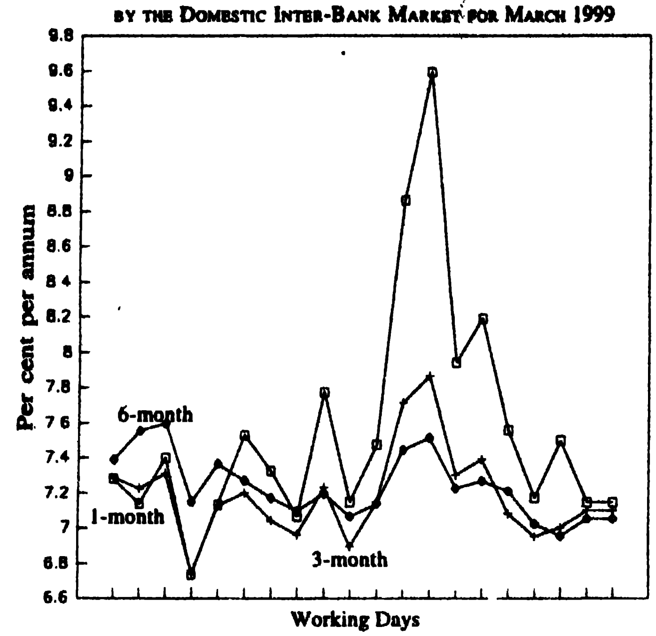
Table 3: Call Money Rates

(Per cent per annum)

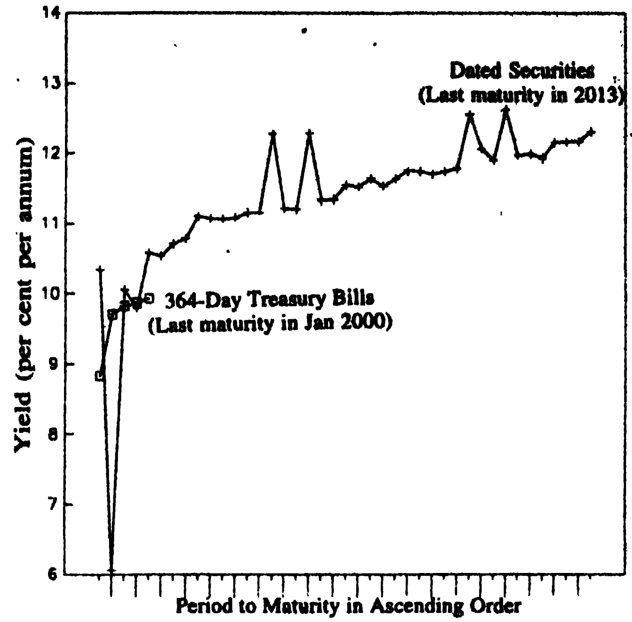
Items	March 1999				February 1999			
	26 (RF)	19	12(RF)	5	26 (RF)	19	12(RF)	5
Weekly range	3.00-12.00	7.60-11.25	7.00-8.50	7.50-9.35	7.15-9.25	8.75-9.50	7.00-9.60	8.65-9.40
	(7.00-9.00)	(8.00-9.75)	(7.50-10.25)	(7.00-9.35)	(7.50-10.00)	(8.65-15.50)	(0.75-11.50)	(7.00-17.00)
Weekend (Friday)	3.00-7.25	8.90-10.75	7.90-8.10	8.15-8.75	8.80-9.20	8.90-9.25	8.50-8.75	8.90-9.05
	(7.75-8.25)	(8.25-9.50)	(6.50-9.50)	(9.00-9.50)	(8.75-9.25)	(8.75-9.50)	(1.00-5.00)	(8.50-11.25)
DFHI lending rates(range)	5.75-10.25	7.65-11.50	7.50-8.65	na	7.50-10.00	8.90-9.60	na	8.40-9.75
	(6.25-9.00)	(7.90-9 75)	(7.10-9 10)	(8.75-9.35)	(5.00-9.35)	(8.75-14.75)	(2.25-11.50)	(8.25-16.00)

Figures in parentheses represent weekly range during similar period last year.

Graph C: Annualised Daily 1-Month, 3-Month and 6-Month Forward Premia in Percentage for the US Dollar by the Domestic Inter-Bank Market for March 1999



Graph D: Yield Curves for 364-Day Treasury Bills and Dated Securities: Day of Maximum Transactions (March 9) During First Half of March 1999



were a very active OMOs' window of the RBI and a spate of holidays throughout the month. The result was that the call rate, which remained firm at above 8 per cent despite the reduction in the fixed repo rate to 6 per cent on March 1, further firmed up towards the third week of the month. The additional liquidity injected through half a percentage point reduction in CRR from March 13 or the substantial liquidity support given to primary dealers did not reduce the call rate. From 8.10-8.50 per cent in the first half of the month, the overnight rates firmed up to 9.50 to 11.50 per cent during the week March 15-19 (Graph A), when banks preferred to avail of substantial export credit refinance. The rates, however, softened in the fourth week when dollar accruals by the RBI increased, injecting more rupees. Banks' borrowings from the RBI dipped from Rs 8,202 crore as of March 19 to Rs 2,894 crore on March 26. Since the second fortnight had a number of holidays, the banks had covered their positions much before the reporting Friday (March 26). The demand being low, the call rates slipped to touch 3 per cent on that day. However, on March 31 the quotations of call rates soared to 16 per cent due to limited supply of funds, as banks were unwilling to lend for year-end considerations. Reuters' MIBOR touched 12.34 per cent and NSE's MIBOR 12.97 per cent. The month of March saw increased volatility in call rates as reflected in coefficient of variation for March working out 16.7 per cent as against 3.8 per cent in February (Tables 2 and 3).

Forex Market

March was yet another month of rupee stability. As the budget did not signal any changes in forex policy, belying expectations, the market response to a drastic reduction in the repo rate was muted and

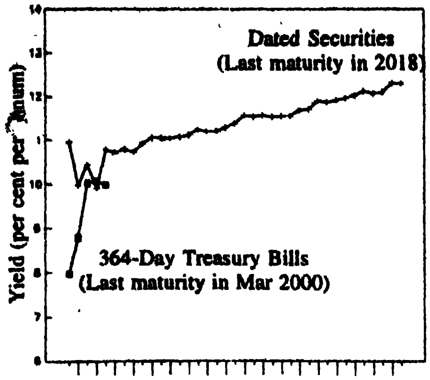
Table 4: Auctions of 14-Day Treasury Bills

(Amount in rupees crore)

Date of Auction	Notified Amount	Bids Tendered		Bids Accepted		Subscription Devolved on RBI (Amount)	Cut-off Price (Rupees)	Cut-off Yield Rate (Per Cent)	Amount Outstanding on the Date of Issue
		No	Face Value (Amount)	No	Face Value (Amount)				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1998									
Mar 6	-	3	440.00	2	90.00	106.00	99.72	7.30	546.00
							[99.72]	[7.30]	
Mar 12	-	4	205.00	2	140.00	0.00	99.72	7.30	336.00
							[99.72]	[7.30]	
Mar 20	-	4	105.00	3	55.00	50.00	99.72	7.30	245.00
							[99.72]	[7.30]	
Mar 27	-	3	85.00	3	85.00	50.00	99.72	7.30	240.00
		(1)	(200.00)	(1)	(200.00)		[99.72]	[7.30]	
1999									
Mar 5	100.00	15	450.00	6	100.00	0.00	99.68	8.35	600.00
		(1)	(400.00)	(1)	(400.00)	(0.00)	[99.68]	[8.35]	
Mar 12	100.00	12	376.40	1	100.00	0.00	99.70	7.82	800.00
		(1)	(200.00)	(1)	(200.00)	(0.00)	[99.70]	[7.82]	
Mar 19	100.00	10	241.00	0	0.00	50.00	99.70	7.82	400.00
		(-)	(0.00)	(-)	(0.00)	(50.00)	[99.70]	[7.82]	
Mar 26	100.00	6	62.00	0	0.00	50.00	99.70	7.82	200.00
		(-)	(0.00)	(-)	(0.00)	(50.00)	[99.70]	[7.82]	

Figures in parentheses in cols 3 to 6 represent numbers and amounts of non-competitive bids which are not included in the total.
Figures in the square brackets under cols 8 and 9 represent weighted average price and respective yield.
* Bracketed figures in col 7, if any, relate to devolvement on primary dealers, exclusive of RBI. – No bid.

Graph B: Yield Curve for Dated Securities: Day of Maximum Transactions (March 23) During the Second Half of March 1999



shortlived. For about a week up to March 8, the rupee fell to Rs.42.52/55 against the earlier Rs.42.42/45 but thereafter recovered and remained at the previous level throughout the month. This has happened despite the US dollar firming up against all major currencies with the euro slipping to a new low below $1.0850. Some foreign banks did resort to arbitraging by borrowing from the call market, but the contrary forces of corporates selling dollars or resorting to major import cancellations, banks unwinding their long positions earlier built up in anticipation of a weak rupee policy, and increased flow of dollars following renewed net investment flows by FIIs, and exporters encashing foreign exchange to boost their balance sheet, all combined to sustain the rupee strong (Graph B).

Between February 26 and April 1, there has been a $1,788 million accrual to reserves. Combined with a tight call money market, these factors kept forward premia under check except for the near first month (Graph C) as a result of the scramble for short-term coverings in the face of some conflicting policy signals on exchange rate management (at one point, the finance minister had shown a preference for a 5 per cent depreciation of the rupee).

III
Primary Market

Gilt-Edged Paper

There was no fresh issue of dated security in the market during March despite the government breaching the WMA limits on several occasions (which are tolerated as overdrafts at 2 per cent penalty rates for 10 days). The rates on treasury bills, however, were reduced after the RBI lowered the Bank rate and the repo rate on March 1. In the auction held on March 5 for 14-day bills, the rate was lowered from 9.39 per cent to 8.35 per cent and further to 7.82 per cent in all the subsequent three auctions (Table 4). Likewise, the rate on 91-day bills was cut from 9.54 per cent to 8.79 per cent and then to 8.75 per cent in the last three auctions and that on 364-day bills from 10.62 per cent to 10.07 per cent during March (Tables 5 and 6). The first fortnight witnessed no devolvement either on RBI or on PDs. Due to squeeze on liquidity, however, the second fortnight saw some devolvements on PDs and RBI. The total amount raised during March through 14-day and 91-day bills was Rs 400 crore each and that through 364-day bills Rs 1,500 crore.

Bonds Market

With the ensuing year-end, the issuers flooded the bond market to complete their fund raising targets. The rate cuts effected by the RBI on March 1 hardly had any impact on the primary bond yields offered.

Table 6: Auctions of 364-Day Treasury Bills

(Amount in rupees crore)

Date of Auction	Notified Amount	Bids Tendered		Bids Accepted		Subscription Devolved on RBI (Amount)	Cut-off Price (Rupees)	Cut-off Yield Rate (Per Cent)	Amount Outstanding on the Date of Issue
		No	Face Value (Amount)	No	Face Value (Amount)				
1998									
Mar 11		3	100.00	–	–	–	–	–	16314.00
Mar 25		1	50.00	1	50.00	–	92.61	7.98	16027.00
							[92.61]	[7.98]	
1999									
Mar 10	750.00	61	1565.00	42	750.00	0.00	90.85	10.07	9500.00
						(0.00)	[90.90]	[10.01]	
Mar 24	750.00	18	580.00	6	165.00	0.00	90.85	10.07	10200.00
						(0.00)	[90.85]	[10.07]	

.. not available – no bid. Figures in the square brackets represent weighted average price and the respective yield. Figures in brackets represent devolvement on Primary Dealers (PDs).

Table 5: Auctions of 91-Day Treasury Bills

(Amount in rupees crore)

Date of Auction	Notified Amount	Bids Tendered		Bids Accepted		Subscription Devolved on RBI (Amount)	Cut-off Price (Rupees)	Cut-off Yield Rate (Per Cent)	Amount Outstanding on the Date of Issue		
		No	Face Value (Amount)	No	Face Value (Amount)				Total	With RBI	Outside RBI
(1)	(2)	(3)	(4)	(5)	(6)	(7)*	(8)	(9)	(10)	(11)	(12)
1998											
Mar 6	100.00	1	25.00	–	–	75.00	98.20	7.33	2050.00	766.00	1284.00
		(1)	(25.00)	(1)	(25.00)	–					
Mar 12	100.00	3	20.00	–	–	55.00	98.20	7.33	1850.00	671.00	1179.00
		(1)	(25.00)	(1)	(25.00)	(20.00)					
Mar 20	100.00	–	–	–	–	25.00	98.20	7.33	1650.00	602.00	1048.00
		(1)	(25.00)	(1)	(25.00)	(50.00)					
Mar 27	100.00	–	–	–	–	25.00	98.20	7.33	1600.00	652.00	948.00
		(1)	(25.00)	(1)	(25.00)	(50.00)					
1999											
Mar 5	100.00	16	183.00	5	100.00	0.00	97.85	8.79	2165.35	255.20	1910.15
		(1)	(40.00)	(1)	(40.00)	(0.00)	[97.85]	[8.79]			
Mar 12	100.00	11	137.00	8	100.00	0.00	97.86	8.75	1865.35	255.20	1610.15
		(0)	(0.00)	(0)	(0.00)	(0.00)	[97.86]	[8.75]			
Mar 19	100.00	10	106.00	1	10.00	40.00	97.86	8.75	1525.35	228.70	1296.65
		(0)	(0.00)	(0)	(0.00)	(50.00)	[97.86]	[8.75]			
Mar 26	100.00	7	78.00	3	30.00	32.00	97.86	8.75	1500.45	224.70	1275.75
		(2)	(25.10)	(2)	(25.10)	(38.00)	[97.86]	[8.75]			

Figures in parentheses in cols 3 to 6 represent numbers and amounts of non-competitive bids which are not included in the total.
Figures in the square brackets under cols 8 and 9 represent weighted average price and respective yield.
* Bracketed figures in col 7, if any, relate to devolvement on primary dealers, exclusive of RBI.

As usual, financial institutions, banks and state PSUs dominated the primary market.

The month saw a marked success of state PSUs. Ten such PSUs collected Rs 1,792 crore against the proposed amount of Rs 1,301 crore – an excess of Rs 491 crore. The bulk of Rs 1,500 crore was collected by the Andhra Pradesh Transmission Corporation, the successor entity of recently unbuddled AP State Electricity Board – an overwhelming response for an initial proposed amount of Rs 300 crore.

The Karnataka State Financial Corporation (KSFC) placed its 4-year 13.5 per cent guaranteed bond in the private placement segment to raise Rs 200 crore. The issue carried an assured budgetary support from the government of Karnataka with a letter of comfort specifying tripartite agreement among the state government, KSFC and the trustees of the issue. The issue carrying a YTM of 13.96 per cent has already mopped up Rs 70 crore. Yet another issue of the same state – Karnataka Neeravari Nigam (KNNL) – hit the market to collect Rs 50 crore plus any over-subscription. This 5-year guaranteed bond carrying LA+(so) rating offered 13 per cent rate of interest. Among the higher rate category, there was a 5-year guaranteed bond offering 14.9 per cent annual coupon rate from UP State Yarn Company. It proposes to raise Rs 35 crore but the response is not known. Sardar Sarovar Narmada Nigam (SSNNL) entered the market with two options: (a) 4-year 10-month bond in the nature of promissory notes offering a coupon of 14.5 per cent payable semi-annually; and (b) 15 per cent payable annually. The issue plans to raise Rs 300 crore which includes an unspecified greenshoe option. Hutti Gold Mines Co and Damodar Valley Corporation continued with their issues from the previous month. National Capital Region Planning Board (NCRPB) came out with two options of 7-year taxable and tax-free bonds. The former carried 13.5 per cent and the latter had an indicative band of 9-9.75 per cent which was finally settled at 9.70 per cent coupon rate payable half-yearly. The tax-free bond proposed to raise Rs 60 crore against which it received a commitment of Rs 72 crore. Response to the taxable bond (Rs 150 crore) is not known. From the government of Punjab there were two issues, viz, 2-year 12.3 per cent bond from Punjab State Industrial Development Corporation (PSIDC) aiming to Rs 25 crore and another issue from Punjab Roads and Bridges Development Board which plans to collect Rs 50 crore from the market. The payment of interest and the principal repayment for both the issues have been guaranteed by the state government.

Amongst the central PSUs, SAIL, which was downgraded by Crisil, has finally managed to sail through and collected Rs 150 crore with much difficulty, despite offering a high coupon rate of 14.5 per cent and a yield of 15.03 per cent; this reflected the present woes of the steel industry. On the contrary, the tax-free 7-year priority sector 11.5 per cent bond from Rural Electrification Corporation (REC) managed to meet with the targeted amount of Rs 170 crore.

Among the perennially borrowing FIs, ICICI was the only one to take the lower interest rate signal; it hit the market on March 10 offering the regular instruments with roughly half a percentage point less yield and mopped up Rs 450 crore against the issue size of Rs 600 crore (which had included Rs 300 crore greenshoe option). IDBI, which carried its issue from over the previous month, closed on March 15 after collecting the targeted sum of Rs 1,500 crore. IFCI's 7-year and 4-year privately placed LAAA rated bonds offering 14.1 per cent and 13.4 per cent rates of coupon, respectively, mustered Rs 200 crore, an excess of Rs 50 crore over the issue size of Rs 150 crore. The 4-year bond carried a put option exercisable after 2 years at 0.85 per cent discount. Thus, YTM works out to be 13 per cent when put option is exercised. SIDBI privately placed its 2009 (9th Series) Bonds at 12.35 per cent. The issue closed successfully on the same day after collecting the targeted amount of Rs 50 crore. NABARD, National Housing Bank (NHB) and Industrial Investment Bank of India (IIBI) were also in the market. There were two issues from NABARD in the private placement segment: (i) 7-year taxable priority sector 2006 bond proposing to raise Rs 200 crore at 11.25 per cent payable annually; (ii) 10-year SLR bond planning to collect Rs 116.23 crore at 12.35 per cent coupon

TABLE 8: REPO TRANSACTIONS IN GOVERNMENT PAPER (OTHER THAN WITH THE RBI) – MARCH 1999

(Rupees crore)

Repo Period in Number of Days	Amount (Rupees Crore)	Range of Interest (Per Cent per Annum)
A Dated Securities		
1	2296	6.75-10.50 (7.80)
2	741	7.75-11.20 (9.11)
3	595	7.40-10.25 (8.15)
4	425	6.80-8.40 (7.47)
5	170	8.75-10.25 (9.15)
7	60	8.75-11.00 (9.83)
8	215	8.50-11.00 (9.02)
9	65	8.75-9.45 (9.02)
10	105	8.50-11.00 (9.29)
11	185	8.50-10.25 (9.74)
12	40	9.60-10.25 (9.94)
14	1042	8.50-11.00 (9.35)
19	25	9.00 (9.00)
All Issues		
1-19	5964	6.75-11.20 (8.47)
B 91-Day TBs (All Issues)		
1-14	170	
C 364-Day TBs (All Issues)		8.55-8.75 (8.79)
1-14	96	6.85-10.35 (8.81)

Figures in brackets are weighted average interest rate.

TABLE 7: AUCTIONS OF FIXED-YIELD REPOS BY RBI

(Amount in rupees crore)

Date of Auction (1)	Number of Days (2)	Bids Tendered: No (3)	Bids Tendered: Face Value (Amount) (4)	Bids Accepted: No (5)	Bids Accepted: Face Value (Amount) (6)	Fixed Cut-off Yield Rate (Per Cent) (7)	Estimated Amount Outstanding
01-Mar	3	1	150	1	150	8	1569
03-Mar	3	1	23	1	23	6	1523
04-Mar	4	No application received				6	23
05-Mar	4	1	12	1	12	6	35
06-Mar	4	1	96	1	96	6	108
08-Mar	3	No application received				6	108
09-Mar	3	"				6	96
10-Mar	3	"				6	0
11-Mar	4	"				6	0
12-Mar	4	1	25	1	25	6	25
13-Mar	4	No application received				6	25
15-Mar	4	"				6	25
16-Mar	4	"				6	0
17-Mar	3	"				6	0
19-Mar	3	"				6	0
20-Mar	3	"				6	0
22-Mar	4	"				6	0
23-Mar	3	"				6	0
24-Mar	3	"				6	0
26-Mar	4	2	170	2	170	6	170
27-Mar	3	No application received				6	170
30-Mar	4	"				6	0
31-Mar	3	1	400	1	400	6	400
Total		8	876	8	876		

Appendix Table: Secondary Market Operations in Government Paper: RBI's SGL Data

(Amount in rupees crore)

Descriptions	Week ending March 1999: Yield to Maturity on Actual Trading 26 AMT	YTM	CY	19 AMT	YTM	CY	12 AMT	YTM	CY	5 AMT	YTM	CY	Total for the Month of March 1999 AMT	YTM	CY
1 Treasury Bills															
A 14-Day Bills	107.00	7.54		145.75	8.03		66.61	7.63		146.55	8.46		465.91	7.99	
B 91-Day Bills	89.00	2.99		120.15	8.91		154.50	7.59		195.75	8.55		559.40	7.48	
C 364-Day Bills	327.00	9.46		536.00	9.47		366.80	9.47		540.00	9.49		1769.80	9.47	
2 GOI Dated Securities															
A Converted (Per Cent: Year)															
12.00, 1999	260.40	11.20	12.00	464.43	11.58	12.00	187.45	10.37	11.99	229.20	10.37	11.98	1141.48	11.05	11.99
13.25, 2000	24.78	10.88	12.91	2.00	10.94	12.95	20.00	10.65	12.89	10.00	10.56	12.89	56.78	10.74	12.90
11.75, 2001	90.00	11.09	11.59	185.50	11.14	11.60	261.00	11.10	11.59	335.00	11.35	11.65	871.50	11.20	11.62
12.50, 2004	396.18	11.58	12.09	–	–	–	644.49	11.58	12.09	572.28	11.74	12.16	1612.95	11.64	12.11
Sub-total	771.36	11.37	12.03	651.93	11.46	11.89	1112.94	11.25	11.97	1146.48	11.34	11.98	3682.71	11.34	11.97
B Regular (Per Cent: Year)															
13.40, 1999	5.00	10.44	13.13	–	–	–	10.00	10.08	13.08	15.00	9.99	13.07	30.00	10.10	13.08
13.70, 1999	12.50	9.97	13.61	25.00	10.01	13.60	35.50	10.13	13.59	82.00	9.97	13.58	155.00	10.01	13.59
11.40, 2000	–	–	–	260.70	10.88	11.32	686.75	10.82	11.31	853.00	11.04	11.34	1800.45	10.94	11.33
11.64, 2000	230.00	10.80	11.53	11.00	10.84	11.53	75.00	10.69	11.51	85.00	10.96	11.54	401.00	10.81	11.53
12.60, 2000	–	–	–	–	–	–	30.00	10.17	12.35	–	–	–	30.00	10.17	12.35
13.85, 2000	45.83	11.07	13.32	–	–	–	0.01	10.81	13.22	5.00	10.93	13.23	50.84	11.05	13.31
10.85, 2001	60.00	11.06	10.90	40.00	11.17	10.92	106.00	11.07	10.90	35.00	11.17	10.92	241.00	11.10	10.91
11.47, 2001	50.00	11.15	11.39	95.00	11.23	11.41	5.00	11.19	11.40	30.00	11.23	11.41	180.00	11.20	11.40
11.55, 2001	417.80	11.08	11.45	568.00	11.13	11.46	412.35	11.09	11.45	726.93	11.27	11.49	2125.08	11.16	11.87
12.08, 2001	10.00	11.11	11.86	40.00	11.18	11.87	–	–	–	–	–	–	50.00	11.16	11.87
12.70, 2001	15.00	11.06	12.36	5.00	11.05	12.35	21.00	11.11	12.36	–	–	–	41.00	11.08	12.86
13.31, 2001	–	–	–	10.00	11.21	12.71	5.00	11.15	12.69	10.00	11.25	12.72	25.00	11.21	12.71
13.55, 2001	5.42	11.16	12.86	35.00	11.18	12.86	95.02	11.21	12.86	25.00	11.24	12.87	160.44	11.21	12.86
13.75, 2001	–	–	–	16.00	11.13	13.10	110.00	11.11	13.09	160.00	11.35	13.15	286.00	11.24	13.12
11.00, 2002	10.00	11.21	11.06	20.00	11.24	11.07	5.00	11.23	11.07	35.00	11.45	11.13	70.00	11.34	11.10
11.15, 2002	161.00	11.23	11.18	200.00	11.28	11.19	235.00	11.26	11.18	151.79	11.40	11.23	747.79	11.29	11.19
11.15, 2002(I)	10.00	11.24	11.05	–	–	–	65.00	11.33	11.08	–	–	–	75.00	11.32	11.08
11.55, 2002(I)	–	–	–	50.00	11.33	11.48	15.00	11.33	11.48	105.00	11.37	11.49	170.00	11.35	11.49
11.68, 2002	65.00	11.23	11.54	70.00	11.25	11.55	132.00	11.24	11.54	200.03	11.32	11.57	467.03	11.28	11.55
12.69, 2002	30.00	11.19	12.22	25.00	11.22	12.23	15.00	11.22	12.23	18.00	11.34	12.26	88.00	11.23	12.23
12.75, 2002	85.00	11.28	12.26	45.00	11.26	12.25	22.00	11.32	12.27	2.03	11.63	12.37	154.03	11.28	12.26
13.82, 2002	60.18	11.33	12.91	5.00	11.32	12.91	25.00	11.25	12.88	7.00	11.38	12.92	97.18	11.31	12.91
11.10, 2003	19.00	11.36	11.19	10.00	11.38	11.20	17.50	11.35	11.19	25.00	11.40	11.21	71.50	11.37	11.20
11.75, 2003	–	–	–	–	–	–	10.00	11.40	11.62	40.00	11.48	11.65	50.00	11.47	11.64
11.78, 2003	45.05	11.40	11.64	20.00	11.45	11.65	145.00	11.41	11.63	95.00	11.48	11.66	305.05	11.43	11.64
11.50, 2004	80.20	11.55	11.53	30.00	11.59	11.54	51.00	11.59	11.54	72.67	11.70	11.59	233.87	11.61	11.55
11.75, 2004	5.00	11.56	11.67	–	–	–	35.00	11.61	11.69	70.00	11.65	11.71	110.00	11.63	11.70
11.95, 2004	35.00	11.56	11.77	70.00	11.60	11.79	126.00	11.56	11.77	85.00	11.79	11.88	316.00	11.63	11.81
11.98, 2004	395.00	11.58	11.79	282.50	11.61	11.81	454.80	11.64	11.82	–	–	–	1132.30	11.61	11.81
12.59, 2004	50.00	11.59	12.13	55.00	11.60	12.13	95.50	11.64	12.15	105.00	11.67	12.16	305.50	11.63	12.15
11.19, 2005	–	–	–	–	–	–	27.25	11.68	11.44	–	–	–	27.25	11.68	11.44
11.25 ,2005	55.00	11.66	11.46	5.00	11.70	11.48	163.78	11.71	11.48	6.40	11.76	11.51	229.48	11.70	11.48
13.75, 2005	–	–	–	20.00	11.76	12.68	40.00	11.78	12.68	–	–	–	60.00	11.77	12.68
14.00, 2005	13.45	11.75	12.77	0.00	11.47	12.61	33.75	11.76	12.76	0.12	11.98	12.88	47.32	11.76	12.77
14.00, 2005 INSTAL	11.19	11.77	12.74	17.61	11.77	12.74	54.00	11.79	12.75	5.00	12.08	12.90	87.80	11.80	12.75
11.50, 2006	10.00	11.75	11.64	25.00	11.76	11.65	115.00	11.78	11.66	19.50	11.85	11.70	169.50	11.78	11.66
11.75, 2006	86.32	11.74	11.75	50.57	11.75	11.75	55.15	11.76	11.76	20.12	11.86	11.82	212.16	11.76	11.76
13.85, 2006 INSTAL	–	–	–	15.00	11.84	12.64	5.00	11.88	12 66	5.00	11.93	12.69	25.00	11.87	12.66
11.50, 2007	35.00	11.90	11.75	–	–	–	40.00	11.89	11.75	5.00	11.96	11.79	80.00	11.90	11.75
11.90, 2007	48.00	11.92	11.85	35.00	11.92	11.92	–	–	–	40.00	11.95	11.93	123.00	11.93	11.90
13.05, 2007	9.68	11.91	12.34	15.47	11.94	12.35	32.17	11.95	12.36	32.70	11.97	12.37	90.02	11.95	12.36
11.50, 2008	–	–	–	15.00	11.95	11.80	55.00	11.96	11.80	–	–	–	70.00	11.96	11.80
12.00, 2008	14.10	11.99	12.00	0.60	11.99	12.00	5.94	11.97	11.99	1.28	12.13	12.09	21.92	11.99	12.00
12.25, 2008	112.72	11.99	12.08	108.26	12.00	12.09	308.02	12.00	12.08	–	–	–	529.00	12.00	12.08
7.00, 2009	5.00	12.09	9.91	20.00	12.09	9.91	20.00	12.08	9.91	–	–	–	45.00	12.08	9.91
12.29, 2010	97.26	12.15	12.19	25.49	12.15	12.19	18.09	12.16	12.20	–	–	–	140.84	12.15	12.19
Sub-toal	2470.36	11.40	11.75	2372.39		11.63	4118.65	11.36	11.72	3244.63	11.27	11.68	12206.03	11.34	11.70
C Zero Coupon Bonds	132.00	10.53	7.90	56.00	10.19	7.73	314.65	10.37	7.94	266.50	10.62	7.98	769.15	10.47	7.93
(A+B+C)*	3373.72	11 36	11.66	3080.32	11.34	11.62	5546.24	11.28	11.56	4657.61	11.25	11.54	16657.89	11.30	11.58
D RBI's Open Market Operations (Per Cent: Year)															
11.15, 2002	17.76	11.22	11.17	–	–	–	–	–	–	–	–	–	17.76	11.22	11.17
11.98, 2004	147.25	11.57	11.79	5.00	11.58	11.79	–	–	–	–	–	–	152.25	11.57	11.79
13.05, 2007	–	–	–	–	–	–	–	–	–	167.47	12.16	12.49	167.47	12.16	12.49
12.29, 2010	–	–	–	–	–	–	1484.27	12.15	12.20	381.00	12.15	12.19	1865.27	12.15	12.20
12.40, 2013	95.23	12.31	12.33	55.38	12.31	12.33	533.23	12.31	12.33	10.00	12.31	12.33	693 84	12.31	12.33
Sub-total	260.24	11.82	11.94	60.38	12.25	12.28	2017.50	12.19	12.23	558.47	12 16	12.29	2896.58	12.15	12.22
(A+B+C+D)	3633.96	11.39	11.68	3140.70	11.35	11.63	7563.73	11.53	11.74	5216.08	11.35	11.62	19554.47	11.43	11.68
3 REPO	1418.00			1671.50			1815.00			1315.00			6219.50		
4 State Govt Securities	36.58	12.21	12.34	12.29	12.30	12.38	8.70	12.31	12.39	13.49	12.37	12.54	71.06	12.26	12.39
Grand total (1 to 4)	5611.54			5626.39			9975.34			7426.87			28640.14		

(-) means no trading YTM = Yield to maturity in percentage per annum CY = Current yield in per cent per annum * Yield rates of these sub-groups of t-bills and dated securities have been used for the graphs. Securities with small-size transactions (Rs 20 crore or less) and inflation linked bonds have been dropped from the above list but included in the respective totals.

Notes: 1) Yields are weighted yields, weighted by the amounts of each transaction
2) Current yield has not been worked out for treasury bills.

rate. NHB too offered 12.35 per cent on its 10-year bond for Rs 25 crore, whereas IIBI put an indicative band on its 10-year 'on-tap' SLR bond; the rate would be decided through the process of negotiation.

Among the banks, Citibank hit the market with 13 per cent 7-year bond as private placement to raise Rs 225 crore. This is for the first time that a foreign bank is raising resources in the domestic market to hike its risk-weighted capital adequacy ratio as per the RBI's modification of its policy to allow foreign banks to raise capital in the domestic market. Besides, there were other bank issues from Global Trust Bank, Bank of Baroda, United Western Bank, State Bank of Indore and Catholic Syrian Bank. The rates of interest for these issues ranged between 13.7 per cent and 14.5 per cent for the varying tenures of 63 months to 121 months. In all they proposed to collect up to Rs 804.75 crore. Amongst these, Bank of Baroda fetched as much as Rs 1,127 crore against Rs 600 crore (Rs 400 plus Rs 200 crore of greenshoe) followed by United Western Bank Rs 120 crore (Rs 50 crore plus greenshoe option of Rs 50 crore); Global Trust Bank raised Rs 67 crore against Rs 75 crore issue.

Almost all the issues that closed in the previous month were successful in meeting their targeted amount. In fact, some issues like those from GMIDC and KSEB were over-subscribed. In a surprising development, however, the Bharat Electronics (BEL) opted to withdraw its issue from the market on account of very few takers. The issue was LAA rated and offered 13 per cent rate of interest payable half-yearly. The coupon was the lowest in recent times for any PSU and hence the failure to press the issue.

It was reported that the union government has placed Rs 561 crore or 87 per cent of its debt holding in Nalco with banks and financial institutions. The issue was made through a six-year, 14.5 per cent non-convertible redeemable secured debentures payable semi-annually. At 14.5 per cent, the paper became most sought after commanding a premium of nearly Rs 3-5 in the market. The centre's action was the last leg of its disinvestment programme in Nalco. ICICI offloaded its NPAs of DLF Cements worth Rs 130 crore to DLF Universal. Besides reducing ICICI's NPA, the deal will also help Universal fetch a better price in the market. DLF Cement has been looking for a buyer.

Other Instruments

According to the data released by the RBI, there was considerable activity in the primary market for commercial paper but the yield rates were quite volatile. CPs reported during the first fortnight of the month were Rs 1,024 crore against Rs 762 crore in the previous fortnight. The latest issues were done at interest rates ranging from 8.50 per cent to 13.25 per cent; the rates have softened at the short end. The total CP amount outstanding as on March 15, was Rs 5,149 crore against Rs 1,030 crore about a year ago. The CD market has been generally dull as the banks now enjoy considerable freedom in offering interest rates on term deposits including offering differential rates based on the size of deposits.

TABLE 9: OPERATIONS OF NATIONAL STOCK EXCHANGE (NSE) DURING MARCH 1999 – ACTUAL TRADED AMOUNT

(Rupees crore)

Descriptors	Week-ending March				Total during		
	26	19	12	5	March	February	January
1 Treasury Bills	181.00	405.00	80.00	174.00	840.00	816.08	1063.93
i) 14-day Bills	–	–	1.00	4.00	5.00	2.00	48.89
ii) 91-day Bills	45.00	20.00	10.00	26.50	101.50	248 11	258.25
iii) 364-day Bills	136.00	355.00	69.00	143.50	703.50	560.97	756.79
iv) Repo	–	30.00	–	-	30.00	5.00	–
2 Dated Securities	4058.10	3109.15	2196.37	2540.76	11904.38	5334.68	8867.38
A GOI Securities	4052.94	3102.50	2189.49	2525.39	11870.32	5215.29	8804.83
i) Converted	1158.94	322.50	398.49	362.39	2242.32	874.24	1377.15
ii) Regular	2682.00	2427.00	1636.00	1881.00	8626.00	3671.00	6037.00
iii) Zero Coupon	205.00	270.00	30.00	98.00	603.00	498.00	1022.51
iv) Cap. Indexed Bonds	7.00	–	–	5.00	12.00	25.05	15 17
v) GCB	–	–	–	–	–	–	–
vi) Repo	–	83.00	125.00	179.00	387.00	147.00	353.00
B State Govts. Stocks	5.16	6.65	6.88	15.38	34.06	119.39	62.55
3 PSU Bonds	20.00	27.00	27.82	52.00	126.82	165.50	189.90
i) Tax free	20.00	24.00	14.50	33.10	91.60	109.40	67.23
ii) Taxable	0.00	3.00	13.32	18.90	35.22	56.10	122.67
4 Commercial Papers	10.00	30.00	25.00	43.00	108.00	302.00	314.00
5 Certificates of Deposits	25.00	62.50	0.00	0.00	87.5	–	–
6 Debentures	5.20	32.00	2.00	46.65	85.85	67.68	63.76
7 Floating Rate Bonds	0.00	0.00	0.00	0.00	0.00	85.00	337.00
8 Others *	121.00	42 00	107 00	97.35	367.35	441.14	205.38
Grand Total (volume)	4420.30	3707.65	2438.19	2953.76	13519.90	7212.08	11041.35
Average per working day							
a Government Paper (1+2)	847.82	702.83	379.40	542.95	606.88	256.28	354.69
b Others (3+4+5+6+7+8)	36.24	38.70	26.97	47.80	32.76	44.22	39.64

– No trading. GCB Government Compensation Bonds. * includes Non-SLR Institutional Bonds, SLR Institutional Bonds, Bank Bonds, Promissory Notes, Units of UTI, Company Notes and Zero Coupon PSU Bonds and others.

IV
Secondary Market

Gilt-Edged Paper

The government securities market saw a zig-zag movement in prices during March. Initially on account of interest rate cuts, the prices surged sharply and the RBI had to intervene in the market by way of capping the rise on five-year paper. With call rates tightening during mid-March, the security prices saw some softening as players unwound their positions to generate liquidity. Trading remained lacklustre and prices remained stable towards end of the month as players awaited placement of a fresh issue in the market and refrained from taking positions. The possible impact of year-end trading on the yield curve for the entire 1998-99 also prevented traders from being active. The yield curve exhibited an unusually gentle upward slope (Graphs D and E).

The RBI concentrated correcting the yield curve through its OMO prices. While it kept the long-term yields more or less constant at around 12.33 per cent, it significantly lowered the yields at the shorter and medium end. The RBI remained quite aggressive on its open market operations window during March. It did total sales worth Rs 2,897 crore against Rs 2,590 crore in the previous month (Appendix Table).

As a consequence of the tightness in the overnight call market, the RBI's fixed-rate repo generally received no application or received one or two bids for amounts ranging from Rs 25 crore to Rs 400 crore during large part of the month (Table 7). Repo transactions outside the RBI were also meagre (Table 8). When government securities are excluded the NSE commercial debt trade was meagre during March (Table 9).

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Dynamic Credit Policy

The Only Hope of Economic Revival

EPW Research Foundation

Against the background of output, price and monetary trends, credit policy has to be decisively expansionary. Further, after having achieved considerable reduction in interest rates in the recent period, the issue is no more one of the cost of credit; it is rather that of availability and supply of credit and its distribution.

THE impending monetary and credit policy generally for 1999-2000 and more specifically for its first half, scheduled to be announced on April 20, is conceivably being formulated under unusual and extremely challenging circumstances. First, the Indian economy is facing a severe shortage of demand in general and persistent sluggishness in industrial growth and investment in particular. Second, as a result of an acute fiscal laxity and fiscal compression, which are primarily responsible for the crisis situation in the real economy as well as in the financial system today, the burden of economic revival has fallen disproportionately on monetary and credit policies. The repeated pressures that are being put on the Reserve Bank of India (RBI) for further reduction of interest rates, for instance, are an example of how the government is endeavouring to cover up its own fiscal policy failures in reviving the industrial economy. Finally, when the RBI governor now wants to bring to bear some fresh perspectives on monetary policy formulation, showing some candid and significant departure from the earlier policy stance, he is faced with stupendous structural, institutional and even organisational constraints within the banking and financial system in achieving the desired goals.

In fairness, it must be admitted that the present RBI governor, immediately on assuming charge in November 1997, sent out clear signals on his desire to apply newer perspectives. On the one hand, he admitted that the analytical framework underlying monetary policy until then, which had accepted the stability of the money demand functions and monetary targeting as the cornerstone, required rethinking. On the other, simultaneously, the governor sought to address the institutional and structural constraints of the financial system. Apart from appointing three committees – two one-man committees for studying credit delivery in agriculture and small-scale industries and a working group on harmonising the regulatory environment for banks and DFIs, the RBI had expressed its serious concern on slow offtake of credit and advised bankers "to step up the flow of credit by activating the functionaries at operative levels and to monitor the credit growth on a monthly basis. The bankers were advised to convene meetings of regional and zonal heads and visit some of the branches to monitor the situation" (RBI press release of December 6, 1997).

The truth is that such an eclectic approach to credit policy formulation and its administration, unlike in the case of strait-jacket monetary targeting exercises, is much harder to get it translated into definitive action programmes at the operational level. It requires two things: first, the broader developmental linkages have to be brought to bear on the deployment of monetary and credit policy instruments such as the link between credit, output and employment activities in different sectors and regions; and second, an honest and efficient system of monitoring both the physical targets set and the qualitative changes aimed at, should be put in place. Against this yardstick, the steps so far taken by the RBI in the recent period seem to have fallen far short of the expectations; they seem to lack the drive, the thrust to galvanise the banking and financial system to fulfil its obligations and thus help achieve the objectives of monetary and credit policy, the most crucial one of which is to endeavour to provide adequate credit for production and investment purposes. A critical evaluation of performance of banks at their operational levels in regard to credit delivery is sure to drive home the point made here. Therefore, in the immediate context, the monetary and credit policy for 1999-2000 has to address a few crucial concerns.

First, the focus on monetary targeting has deprived the banking system of definitive guideposts on the relative size of bank credit and its distribution. Just the time when many important countries were giving up monetary targeting and beginning to take a 'credit view' of monetary policy, the Indian authorities began to embrace the outdated concept. Be that as it may, it would be very appropriate for the current situation in particular to restore the focus on credit and its distribution as an instrument of development. Second, certain elements of policy, particularly those relating to capital adequacy norms, have hindered the growth of commercial credit in the recent period. Therefore, apart from the prescription of direct measures to accelerate credit delivery, it is necessary to introduce relaxations in some of those norms so that the banks are encouraged to render such commercial credit. Finally, the RBI has a stake in establishing arrangements whereby social goals of policy and policies of a moral suasion nature are systematically and vigorously monitored and the results shared with the respective bank boards.

Against the background of output, price and monetary trends, two broad principles should govern the monetary and credit policy formulation in the current context. First, the policy has to be decisively expansionary; the depressed economic activity on the one hand, and the prevalence of moderate inflation, on the other, permit such an expansionary credit policy. Second, now after having achieved considerable reductions in interest rates in the recent period, the issue at present is no more one of the cost of credit; it is rather that of availability and supply of credit and its calibrated distribution.

No Case for Interest Rate Reduction

Any forced reduction of interest rates at the banks' level is sure to hurt their viability. Major banks have reduced their prime lending rates (PLRs) to 12 per cent, some ruling still at 13 per cent. Also, the spread has now been restricted to four percentage points. The RBI's basic statistical returns (BSR) for March 1996 showed that as much as over 60 per cent of total bank credit (above Rs 25,000 each) or over 45 per cent of aggregate bank credit carried interest rates of 17 per cent and above. Such high incidence of interest rates on bank loans would not be prevalent anymore.

As for its comparison with inflation rate, it should be admitted that in the Indian case the expected inflation rate is around 8 per cent and not 5 per cent as prevailing at present. For the manufacturing firms, interest rate is a tax deductible expenditure. The old argument that to some extent, the level of interest cost should serve as some disciplining factor in the use of credit, is still valid. In the existing interest rate structure, what has contributed to some distortion is the charging of very high rates of interest on investment credit by term-financing institutions – higher than even the rates on working capital loans charged by banks. As indicated below, this requires correction at the FIs' end. The only other reduction called for relates to some downward adjustment in export credit.

Any other generalised reductions in the lending rates of banks would have their repercussions on their deposit rates which, at present ruling in the range of 9 per cent to 11.50 per cent for different fixed deposit maturities in different banks, cannot be considered as high. As it is, with the blanket tax exemption on dividends earned on units of all mutual funds including the UTI, a situation of severe competition has arisen for bank deposits, the growth of which has clearly decelerated in recent months.

The Desired Measures

First, the cash reserve ratio (CRR) has been accepted as one of the potent instruments of liquidity management, though the long-term goal of reducing it to more moderate levels deserves to be pursued, particularly when it is placing commercial banks in a disadvantageous position *vis-a-vis* the FIs. The potential liquidity situation during 1999-2000, would call for injecting additional liquidity through a further reduction in CRR. Such a reduction of about one percentage point in two stages, half a percentage point each, to a level of 9.5 per cent would release about Rs 7,000 crore of liquidity or Rs 3,500 crore in each instalment. This could be done in May (in the midst of the peak food procurement credit) and in November-December next year to serve the possible busy season credit requirements.

Second, the banks are to be asked to achieve a gross non-food bank credit to deposit ratio of 60 per cent gradually by the end of March 2000. Including banks' investments in capital and money market instruments (except equity shares), the ratio as of March 26, 1999 stood at about 55 per cent, or in incremental terms it worked out to 47.8 per cent for 1998-99. Apart from the norm of credit-deposit ratio, the RBI should derive an estimate of desirable level of incremental credit for 1999-2000, and if banks' deposit growth falls short of the requirement, some special refinance window may be activated to supply liquidity support to banks.

Third, the importance of priority sector credit norm of 40 per cent has been stealthily diluted by including a number of new elements like indirect credit for agriculture; the banks have also been allowed to give the backlog as loans to SIDBI and NABARD. One of the harshest aspects of the present credit delivery system has been the general neglect of small and priority sector borrowers. Prescription of sectoral norm for agriculture, small-scale industry and small borrowers does not amount to micro-level influencing; there are millions of such potential borrowers who deserve to be catered to by banks. It is the lackadaisical monitoring of the RBI that has been responsible for a general neglect for small borrowers; this in turn was because under the influence of mainstream structural adjustment programme, the central bank at that time had lost faith in the system of directed credit. It is time that some vigour is introduced to the implementation of R B Gupta (in agriculture) and S L Kapoor (small-scale industry) committee reports in letter and spirit. The same organisational vigour has to be introduced in the general credit delivery system so that bank personnel imbibe the genuineness of providing adequate bank credit to productive sectors – a promise the RBI keeps giving ad nauseam. The RBI has to be assured of organisational preparedness by banks for credit delivery as well as credit recovery. Some systematic monitoring of such arrangements should not imply interference in the day-to-day functioning of banks; it is only to ensure that the credit policy goals are truly achieved in letter and spirit.

Fourth, apart from the organisational issues, banks have been deterred from rendering commercial credit for two reasons: difficulties faced by manufacturing firms to fulfil their repayment obligations in a situation of depressed economic activity and increased rigours of risk-weighted capital norms. No doubt, a vicious circle has set in whereby depressed output and investment activity has hurt cash flows of corporates, which in turn has made banks shy away from lending to commercial units. In such a situation, banks alone can break the vicious circle, and it is possible because there is a continuum in the production and trading cycle and there are many units in the commercial loop which are capable of absorbing higher bank credit if banks considered commercial lendings as one of their crucial obligations, with of course appropriate safeguards. Today, there is a blanket resistance to lending to corporates, particularly small and medium ones. With regard to the provisioning of minimum capital to risk assets ratio (CRAR), the current environment, where the credit flow is choked, calls for relaxation. The minimum that should be done is to postpone the implementation of the measures taken in October last; in particular the increase in the CRAR from 8 to 9 per cent for the year ending March 31, 2000 deserves to be suspended as a signal to banks to promote improved credit delivery.

Fifth, encouragement to credit expansion for priority sectors can also be done by opening a refinance and rediscount window for banks against such lendings. The special liquidity support given to banks against government securities worth about Rs 3,235 crore having been being extinguished, a similar amount could be used for the above purpose.

Sixth, a more potent instrument of injecting liquidity, albeit selectively, could be applied in the case of development finance institutions (DFIs) for on-lending term credit in favour of industrial investment and infrastructural development. Each year the RBI could set aside about Rs 5,000 crore for this purpose. Infusion of such funds by the RBI in favour of the DFIs may help the latter from putting pressure on the capital market and pre-empting funds therefrom; this may facilitate the manufacturing firms to resort to equity issues and may thus help the revival of the primary capital market.

Finally, on the interest rate front, two steps are required. First, the earlier facility of providing export credit refinance facility at two percentage points less than the Bank rate deserves to be restored. In the post-budget announcement of the credit policy on March 1, the RBI has said that the export credit refinance will be provided to banks at the Bank rate (which is 8 per cent now). Secondly, and more significantly, the RBI should intervene in the fixation of coupon rates on commercial bonds and introduce a ceiling at say about 12.5 to 13 per cent for banks and FIs and at about 14 per cent for manufacturing firms in the public and private sectors. Besides, all bond issues are required to be compulsorily rated. These measures will have some positive impact on the capital market.

Adult Education: A Tale of Empowerment Denied

Vimala Ramachandran

The National Adult Education Programme and the Total Literacy Compaign (TLC) failed to live up to their initial promise. Corruption undermined the former, a grants-in-aid scheme, and a quick-fix approach the latter, besides the stress on the commitment of individual administrators rather than on system reform that injured both. One upshot was that an opportunity for the empowerment of women that unexpectedly presented itself was squandered.

THE early fifties were euphoric days for India. We had confidence in the future, in our people and in the capability of the system to deliver the goods. China was working wonders in the field of education. We were confident that we too could do well. There was a feeling that adult literacy would happen in our country in due course. Of course, it was not on the priority list. The Nehru era focused on infrastructure development, the building of institutions of higher education and technical education, and primary education. The Education Commission (1964-66) raised the issue of adult literacy and called for 'liquidating illiteracy', advocating a selective as well as mass approach. But that did not translate into concrete programmes.

It was not until after the emergency of the mid-seventies that the government decided to initiate a nationwide programme for the eradication of illiteracy. The National Adult Education Programme (NAEP) was launched on October 2, 1978. The 1970s was an era of radical literacy movements which saw literacy as an emancipatory tool.

In the immediate post-emergency period the NAEP created space for the involvement of non-governmental organisations and social action groups in the literacy movement. This was hailed as a progressive step. The government was not seen as the primary vehicle for adult literacy and empowerment at that time. The programme was motored by a scheme of grants to voluntary organisations. Gradually, however, the government created adult education units with the mandate to run literacy classes. Given the severe resource crunch, the government relied on part-time instructors who were paid very modest honorariums. It was argued that this was just a token effort designed to encourage young rural men and women to teach adults in their own community.

The intended goal was education, not just literacy. Literacy was seen as a tool in a larger effort to create awareness. It was believed that this would give adults the confidence to reach out to information and knowledge, acquire new skills and walk with their heads held high. During the early years, the NAEP evoked a great deal of enthusiasm. The voluntary sector was just emerging as a force to reckon with. These "non-party political formations" were hailed as harbingers of social change – which the election-oriented political parties had ceased to be. Given the post-emergency scenario in India, the very presence of community-based social action groups and voluntary agencies was seen as a triumph for democracy. The decisive electoral verdict against Indira Gandhi in 1977 and the restoration of democratic processes thereafter seemed to signal the beginning of a new era. The post-emergency euphoria coupled with the recognition that the state alone could not deliver the goods in an iniquitous market-oriented society acted as a spur for new movements, organisations, activities and actors. Though Indira Gandhi returned to the helm in 1980 voluntary organisations had come to stay by then, as had the literacy programme. Something had changed between 1975 and 1979.

What Went Wrong with NAEP

The centrality of popular education in workers' struggles and radical movements had come to be accepted by the late seventies. Education for social justice and equality was the slogan of that era, extending into the early eighties. Entrusting the task of adult education to the emerging voluntary sector seemed to be a logical step. While this situation was sought to be exploited by opportunists with an eye on the readily-available funds, it also set the stage for many genuine groups inspired by Paulo Freire and Ivan Illich to do remarkable work in participatory learning.

Unfortunately, the NAEP got discredited within 10 years of its launching. Anil Bordia, the dreamer who conceptualised the programme and nurtured it during the first few years, admitted this: "As it consciously tried to move away from being identified with the government programme, it provided for greater participation of voluntary agencies...Inherent structural deficiencies, coupled with inflexibilities of all kinds and at all levels – in the timing of the centres, in numbers enrolled, in the provision of funds, and in the bureaucratised, hierarchical attitudes – led to a situation where the NAEP, which had had a promising start became another ineffective government programme" [Bordia and Kaul 1992].

What were these 'inherent structural deficiencies'? Systems set up for making grants and monitoring their use did not function well: corruption, misutilisation of funds (especially by influential people who set up voluntary organisations), grossly inadequate payments to literacy instructors and abysmal support structures eroded credibility. Evaluation showed that many voluntary organisations did little. There were many cases of bogus organisations receiving funds, and in some areas the programme became yet another patronage network of the powerful. There were examples of organisations that received enormous funds but made little impact on literacy levels. While there were also examples of pathbreaking work, such success stories were few and far between.

Having invested millions of rupees, the government decided to switch to a campaign mode in 1988 when the NAEP was wound up and the total literacy campaign (TLC) launched. The emphasis changed from adult education to adult literacy.

The decline of the NAEP sent out the signal that problems were inherent in government-sponsored, centrally-administered grant-in-aid schemes. Given the prevalent administrative culture, any grant-in-aid programme faces the danger of partisanship and politicisation. Creating administrative and financial systems that are transparent and accountable, and sustainable as well, is not easy. The difficulties did not receive due attention. The administrators who designed the programme placed too much reliance on the capabilities of committed civil servants. The importance of transparent systems for selection of voluntary agencies, rules, regulations and objective criteria for the evaluation of progress was not adequately appreciated.

Outdated grant-in-aid procedures shrouded in bureaucratic secrecy, erratic financial flows and a tendency to keep the voluntary agencies on tenterhooks *vis-a-vis* grants further compounded the prob-

lem. This system bred petty corruption. It was not uncommon for voluntary organisations to pay speed money to ensure timely release of funds. The sad truth is that such phenomena are widespread in grant-in-aid schemes in the fields of education, women's development, rural development, environment and so on.

Nor can we place much reliance on administrators having activist inclinations and endowed with charisma. Such administrators make little effort to initiate reform within the system. Impatient with mainstream structures, they are given to bypassing the system and creating alternative management structures. What they apparently fail to realise is that the mainstream administrative culture gradually eats into alternative structures. Such administrators refuse to acknowledge the inherent limitations of a charismatic leader model. Rarely looking beyond their tenures, they seem to ignore the prevalence of corruption and mismanagement in such system. The upshot of all this was that many social activists and organisations who had done good work through the NAEP gradually moved out of 'adult education' and went into participatory development. Most of them opted out of government schemes and started mobilising funds from donor agencies. Decline in the NAEP's credibility had led to widespread disillusionment with the very concept of adult education.

FROM ADULT EDUCATION TO LITERACY

As in the case of the NAEP, voluntary organisations, social action groups and village-based social animators were the mainstay of the TLC. But there was a difference. The literacy mission was positioned as a time-bound campaign involving a wide range of actors as 'partners' in social mobilisation. The centre-based approach gave way to intensive time-bound literacy classes conducted by volunteers. 'Zilla saksharata samitis' (district literacy societies) were created to bring together people from the administration, voluntary groups and national resource agencies like the Bharat Gyan Vigyan Samitis (BGVS), an offshoot of the communist movement in Kerala, as well as individual social activists. This structure was created to transfer initiative to the community and generate a momentum for literacy through creative environment-building. Jathas – processions for social mobilisation which use theatre, music and dance as tools – were to be the instrument of environment building.

Literacy volunteers were recruited and trained. They were asked to run classes for six months – in which time the adult learners were expected to complete learning the first primer. The scheme also provided for post-literacy centres called Jana Shikshan Nilayam. The fulcrum around which the entire campaign was to revolve was the district collector – who was also the chairperson of the zilla saksharata samiti, a government-created autonomous society. It was hoped that this structure would foster genuine partnership between the district administration and social activists, community leaders, eminent people and of course ordinary citizens interested in working for the campaign.

Civil servants were expected to initiate and lead a mass campaign. They were also expected to galvanise the entire administration to work in campaign mode. In short, they were asked to keep their bureaucratic training to one side and plunge into social activism. The legacy of the dispassionate and neutral civil servant was laid to rest.

Like the NAEP, the literacy campaign was designed for the exceptionally committed or exceptionally ambitious civil servant. It was beyond the reach of routiners howsoever competent. The Zilla Saksharata Samiti was to have a great deal of flexibility. It was expected to combine the outreach and authority of the government with the flexibility of voluntary organisations. The 'empowered committee' – the executive committee – was to include representatives of civil society. Funds were to be channelled directly from the union government, the state governments being bypassed.

When the country was plunged into a communal cauldron during the early nineties, a social worker from Uttar Pradesh commented that the expenditure incurred on the literacy campaign, an election campaign and the Ram Janmabhoomi campaign were not different from one another: who can tell how many organisations secretly fed and housed 'kar sevaks'. The reality is that there was no foolproof system to monitor the environment-building stage of the TLC. The system hinged on the key administrators' political proclivities. While the department of education (ministry of human resources development) appointed people with known secular credentials in decision-making bodies during the early years, Indian politics itself was changing colour in the mean time. Such criticism notwithstanding, the TLC did capture the imagination of many organisations, civil servants and ordinary people.

Women responded in large numbers making the campaign a potential force for the mobilisation and empowerment of women. Such unexpected spin-offs emerged as the greatest validation of the campaign. In an otherwise bleak scenario, this aspect of the literacy campaign reopened the debate on education as a tool for women's empowerment and equality. The women's movement, which had hitherto had an ambivalent stand on adult education and literacy, took note of the mobilisation of women, particularly in Pudukottai district of Tamil Nadu and Nellore district of Andhra Pradesh – where it was unprecedented.

In Nellore, a coastal district, the initial

social mobilisation for literacy in 1991 was successful, and many women came forward to participate in literacy classes. One seemingly unimportant chapter taught in the classes described the effect of alcoholism on the family and the efforts in some parts of the country to fight the social evil. Maybe the time was just right or maybe the women of Nellore were quite fed up with the havoc alcohol has created in their lives, but this chapter galvanised them. Almost overnight, thousands of women came out of their homes, and the 'anti-arrack' movement of 1992 was born. District officials involved in the literacy campaign were not just sympathetic to the movement. They encouraged it. As the movement picked up momentum, the state government declared prohibition in April 1993.

Changing government policy was a heady experience, and during one of the victory celebrations women discovered the magic formula of self-help groups. This discovery led to the birth of the savings movement. In just two years, nearly 6,000 savings groups called 'Podupulakshmi' came up. The government then decided to create a women's bank. This was a mistake. Women who had got used to handling their own money and who had experienced the power of decentralised decision-making were reluctant to hand over their savings to an impersonal banking system. The savings movement lost its momentum and gradually petered out, though many groups reportedly continue to function quietly.

In Pudukottai, an impoverished district, the literacy campaign led to unprecedented mobilisation of rural women in 1992. The bicycle became the instrument of empowerment of women in this area. Thousands of women learnt to ride it. Acquisition of the means for greater mobility alongside literacy skills was the distinguishing feature of the campaign as it developed in this district.

The women of Nellore and Pudukottai may not have mastered literacy skills, but the literacy campaign changed their lives. As Avik Ghosh observed in 1997:

> The...anti-arrack movement launched by rural women in Nellore district became possible because the literacy centres provided a forum for women to meet, share experiences and discuss issues.. While it was never the national literacy mission's intention to create confrontation between people and the administration, the facilitative factors of a volunteer-based and loosely structured programme provided the space for people to think and act freely. The district officials and the literacy workers, on their part, facilitated and provided positive support to their cause...The TLC provided, for the first time on such a large scale, a forum for participation and dialogue, discussion, learning and sharing among volunteers (agents of change) and learners (those desirous of change).

Large-scale campaigns impart dynamism and the will to change to their participants, and this was more than demonstrated in some districts in the context of the TLC. Literacy classes and the group discussions, experience-sharing, access to information and collective action associated with them generated their own momentum. Evaluation reports and travel notes of those who visited the TLC districts show that people belonging to traditionally disadvantaged groups like the scheduled castes and the scheduled tribes participated in large numbers. Women jumped into the arena with great enthusiasm.

It was too good to last. The literacy mission lost in 1993 the momentum it had gathered from 1989 to 1992. Campaign managers and administrators sitting in Delhi and in state headquarters had belied the hopes of thousands. It is now widely known that the literacy classes could not be sustained everywhere and that the continuing education programme was a non-starter. Shoddy planning, red tape and the unfortunate lack of continuity in the policies and practices of the government (as represented by senior officers) led to the demise of an otherwise exciting process. Studies conducted in Birbhum, Bilaspur and Dumka districts by the Centre for Media Studies, New Delhi in 1998 confirmed the worst fears of observers. Not much literacy happened, though people might have learnt to sign their names. But the campaign did lead to greater demand for primary education for children.

The culture of 'undo what my predecessor did' affected the literacy campaign. Moreover it was realised that the campaign was floundering in many districts. The government therefore launched 'Operation Restoration' in 1994. Twenty-five districts, most of them in 'resistant' states, were selected for special attention. It is difficult to make any categorical statement on the success of Operation Restoration. The available evidence, anecdotal and patchy, does not speak of any spectacular turnaround.

The literacy mission demonstrated that given the right environment and the right stimulus the state machinery could be galvanised into creative action. It also demonstrated beyond doubt that people, especially women, are not apathetic to learning. Beyond a particular stage in life they may find literacy skills difficult to acquire and retain, but enthusiasm for learning and acquiring knowledge does exist. Women participated in large numbers, not because they wanted to learn the three Rs but because the campaign opened a window to the world outside. Women may not have learnt to read and write, but they certainly learnt to think, question themselves, speak their minds and work collectively.

Missed Opportunities

The literacy campaign is a story of missed opportunities. Wherever the campaign made an impact, women came forward. Poor rural women got a glimpse of a brave new world. In Nellore women came out of their homes, made alliances, worked closely with the administration and tried to change government policy. This generated greater awareness of social issues and encouraged the women to think strategically. The anti-liquor movement gradually gave place to the savings movement. Women formed groups to pool their savings and tap the corpus thus created for consumption and production loans. It was estimated in April 1995 that there were 6,600 savings pools bringing together more than 2 lakhs women. The groups had mobilised Rs 6 crore and gained access to Rs 3.75 crore through the Integrated Rural Development Programme (IRDP), and the Development of Women and Children in Rural Areas. It was an exceptional success story. It spawned a move to initiate a movement called 'People's health in people's hands'. The environment could not have been more favourable.

Here was a historic opportunity to use education as a tool for the generation and consolidation of people's power. But it was not to be. Adult educators and campaign managers packed their bags and left. They did not recognise the potential of a village-level institutional base for the promotion of life-long learning. The Andhra Pradesh government saw in the savings movement only an opportunity to build a women's bank. The confidence women in Nellore gained through the literacy campaign, the anti-arrack movement and the savings movement is still with them, but they have lost their collective strength. Women in Puddukottai, where cycling came to represent mobility and autonomy for women, narrate similar experiences.

After one has talked to a wide range of actors involved in the literacy campaign, a disturbing picture emerges. There was no strategic thinking – either in New Delhi or at the district level. Collectors, like most career civil servants, have a short time horizon. The literacy campaign gave them an opportunity to shoot into prominence, make a splash and then move on.

The painstaking process of nurturing a movement, helping ordinary people consolidate their new-found identity and strength and building sustainable organisational structure is alien to the civil service ethos. Unfortunately for India's development administration the average administrator does not think beyond his own tenure of, say, three to five years. The administrative culture does not encourage building on the achievements of predecessors. On the contrary a tendency to negate the contributions of predecessors has taken hold.

The literacy campaign was launched and justified as a quick-fix movement for the "eradication" of illiteracy. It was never conceived as a spark that would ignite a movement for lifelong learning.

The country seems to have given up strategic planning during the early seventies. What it needs are programmes with a long-term vision, whether the goal be child survival, safe motherhood, adult literacy or universal primary education. Quick-fix campaigns can at best provide the initial momentum. Again what we need to do is recognise the inherent limitations of our system and design programmes and schemes that are not dependent on the individual commitment, values and proclivities of extraordinary civil servants. We need transparent processes and systems which are open to scrutiny by the public – to be administered by run-of-the-mill civil servants who are accountable.

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Chipko Movement: Of Floated Myths and Flouted Realities

Jayanta Bandyopadhyay

On the 25th anniversary of the Chipko movement, this is a tribute to the courageous activists and men and women of determination who brought Chipko from a possible instrument of struggle to a trend-setting achievement. Also an examination of media created 'messages' to dispel some of the myths about the movement, in particular, the question was Chipko about economics or deep ecology and was it feminist.

ON March 26, 1999, a quarter of a century had passed since a group of women in the Reni forests of Garhwal Himalaya succeeded in chasing away timber felling contractors. In course of time this event became a milestone in the evolution of the world famous Chipko movement. An impressive and useful bibliography on the literature around the movement has also developed since then. A number of activists with remarkable philosophical richness and social commitment have devoted their lives to this movement, which is one of the most written about in the world today.

In spite of the volumes of literature, or probably because of it, there appear some serious gaps in the public impressions and actual realities of the movement. Myths have often flouted realities, individuals with no links with the movements have often been projected by the media as its leaders. Thus, some widely accepted yet mistaken concepts have gained currency. There is a need to re-establish the realities about the movement and to honour the selfless hard work of the numerous less-known and unknown Chipko activists.

As a student of environmental activism, over the past 20 years, the author and his associates have travelled extensively through mountain villages in large parts of Garhwal and Kumaon Himalaya, where the Chipko movement emerged. This article is written as a tribute to the numerous and largely unknown activists of the movement on the occasion of the 25th anniversary of the successful forest protection action in Reni under the leadership of Gaura Devi, head of the local village women's organisation. It is also aimed at a wider examination of the reliability of media created 'messages' and dispellin some of the myths about the movemen that have floated around for quite some time. The article addresses questions suc as is Chipko a movement rooted in eco nomic conflicts over mountain forests o guided by ideas of deep ecology; is it social movement based on gender col laboration or a 'feminist movement' base on gender conflicts; and has anyone in th Chipko movement actually hugged tree at the risk of her/his life and not for waitin photographers.

Documented evidence from the move ment sources does not indicate any influ ences of the brand of thinking known a 'deep ecology'. Dependable historica account of this widely written abou movement is, surprisingly, scanty. Amon the early writers on the history of th movement, Bandyopadhyay (1992) as wel as Guha (1989) have not indicated an link with 'deep ecology'. On June 24 1973, the first successful resistance t forest felling at the Mandal forests wa based on economics and aimed at obtain ing higher allotment of trees for felling t the Dasholi Gram Swarajya Sang (DGSS), a local Gandhian organisation On March 26, 1974, the more vociferou yet non-violent resistance at the Ren forests was triggered off by the news o auction of some local forests for fellin to a sports-goods company from the plain The contract system for forest fellin allowed rich contractors from the plain to make large profits from fellings in th mountain forests. The basic theme of th movement as opposition to this practic is precisely expressed in the followin lines from a famous poem by Raturi, th folk-poet of the movement:

Embrace the trees in the forests
And save them from being felled!
Save the treasure of our mountains
From being looted away from us!!

The movement had its beginning in th conflicts over mountain forests betwee the economic interests of the mountai communities and the economies of th plains. However, this fundamental basi of the movement got substantially reduce when the contract system of felling wa stopped and the public sector Fores Development Corporation was established The fellings were undertaken with th help of local village co-operatives.

Reference in the literature is frequentl made to an environmental branch of th movement, which called for a total ban o commercial fellings in the whole Garhwa and Kumaon Himalaya. This part of th movement is reported to have originate in the Tehri-Garhwal region, particularl

the Henwal valley region, and is identified with the slogan:

What do the forests bear?
Soil, water and pure air!!

The slogan is an excellent and simple summarisation of the ecological importance of the mountain forests, especially in the Himalayan context. Many academic analysts, including the present author, had unhesitatingly accepted the slogan, when first informed about it. However, with the passage of time, several questions on the representative character and origin of this slogan have emerged. Notwithstanding the significant role played by the women of Henwal valley region in the protection of mountain forests, many women in the Garhwal and Kumaon region do not find the slogan very realistic. Can the women in the mountain villages who spend several hours each day in the forests struggling to collect daily firewood and green fodder, ever forget to include them in the list of important forest products, they ask. The convoluted argument that firewood and green fodder can grow only when there is soil, water and pure air, and hence they are secondary, appears too distant, theoretical and urban in the face of the hard struggle for survival in the rural mountain villages.

Naturally, the slogan has impressed urban environmentalists the world over but, for the women in the mountain villages who struggle to keep the cooking-fire running and the domestic cattle well-fed at home, the slogan is an abstract one, at best a reflection of half-truth of their lives. This point indicates why the ecological message of the Chipko movement has impressed environmentalists in the urban areas and the countries of the north, much more than those in the mountainous hinterlands in the south. However, there is also a positive side to it. Much of the success of the movement in getting tacit political support lies in this capacity of the leadership of the movement to mobilise the vocal and urban environmentalists. Thus, in line with the distinction made by Guha (1989), the Chipko movement has the private face of a quintessential peasant movement and a public face of one of the most celebrated environmental movements of the world. Chipko has its roots in the hard economic struggle for survival, while its face has been tactically decorated by some 'deep ecological' terms.

In the early literature on Chipko no serious questions were raised about the movement being based on gender conflict. There was no lack of recognition of the fact that the issue of forests in the Garhwal and Kumaon Himalaya touches the women much more intensely than the men. The presence of large number of women in the forest action at Reni, and the large-scale participation of the village women have led to some analysts claiming that Chipko is a 'women's movement'. Guha (1989) has answered these questions in a substantive manner showing the location of Chipko in the tradition of social movements of the region. However, in spite of that, Shiva (1992), identified Chipko as 'a women's movement', though no activist woman from the movement has made any such claim. The acutely subjective nature of such claims and the confusions they generate can be explained by a closer look at the way the protest led by Gaura Devi in 1974 is seen from the ecofeminist viewpoint. As Guha (1989) describes, "Reni's importance in the saga of Chipko andolan (movement) is two-fold. It was the first occasion on which women participated in any major way, this participation, moreover, coming in the absence of their own menfolk and DGSS activists."

Guha has elaborated on how the officials made a clever move to get the menfolk and the DGSS activists away from the villages around Reni forests, so that felling could be undertaken without resistance. The forest officials were concerned about the resistance to forest felling by both men and women. As Gaura Devi, the woman leader of the forest action at Reni explained [Guha 1989]: "It was not a question of planned organisation of the women for the movement, rather it happened spontaneously. Our men were out of the village so we had to come forward and protect the trees." This clearly establishes the nature of the movement as a joint struggle based on gender collaboration. Thus, while the men in the concerned villages were diverted by a clever official move, the women took up the mantle of resistance.

Interestingly, Shiva's (1992) description of the same incidence, from an ecofeminist viewpoint merely says: "A group of village women led by one Gaura Devi hugged trees, challenging the brute power of hired sawyers, about to cut down the trees for a sports-goods company." This statement suffers from reductionist drawbacks and distortion of facts. Due to the reductionist view, Shiva is unable to see the Reni action in a holistic perspective. Thus, the link between the steps taken by Gaura Devi and the contrived absence of the men in the village has been missed in her analysis.

Referring to the contrived absence of the menfolk of the village, Guha (1989) describes the same incidence thus: "Gaura Devi quickly mobilised the other housewives and went to the forest. Pleading with the labourers not to start the felling operations, the women initially met with abuse and threats. When the women refused to budge, the men were eventually forced to retire...As such, even at the level of participation Chipko can hardly be said to constitute a women's movement."

Gaura Devi herself did not mention any incidence of having led the women to embrace trees, as has been projected by Shiva (1992). This is historically incorrect. In the ecofeminist literature on Chipko, the women of Garhwal and Kumaon have often been described as opponents of change and mere carriers of tradition. Similarly, the menfolk are described as rapacious agents of economic development and change. Realistic, holistic and painstaking research results by scholars in the same region have, fortunately, provided a different picture [see for example Mehta 1996]. More recently, such myths have been more effectively exploded by the leading roles played by the women of Garhwal and Kumaon in the popular movement demanding a new and development-oriented state in this mountain region.

Notwithstanding sensationalist writings, the women activists of the Chipko movement have considered that the movement has strengthened itself from gender collaboration against the inappropriate management practices for the mountain forests. Women have played significant roles in the movement, just as their male counterparts. There is no reason for seeing the Chipko movement as based on gender conflicts.

A common impression exists all over the world, except in the villages of Garhwal and Kumaon, that large number of people, especially women, have been embracing trees to prevent their felling. While the media has played an important role in spreading the positive message of the movement, some journalists have failed miserably to maintain minimum professional standards and have created serious confusions at the international level on the above question.

In a magazine *Sanctuary*, Shiva (1992) declared that 'one Gaura Devi' led a group of village women to hug trees. A number of researchers had discussed the Reni action with Gaura Devi. However, there is no documented support to the claim of Shiva. She was neither present at the spot in Reni, nor does she refer to any discussion with Gaura Devi. There has been a media created confusion on the issue of who embraced the trees in Chipko movement. This has also disturbed the activists of the movement.

The spreading of misinformation is taken to comical heights by a Malaysian journalist Fong (1996) who, in an article in *The Star* wrote: "Her (Vandana Shiva's) name is synonymous with the Chipko movement (Chipko means embrace) in India, an active anti-logging movement in the 70s and early 80s. To stem environmental destruction, Vandana (Shiva) led thousands of women to embrace (literally) the trees in the Himalayan mountains in their bid to stop logging activities." In the characteristic style of sensationalist journalism, Fong (1996) does not provide any date, place, forest area, or villages associated with the incident he reports. Nor does he mention one name out of the thousands of women that Shiva, reportedly, had led somewhere in the Himalayan mountains. The activists of the Chipko movement, though partly amused, wrote a letter of protest to the editor of *The Star*: "The interview is based on false claims of Vandana Shiva and has angered many...The real activists are so simple that they do not know why Vandana Shiva is reportedly publishing wrong claims about Chipko in the foreign press. We should all stand up against this new green exploitation of the people's simplicity and courage by clever, greedy and selfish persons like Vandana Shiva" [Jardhari et al 1996].

Contrary to all the unfounded greenish journalistic attempts in the international media, to garner the glory of the Chipko movement, there has so far been only one reported instance of actual use of the method of embracing trees, and that too by a male activist. In the year 1977, Dhoom Singh Negi, a courageous and lesser known Gandhian activist from the village Pipleth, successfully prevented felling by embracing trees in the Salet forest area in the Garhwal Himalaya, as has been reported by Shiva and Bandyopadhyay (1986). In all other instances of Chipko movement, resistance was expressed in other nonviolent forms. In most cases, the presence of a large number of angry villagers was enough to discourage the contractors from trying to fell trees.

All photographs of 'Chipko Actions' represent enactments. When the only reported incidence of embracing trees to protect them from felling occurred in Salet forests in the Garhwal Himalaya, and human life was at risk, there was no photographer around in the remote mountain forests.

Many courageous activists, men and women of determination, have brought 'Chipko' from the stage of a possible instrument of struggle to the stage of a trend-setting achievement. Individuals like Dhoom Singh Negi are busy working in their small and remote Himalayan villages for the cause of sustainable human development. On the occasion of the completion of a quarter century since the mountain women's action at Reni forests in 1974, this article is a tribute to all of them.

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Welfare and Well-Being in Modern Mexico

David Barkin

The restructuring of Mexican economy and the reorganisation of the state have changed the government's relation to the people, redefining the responsibilities for creating opportunities and resolving social problems. This article reviews the impact of structural changes on the well-being of the principal social groups and the government's response to the profound problems of neoliberalism.

THERE is ample recognition that the process of globalisation is causing growing polarisation in all dimensions of social life: among regions, social classes and people. In spite of the unprecedented volumes of material production, international trade, and international capital flows, in virtually every society a crisis of lack of gainful employment and declining levels of individual welfare appear to be the unavoidable results of a new system of globalised production. The restructuring of the Mexican economy and the reorganisation of the state during the past 20 years dramatically changed the government's relation to the people, redefining the responsibilities for creating opportunities and resolving social problems that arise as a result of the new order. In this short article, I offer a review of the impact of these structural changes on the well-being of the principal social groups and the government's response to the profound problems that have arisen.

Mexican Reforms

The thoroughgoing package of economic and political reforms implemented during the 1980s created the conditions for Mexico's full integration into the world economy. Its accession to the General Agreement on Tariffs and Trade (GATT) in 1986 was followed by an accelerated elimination of barriers to foreign commerce, the precipitous negotiation of the North American Free Trade Agreement (NAFTA), and the removal of other deterrents to foreign participation in the reshaping of Mexican society and its economy. The results are evident to all observers, although there are varying interpretations of their significance for individual welfare and the nation's future.

The country's economic structure was modified dramatically. The long-standing programme of import substituting industrialisation supported by a programme of 'stabilising development', was jettisoned. The articulated system of interindustrial relations forged to supply basic consumer needs of a modernising population was dramatically unravelled. Instead, the Mexican government allowed an unrelenting succession of consumer goods imports to flood the market. Apparently, this was meant to purchase political support from various social groups who did not fully understand the programme of international economic integration. Small and intermediate sized firms found themselves unable to compete and even many larger companies were forced to lay off sizeable proportions of their labour force as part of their desperate struggle to become more competitive. In the process, export-oriented production reshaped the economy and even the spatial organisation of society.

This neoliberal reorganisation was implemented by a new group of policy-makers. Their vision of the state's role in society led to a profound realignment of economic power, with private interests assuming responsibility for guiding the modernisation and evolution of the productive structure. In the new scheme of things, the professional managers were charged with creating an environment conducive to the smooth functioning of private capital, be it domestic or foreign. Mexico was integrating itself into the world economy more rapidly and completely than other countries, and was offering its rich array of natural resources, be they animal, vegetable or mineral, and its abundant supply of labour power, as inputs to attract the world's corporations who would accelerate the rate of economic growth.

Without evaluating the merits and effectiveness of this strategy, it is clear that it brought about an intense process of social polarisation in Mexico, as elsewhere. This is evident from a summary examination of: (1) the evolution of the labour force and salaries, (2) data about income distribution, and (3) other indicators of material well-being.

Employment and wages: The 1982 crisis ushered in a recession that had disastrous consequences and was further compounded by the sudden removal of import barriers that permitted a massive inflow of consumer goods. When combined with policies that forced peasant communities to abandon the planting of basic crops and the expansion of irrigated and mechanised production, the country faced a massive displacement of labour in traditional jobs. The manufacturing sector witnessed a 22 per cent decline in its share of the labour force in private establishments from 1980 to 1993 [Rendon and Salas 1996] while real incomes in the peasant farming sector fell without a concomitant decline in the labour force [Lopez and Mendez 1992]. The expansion of the 'maquiladora' industry to more than one million employees in 1998 only partially compensated for the slow growth in industry and agriculture. The automobile industry also expanded rapidly. Employing about 1,50,000 people by the end of the 1990s, it responded positively to the withdrawal of import barriers on parts sent merely for assembly. By 1993, before the most recent increase the 'maquila', however, the export platform had jumped from 6 to 20 per cent of the manufacturing labour force. Unfortunately, the expansion in these sectors cannot have the same multiplier effects as the jobs that were lost elsewhere, since purchases of inputs for the maquila are only about 2 per cent of the value of production, and the auto industry is actually running a balance of trade deficit because of the high proportion of imported parts in its products. Further compounding the problem was the wholesale destruction of small and medium-sized business, either because of massive imports with which they were unable to compete, or the lack of credit and the high financial costs for those who were able to obtain financing.

The policies adopted to implement the new vision depressed real wages: an innovative series of wage repression schemes, more recently institutionalised in the form of 'pactos', or tripartite 'agreements' guided the evolution of wages throughout the economy. Because of the lack of long-term aggregate series of reliable information about real earnings, a number of scholars offer their own versions of the misfortune imposed upon Mexico's workers and their families. Since its peak in 1976, for example, the minimum wage has fallen 73 per cent to a historic low of 34 pesos a day (US $ 3.40),

about two-thirds of the level when the concept was first introduced in 1934 [Barkin 1990; Valle and Martinez 1996]. Today it is so low as to be an irrelevant reference point, except for wages paid to day labourers of indigenous origin in agricultural regions, or in some of the maquiladora plants that are moving to Mexican villages far from the border to escape the increasing vigilance of regulatory authorities and militancy of workers' organisations.

Of course, most Mexican families could not survive such a drop in real incomes. Industrial incomes did not decline as drastically: workers' real salaries fell 'only' 51 per cent, while employee wages were squeezed 27 per cent between 1976 and 1996 [Valle and Martinez 1996]. To offset these dramatic changes in pay scales, households throughout the social scale have adjusted by increasing the number of members they send into the labour force, even if this means bloating the ranks of the itinerant merchants and other poorly paid groups. The number of small (micro) businesses has virtually exploded as people desperately search for new ways to eke out a living.[1] In an attempt to draw a coherent aggregate picture of these developments, another scholar developed a measure of 'disposable income per male adult equivalent' for the 1981-96 period. His original calculation of a decline of 22 per cent rose to 30 per cent when adjusted for the dramatic deterioration in income distribution since implementation of neoliberal policies of economic adjustment and restructuring [Boltvinik 1998].[2]

Income distribution: Mexico's inequitable income distribution has provided fodder for ridicule and concern for decades, since the first studies of the issue in the sixties [Martinez 1960, 1970; Tello 1971]. The continuing improvement in material conditions and real incomes undoubtedly explained why, in the midst of increasing concentration of income and wealth through the sixties, the Mexican people continued to support the regime and its model of 'stabilising growth' [Barkin 1974]. But with the end of generalised improvements in economic welfare in the 1970s, and a renewed increase in income concentration, the issue of social polarisation emerged, as did programmes to combat marginality and extreme poverty.

Again, the paucity of reliable information led to creative attempts to describe the process. The offerings range from the pedestrian displays of monetary income by deciles to complex calculations of material well-being on the basis of imputed incomes from owner occupied housing and household consumption of subsistence products and services; summary indices, like the Gini coefficient could hardly do justice to the depths of the polarisation process.[3] The data were never able to encompass the profound differences of a divided, regionally and ethnically segregated, occupationally segmented society. Regardless of how it was measured, however, the distribution became more unequal, accelerating with the neoliberal approach to economic management.

The differences within the working classes are, themselves, quite striking. In 1997, with about 20 per cent of the working population earning less than one minimum salary and another 15 per cent with no income at all, the workers covered by industrywide union contracts averaged 1.8 minimum salaries, manufacturing workers 4.6, construction workers 2.6, while the maquila workers averaged 3.1. Similarly, the president reported in his 1998 state of the union message that while average real wages for workers covered by the social security system (IMSS) declined by 24 per cent in real terms between 1994 and 1997, particular industry groups experienced losses ranging from 18 per cent to 41 per cent, with the least harmed being concentrated in the larger enterprises [Rendon 1999]. Clearly, recent employment trends, concentrating growth in the service sector's smaller firms, only serve to heighten polarisation.

Material well-being: A brief glimpse of the magnitude of poverty is sufficient to reveal the depth of the problems facing Mexico today. The stage of stabilising development (1958-70), now discredited for its inward looking approach, culminated a 35 year 'miracle' of high rates of economic growth and contributed to forging the industrial labour force and middle classes. Using a composite measure of basic needs and a socially defined poverty limit, the fraction classified as poor fell from more than three-quarters of the population in 1963 to less than one-half in 1981, a glowing testimony to the efficacy of import substitution in addressing some of Mexico's pressing social problems [Hernandez Laos 1992]. In contrast, with the implementation of the neoliberal approach to macro-economic management following the crisis of 1982, the same methodology produces an alarming 30 per cent increase in the magnitude of poverty by 1994, before the onset of the most recent economic crisis [Boltvinik 1998].

Official Welfare Programmes

In the face of these growing inequalities, the government developed a succession of welfare programmes to contain the diverse manifestations of social discontent. Unlike past epochs, however, when profligate public expenditures were used as a tool of social control and redistribution, the new budgetary discipline has forced a profound change in the way the government responds to righteous demands from the growing ranks of the extremely poor.

One-quarter century ago, the government created a Commission for the Marginal Areas to signal its awareness of the problem. By creating community level organisations, it offered to provide support for micro-businesses, attack the problem of rural unemployment with an infrastructure construction programme, and broaden the options for consumers and producers alike by subsidising local co-operatives or privately owned stores. Like other such programmes that would be implemented during the following decades all over Mexico, they proved ineffective in stemming the increase in poverty. Rather than breaking down structural barriers, most analysts agree that they maintained the poor 'in their place', enlisting them for the political machine that guaranteed electoral victories for the official party or occasionally for the opposition [Fox 1992; Fox and Moguel 1995; Haber 1992]. Regardless of the explanations for these failures, there is general agreement that they were expensive and generally ill-conceived mechanisms for attacking the root causes of poverty.

Today the watchword of social welfare programmes is 'targeting'. Previously, as a last fling to build or reinforce a political constituency among the poor, the PRI integrated a highly visible programme of public works, social services, and political mobilisations. Tried under the flag of 'Solidarity' during the Salinas de Gortari administration, it was judged a failure after its director, Luis Donaldo Colosio emerged as the new presidential candidate and was assassinated. The panoply of subsidies and the institutional safety net for urban poor and peasants is now replaced by a succession of programmes designed to reach the most vociferous of the poor or those who might favourably respond to these manifestations of public sector concern.

The new approach, dictated by the dual imperatives of fiscal responsibility and use of market guidelines, confers greater responsibilities on the poor. As in other

countries that have adopted the neoliberal model, the poor are no longer considered to be passive victims of the system, to be extracted from their plight by a generous programme of public expenditures. There is widespread agreement that this approach simply will not work. The government now conceives its responsibility as identifying the poor as precisely as possible and offering succour so that they can strive as individuals to resolve their particular problems and (re)join society.

To implement this approach, new domestic programmes have been designed to reinforce international commitments to facilitate the unfettered operation of global markets. In rural areas, price supports were rapidly withdrawn (except for a temporary extension in the case of corn and beans[4]) to allow producers freer reign in making decisions about how best to raise output. In their place direct payments are now made to farmers (ProCampo) in recognition of their need for income supplements because of the prevailing low levels of productivity and farmgate prices. Few remember that this change from crop to income supports was a commitment made during the NAFTA and the Uruguay Round of trade negotiations. Similarly, the aid and public works approach to poverty reduction is now being replaced by direct payments to needy families with young children. The services supplied through the PROGRESA label of modern social welfare to a well-defined clientele are expected to reinforce their own desire and ability to 'invest in human capital' and thus create a new productive labour force for the future. With these innovations, poor people are now receiving direct payments from the government in the form of cheques that they can cash to truly modernise their poverty and their relationship to the bureaucracy of poverty. No matter that the political machine that oversees the programmes' implementation has changed little and oft times delays the distribution of these cheques until just before crucial political contests or mobilisations.

The new welfare system is founded on the same premises as those guiding the economy as a whole. If markets are freed from the institutional fetters that limit individual creativity and initiatives, then production will increase more rapidly and specialisation will promote a generalised improvement in welfare through global exchange. Similarly, if individuals are given the wherewithal to realise their full potential, then they too will succeed in pulling themselves up from poverty much more effectively than any official anti-poverty programme might. Both sets of assumptions are based on the vision of competitive markets offering equal opportunities and similar market power to all participants. With unimpeded capital flows and limited labour mobility, however, the pervasive inequalities that have deepened social chasms in Mexico can only become even more severe; it will become increasingly difficult to create opportunities for the poor to surmount the heritage of institutional and cultural obstacles or for small- and medium-sized businesses to create the goods and services that will generate the jobs required for further growth.

A new welfare programme cannot hope to compensate for the profound failings of the productive model. As long as public policy is designed to give free rein to international capital flows and disparage the importance of consolidating an integrated productive structure at home, it is unlikely that Mexico will be able to generate the productive jobs and public resources that it needs to rebuild its economy and strengthen its society. The individualisation of poverty, through the modernised welfare system further complicates the task, dividing communities against themselves, as each person struggles in the hope of qualifying for the new cash payments and political favours. Even more troublesome, by attempting to break down the traditional ties of community governance and collective process of resource and ecosystem management, the structural adjustments of neoliberal production and social polarisation threaten the ability of the system to contain social discontent within bounds and to guarantee the planet's ability to support human society.

An Alternative Vision

Ironically, even former president Salinas de Gortari now claims to understand this reality. After forging the institutions that plunged Mexico into the morass in which it presently finds itself, he now claims that "we need to fashion...a decentralised and participatory alliance between public actions and private initiative". Recognising that "the neoliberal version of the market economy may favour the interests of big international businesses and transactions" the erstwhile autocrat now recants, calling for a "deepening of democracy...an economy more open to diversity of practices and institutions...and, therefore better able to combine the two clashing and overlapping requirements of economic progress – co-operation and innovation" [Salinas de Gortari and Mangabeira 1999]. This apparent rebuke of the new generation of blind apostles of the neoliberal catechism by the demigods of yesteryear serves as fair warning: we must be ever more vigilant and steadfast in our defence of the fundamental values on which human society depends for its cohesion and on which the planet Earth depends in order to continue to sustain us.

Fortunately, many sensible and dedicated people in Mexico and elsewhere are actively resisting their incorporation into this neoliberal pattern of global integration. In today's world, it makes little sense for peasant communities to insist on struggling to eke out an existence. The logic of the market modernisers would 'reassign' these large segments of the population to more socially desirable locations through the seemingly 'neutral' workings of the marketplace. Instead, as much as one-third of Mexico's population has chosen to attempt to shape an alternative route. These people are not the isolated country bumpkins of yesteryear; rather they are members of societies that have become quite socially adept at maintaining some degree of independence: they survive under conditions that are often described as being 'infrahuman,' managing a complex array of resources, crossing frontiers as others might navigate a high-speed thoroughfare, negotiating in hostile institutional settings to find employment, transferring funds and then often choosing to return to their 'backward' communities. They clearly are trying to implement their own plan for the future: every year they transfer from other parts of Mexico and from the US resources equivalent to more than 40 per cent of the value of rural production. It is incumbent upon us to determine whether their alternative vision might not offer better opportunities for us all, including those of us locked within the confines of the modern, global economy [Barkin 1998a, 1998b].

For those of us committed to the construction of an alternative model, responding to the demands of the majority and the needs of the earth, the neoliberal prescriptions to macro-economic management only make our task more difficult. With a rich heritage of experiences from people around the world, it is possible to forge constructive responses that will improve the lot of those who are presently excluded, while improving conditions for many others who are now suffering the terrible consequences of globalisation: declining real wages and a deteriorating quality of life. We will be on much more solid footing by casting our lot with those who have steadfastly re-

sisted the drive towards globalisation, than by responding to the siren calls of latter day repentants.

Notes

1 They increased at a rate of 11 per cent a year between 1988 and 1993, accounting for 50 per cent of the increase in employment in fixed establishments, according to the economic censuses [Rendon 1999]. The author goes on to point out, on the basis of the National Employment Surveys, that 70 per cent of these workers are not salaried and accounted for 42 per cent of all the labour force in urban areas with more than 1,00,000 people in 1996.

2 This work is one product of a collaboration with M Desai and A K Sen (1992) to develop an 'Index of Social Progress' to measure the magnitude of the basket of opportunities available to the Mexican people.

3 The sizeable decline in the Gini coefficient from 0.5137 in 1994 to 0.4885 in 1996 illustrates the complexity of these measurement problems. Real monetary incomes declined sharply during the period for *all* income groups, including the so-called middle classes and the self-employed, as well as the very rich; as a result, the apparent reduction in inequality was the result of a larger decline in the incomes of the wealthy than an increase in the incomes of the poor In the process, the 1996 household survey revealed that *every* income group spent more than it received that year, in contrast to the findings from 1992, when only the poorest 60 per cent of the population overspent [Romano 1996, cited in Rendon 1999].

4 Even these payments are being abruptly truncated, as Nadal (1999) documents quite forcefully in his analysis of the environmental impacts of corn production under the NAFTA.

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American Communalism and Indian Secularism

Religion and Politics in India and the West

Robin Archer

Much of the Indian debate on secularism is built around what seem to be the common sense assumptions about India and the west. But a close look at the impact of Protestant Puritanism on the relationship between religion and politics in the US suggests that these assumptions are mistaken. Far from having fundamentally different experiences, there are some striking similarities between India and the US: similarities which draw attention to potential long-term dangers for India.

IN this paper I want to make a contribution to the debate on secularism and communalism which has been at the centre of Indian intellectual and political life for more than a decade. My starting point is the observation that, either explicitly or implicitly, many of the participants in this debate make use of a comparative framework which rests on certain apparently uncontroversial assumptions about India and the 'west'. In particular it is assumed (1) that western societies share common beliefs about the appropriate relationship between religion and politics and that these beliefs have been institutionalised in common secular practices; and (2) that the fate of secularism in India (and even the question of whether or not it is desirable) is best understood by highlighting fundamental differences in the relationship between religion and politics in Indian and western societies. I want to suggest that each of these assumptions is mistaken.

These assumptions take a variety of more specific forms, but they are widely made by both opponents and proponents of secularism. However, they play a particularly prominent role in the work of 'anti-secularists' like T N Madan and Ashis Nandy, who have been at the centre of much of the recent debate. And so, at certain points, my argument will focus more specifically on their work.

Secularism in the West

Let me begin with the first assumption, according to which a common set of secular beliefs and practices govern the relationship between religion and politics in the west. In fact, whatever other commonalities these societies may have, in this respect, they are marked by extraordinary diversity. Even if we look only at one small subset of western societies – those rooted in English cultural, political and economic traditions – we find a full range of possible outcomes. The US has a secular state, but not a secularised society. Britain has a secularised society, but not a secular state. And only Australia has both a secular state and a secularised society. Moreover, even where similar outcomes have been achieved in different western societies, these outcomes have often been reached by very different paths. Both the US and France have established secular states. But, in France, this was achieved by mobilising militant anti-religious movements, while, in the US, it was achieved without any such mobilisation. Likewise, both Britain and France have largely secularised societies. But, in France, secularisation was accompanied by massive conflicts between church and state, while in Britain, such conflicts were limited.

The case of the US is especially interesting. For there, as in India, we can study what happens when a formally secular state presides over a deeply religious society: a society from which religious issues continually emerge and seek to force themselves into the political arena. Many of the major political conflicts which have shaped the US can only be understood once they are viewed in this light: the abolitionist struggle against slavery in the mid-19th century, the prohibitionist struggle against the production and consumption of alcohol in the late 19th and early 20th centuries, the anti-abortion crusade since the sixties, and even (though it is hardly in the same league) the struggle over the president's sexual morality today. These were not the only important conflicts in American hisotry, but they were all defining conflicts that absorbed the energy and ingenuity of millions of activists and voters, and played a key role in defining their political loyalties. As we will see, each is a manifestation of a recurring struggle between the inheritors of a Puritan Protestant tradition, which seeks to ensure that the state uses its authority to make of the US a Godly society, and a 'secular' coalition, that rejects any government activity which seeks to promote a particular version of godliness.

The US is also especially interesting because it was there that the concept of religious 'fundamentalism' was invented. It was first used in the 1920s, not to refer to Islamic, Hindu or other foreign zealots, but to refer the home grown evangelical zealots, who were fighting secular humanism in all its forms, and especially in the classroom, where a mass movement of 'fundamentalists' sought to ban Darwinian theories and replace them with the teaching of 'creation science' based on the 'historical truth' revealed in the *Bible*. Indeed the term 'fundamentalist' was invented by these zealots to describe themselves [Marsden 1991].

Finally, the US is especially interesting because, in the literature on Indian secularism, it has frequently been treated as the paradigm case of a 'western' society, and as the paradigm embodiment of 'modernity'. Consequently, it has, from the beginning, been used as the benchmark for judging the extent to which independent India really is secular, and for assessing whether or not the establishment of a fully secular state is either possible or desirable in Indian conditions [Smith 1963:8, Luthera 1964:11-13].

Puritan Legacy in the US

In what follows, then, I want to focus on the US. I want to start by using the US case to consider some of the more specific claims which have been used to underpin the assumption that there has been a common western experience in matters pertaining to secularism. This assumption is often justified by referring to ideological or intellectual developments which are said to be common to the west. In particular, a common western experience in matters pertaining to secularism is said to stem

from either the Protestant Reformation, or the Enlightenment, or both [Madan 1997:275-76, Madan 1998:298,319 and Nandy 1998:325].

The US case presents a number of problems for this thesis. Although it has been usual, especially in the middle of the 20th century, to view the US as having been born liberal [Hartz 1955], the colonies which formed it were in fact founded well before the eighteenth century European Enlightenment. As a result, some of the basic enduring features of the political culture of the US were formed under the influence of pre-Enlightenment doctrines. It is certainly true, however, that, first and foremost among these, was a particular brand of Protestantism.

The settlers who established the northern colonies of New England in the 1630s, were religious radicals, who, when they seemed unable to prevail in England itself, sought to establish a new, model righteous society in America, based firmly on the principles of Puritan Protestantism. But their Protestantism was in no way conducive to secularism, or even to the tolerance of religious dissent. On the contrary, the founders of New England colonies like Massachusetts were the Ayatollah Khomeneis of the early 17th century.

What was the system of government, and what was the relationship between religion and politics, in the societies which the Puritans founded? The Puritan state was a minority 'dictatorship of the holy' [Miller 1956a]. The Puritans believed in predestination – that God had already chosen those that would be saved. Those so chosen would know who they were because they would have a personal religious experience, and only those who could publicly attest to having such an experience – never more than about one-fifth of the population – could be full members of the official 'Congregational' church and hence of the state, and only they could elect their religious and political rulers.

However, these rulers were not to act according to the wishes of those who elected them, but, rather, in accordance with the will of God, which, for most purposes, was thought to be revealed in the *Bible*. There were, of course, a number of disputes about just what an orthodox interpretation of the *Bible* revealed, but all agreed that orthodox represented the truth, from which no dissent could be allowed. Proponents of dissent were fined, whipped, exiled, and eventually, if they persisted, hanged. In short, the Puritan state was not just a dictatorship; it was an authoritarian theocracy.

The idea that there should be a separation of church and state was completely alien to the Puritan tradition. On the contrary, the unity of religion and politics was axiomatic, indeed it was central to the very rationale for founding these new societies.

Though New England was the centre of American intellectual life, and the ideas developed there had an enduring impact on subsequent American thought, not all the colonies which later established the US were founded on Puritan principles. Southern colonies like Virginia were also hostile to any separation of church and state, but there it was the Anglican church (i e, the Church of England) that was established as the official state church. In the mid-Atlantic colonies, however, there was no established religion, in part, as in New York, because the proponents of establishment were divided over which church to establish, and in part, as in Pennsylvania, because of the influence of Quakers, who, unlike the Puritans and Anglicans, were doctrinally committed to toleration. These exceptions aside, for a century or more, most American colonies, whether in the north or south, actually reduced the small amount of religious freedom that was then available in England [Murrin 1990].

How then, did the US, come to have a secular constitution which institutionalised the separation of religion and politics? Three developments were important: the two 'Great Awakenings', and the revolution.

The two Great Awakenings were mass Protestant revival movements in which highly-emotional waves of religious frenzy, promoted by charismatic and often uneducated itinerant preachers, swept through the country. The first Great Awakening took place in the 1740s. The second rolled on through the first half of the 1800s. These movements altered the religious geography of the US. They democratised the Puritan legacy, and spread it throughout the country, in a new pietistic and evangelical form [Miller 1956b, Murrin 1990, Hatch 1990]. The new pietistic and evangelical movements rejected the restrictive Puritan prescriptions that limited those chosen by God to an elite minority, and, instead, made the kind of personal religious experience which Puritanism called for, easily available to all: indeed, in the name of God, they demanded it of all. But they simultaneously carried forward the Puritan idea that the *Bible* revealed the will of God, and that government should act to reorganise society in accordance with that will. This combination of ideas proved to be a powerful mix, and it has remained a central element of American culture to this day. Ideologically, then, the Great Awakenings were conducive to democracy. They were not, however, conducive to secularism.

But the Great Awakenings also had another effect. For they left in their wake a multiplicity of sects and denominations and an inescapble religious pluralism: not just between the various colonies, but also with them, as Methodists, Baptists, Presbyterians and others, split or displaced the previously dominant (Puritan) Congregationalists, Anglicans and Quakers [Murrin 1990:25-26]. This made it increasingly difficult for colonies (and later states) to sustain official preference for any one church. By 1833, even the Puritan redoubt of Massachusetts had disestablished its official Congregational Church.

The emergence of an inescapable religious pluralism also had a decisive influence both on the framing of the new federal constitution of the US in the 1780s, and on the first amendment, passed soon afterwards, which stipulated that "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof". Here we begin to see Englightenment ideas influencing American political thought. But while key individuals like Thomas Jefferson and James Madison were personally influenced by these ideas, it was not their personal preferences that were principally responsible for establishing what Jefferson later described as "a wall of separation between church and state" [Murrin 1990:29, Pole 1978:58, 1993:92]. For as we have seen, most Americans, whether adherents of the old Protestant churches or the new evangelical-pietistic ones, belonged to traditions that were, in principle, against such a separation. Rather, there were two other factors which were crucial to the emergence of a secular constitution.

First, faced with a multiplicity of competing religious organisations, many denominations and sects were now more concerned that the authority of the state might fall into hostile hands, than they were with the unlikely prospect that they could acquire exclusive control of it for themselves. A unified regime of church and state, which ensured that the whole community would live a more Godly life, was still considered optimal, but, if that were now impossible, a neutral state, that enabled one to live a Godly life oneself, was the next best thing, far better than being forced to live according to the edicts of some other religious group [Pole 1993].[1]

Second, the framers of the constitution saw, that given the passions which religion aroused, it would have to be excluded from the political arena, if their nation-building project were to stand any chance of success. By promising to keep the federal government out of religious affairs, the states would be free to retain their own institutional arrangements: those that favoured establishment could retain that arrangement, as could those that favoured political neutrality towards different churches. Only under these circumstances would all states be likely to ratify the proposed constitution [Howe 1965: 19-23, Wilson 1990].

In short, the US adopted a secular constitution "not because religion was unimportant to the colonists, but rather because it was too important" [Marsden 1991: 86]. Those, like Jefferson and Madison, who were influenced by Enlightenment ideas, supported the separation of religion and politics for fear that religion would corrupt politics. But a far more widespread reason for supporting this separation was the evangelical fear that politics would corrupt religion [Howe 1965: 5-8].

Let me spell out two conclusions which emerge from this discussion.

First, the anti-secularists (along with many other contributors to the Indian debate) make the specific claim that western secularism emerged as a result of either the Protestant Reformation, or the Enlightenment, or both. But the establishment of a secular constitution in the US does not bear this out. A particular brand of Protestant ideology was indeed a strong influence, but it did not favour secularism. Enlightenment ideology did favour secularism, but key elements of American political culture emerged before its influence was felt, and when that influence was felt, it was largely restricted to a section of the revolutionary elite.

Second, the specific importance claimed for Protestantism and the Enlightenment is embedded in a more general claim: namely, that the values embedded in the dominant ideological or intellectual traditions of society, play an important role in explaining whether or not secularism can emerge and sustain itself. Thus, according to Madan (1997:261), "what exists empirically, but not ideologically, exists but weakly". The US case shows that this, too, is misleading. Whatever their role in other western countries, it was not ideological traditions that gave rise to secular institutions in the US, and even less was it the classical commitments of high theological thought, as Madan (1998:303-7) seems to suggest. Of greater importance were more prosaic and pragmatic considerations, like the desire of sects and denominations to protect their separate organisations, and the need to maintain a consensus if the nation-building efforts, to which political elites gave priority, were to succeed. The political attitudes of religious groups are profoundly affected by the context in which they find themselves.[2] For many Protestant sects and denominations in the US, the need to coexist with a number of well-supported competitors, came to outweigh purely ideological considerations.

A False Emphasis on Differences

Let me turn now to the second assumption which is present in much of the literature on secularism. According to this assumption, the prospects for secularism (and even its desirability) can be best understood by highlighting fundamental differences in the relationship between religion and politics in India and the west.

But, at least with respect to the US, many of the differences that have been highlighted, either do not exist, or do not help to explain the development of secularism. A hierarchy of increasingly specific characteristics have been identified as constituting the key differences between India and the west.

First, it is said that India is different because the secularisation of society has been very limited, and secularisation must be widespread if a secular state is to survive and prosper [Madan 1998:298]. But we have seen that the society over which the (atypically) Enlightenment-influenced Jefferson presided, was every bit as deeply religious as the society presided over by the (atypically) Enlightenment-influenced Nehru. Jefferson was, in a sense, a kind of American Nehru: influenced by the emerging thought of the French revolution, just as Nehru was by the emerging thought of English socialism. If Nehru's secular constitution 'imposed' Enlightenment values on a religious society in India, Jefferson's did so no less in the US.

Second, even if secularisation is also limited in the US, it is said that India is different because of the particular kinds of religious belief that dominate there. In particular, intellectual traditions in the US were suffused with Protestant Christianity, which is said to be the only religious tradition conducive to secularism. Indeed, according to some, secularism was a 'gift of Christianity' [Nandy 1998:325, Madan 1998:298, 319]. But we have seen that, though Protestant beliefs do indeed course through the veins of the American body politic, this tradition was far from conducive to secularism.

Third, even if Protestantism itself is irrelevant, it is said that India is different because classical Indian religious thought posits a "hierarchical relationship" in which politics is subordinated to religion [Madan 1998:303-7], and that Indians themselves have a 'totalising' religious worldview which makes it both undesirable and impossible for them to separate political from religious questions [Madan 1997:209 and n3 and 1998:302, 318]. But we have seen that a similar hierarchy is posited by classical Puritan religious thought, and that this also fostered a 'totalising' worldview: one which "penetrates all partial and fragmentary worlds in which men participate" [Kleppner 1979:183-85], and in which "the unity of religion and politics was so axiomatic that very few men would even have grasped the idea that church and state could be distinct" [Miller 1956a: 142-43, 148, Swierenga 1990: 150-51].

Some Important Similarities

Here, however, I want to take the argument one step further. I want, not only to dispute the relevance of the differences which others have highlighted, but also to make the stronger claim that there are actually striking similarities between India and the US. More particularly, I want to highlight similarities between contemporary India, and the US in the second half of the 19th century. I want to suggest that consideration of these similarities might help to clarify some of the possible consequences of contemporary Indian developments. I do this somewhat tentatively – conscious of the scepticism which such a claim is likely to invoke. But at the very least I hope to convince you that a different kind of comparison with the US may be worth exploring further.

There are a number of general structural similarities which contemporary India shares with the US in the mid-19th century. Both are continent-wide societies, with a predominantly rural population, a largely agrarian economy, a British legal system, a federal polity, a well-entrenched democracy, and a first-past-the-post electoral system. There are also similarities between the American party system that emerged in the mid-nineteenth century, and the party system that now seems to be emerging in India. It is these similarities which I want to discuss here.

The electoral history of the US is punctuated by intense periods of 'realignment' in which the social bases of party support, and the issues around which

political conflict is centred, are redefined. These periods are followed by longer periods in which a new party system, based on the new alignments that have emerged, and the party loyalties which they generate, is frozen in place – or, rather, becomes relatively immutable – for several decades.

Here I want to focus on the 'third party system', which emerged in the 1850s, from the developments that led to the American Civil War, and lasted until the depression of the 1890s. Prior to the Civil War the Democratic Party – the party of Jefferson – was the dominant force in federal politics. Its dominant position had been strongly reinforced by reforms it initiated in the 1820s and 1830s, which, amongst other things, removed the remaining property qualifications on white male voters. The realignment of the 1850s ended the dominance of the Democrats and lead to the birth of a powerful new opponent – the Republican Party.

The most important component of the new Republican Party were the pietistic and evangelical movements which grew out of the religious revival of the Second Great Awakening. As we have seen, these inheritors of the Puritan tradition had accepted the formal separation of church and state, but they remained committed to the task of moral regeneration and of establishing of Godly society in America. All around them they saw terrible sins, and, irrespective of their differing sectarian and denominational affiliations, they rallied together to force the government to use its authority to uphold their notion of righteousness, and to enforce what they deemed to be a Godly way of life. These neo-Puritan social movements demanded that the government act to end a wide range of sinful practices in saloons, schools, in the desecration of the sabbath and elsewhere, but more than anything else they demanded an end to the truly abominable sin of slavery.

A second important component of the new Republican Party were anti-Catholic nativist movements (like the 'Know-Nothings'), which grew out of a backlash against mass (especially Irish) immigration, following the European famines of the 1840s. These nativist movements – 'nativist' in the sense that they were movements of those who were born in the US – party overlapped with the pietistic and evangelical movements. To the sectarian Protestant imagination (as indeed to many liberal humanists), Catholicism was not just another Christian denomination, it was an international, authoritarian conspiracy – perhaps even the work of the anti-Christ – which posed a threat to the America's culture and values not unlike that which Communism was deemed to pose in the twentieth century.

These two groups of movements – the pietistic movements for the abolition of slavery, saloons and other sins, and the anti-Catholic nativist movements – joined with a third component – the remains of what had, until then, been the main opposition Whig Party – found the Republican Party and dominate federal politics.

Those who rejected the call for government intervention to uphold the cultural norms of particular religious and ethnic groups, coalesced around the Democratic Party. In the process they strengthened the salience of its identity as the party of secularism and (European) ethnic diversity. To Catholics and non-pietistic Protestants in the north, the core Democratic message was that it is not for the government to decide whether drinking alcohol, and various other social and religious practices, are immoral. Let each community follow its own values and its own values and its own way of life. Strange though it now sounds, the core Democratic message to the south was similar. It is not, they said, for the government to decide whether or not slavery (or, later, segregation) is immoral. Let each community follow its own values and its own way of life. Thus, in both the north and the south, the Democrats represented themselves as the party of 'personal liberty', and of cultural and religious *laissez-faire*. Their opponents characterised them as the party of 'Rum, Romanism and Rebellion'.

The Democratic Party was not 'secular' in the (French) sense that its supporters were hostile to institutionalised religion. On the contrary they were typically members of 'liturgical' religious communities, which placed special value on the formal ritual practices of hierarchically-organised churches. They thus rejected pietistic beliefs, which deprecated ritual and instead emphasised each individual's personal conversion experience, their personal moral behaviour, and their personal relationship with God. Catholics were paradigmatically liturgical, but so too were many Protestants, notably Anglicans and German Lutherans. These differences between liturgicals and pietists fed into different attitudes towards politics. Liturgical churches believed that it was not for humans to foreshadow the work of God, by trying to create a kingdom of righteousness on earth. For this reason they were suspicious of pietistic efforts, which they tended to view as fanatical, and they were especially resistant to efforts to draw the state into pietistic moral crusades, since this challenged the paramountcy of the moral authority, which they claimed for themselves, and sought to impose on their members. It was in this sense that the Democratic Party and its supporters were secular. The upheld the belief that the state should remain neutral in matters of religion, lifestyle and personal morality.

The result of the realignment of the 1850s, was a party system in which each of the two main parties became a kind of 'political church'. This does not mean that they represented any particular sect or denomination. On the contrary, both were composed of a complex coalition of different social groups, each defined, in part by ethnic origin (native, German, Irish, Swedish, etc), and in part by religious affiliation (Methodist, Baptist, Anglican, Catholic, etc). Rather, the parties were political churches in the sense that they represented, and bound together, two distinct ethno-religious subcultures: a pietistic one represented by the Republicans, and a secular one represented by the Democrats. For most Americans, the act of voting was an expression of their identification with one or the other of these two subcultures.[3]

Here is a party system that looks similar to that which is emerging in contemporary India. During a decade of realignment, the old Congress-dominated party system has been displaced, and, as in similar periods in the US, there have been a number of short-lived 'third party' successes. Now, however, the outcome of this process of realignment is becoming clearer. Responding to the incentives generated by the first-past-the-post electoral system, political forces are coalescing around two main parties. In their ideology, social base, and organisational infrastructure, these two parties share important similarities with the Republicans and the Democrats in the second half of the 19th century.

The BJP, like the Republicans, has established itself as a 'communal' party of religious revival and assertion. And, like the Republicans, it has a social base in the dominant religious community (which in each case is organisationally and ideologically disparate), and an organisational infrastructure linked to highly-motivated extra-parliamentary mass movements. The (new, realigned) Congress, like the Democrats, is seeking to re-establish its credentials a 'secular' party of resistance to religious assertion. And, like the Democrats, it has a heterogeneous social base among groups, both inside and outside the majority community, which

reject the political demands of revivalism, and an organisational infrastructure based on political patronage: a legacy of its previously dominant position.

As a result, the issues which provide the defining conflict of both party systems are also similar. In each case, this conflict concerns whether or not the state should promote the values, practices and symbols of the dominant religious tradition. Like the Republicans, the BJP is committed to a programme of cultural homogenisation, through state enforcement of particular religious and moral norms. Like the Democrats, the Congress is recommitting itself to the defence of cultural diversity, through the maintenance of state neutrality in questions of religious and personal morality. Even many of the specific issues through which this defining conflict is expressed are similar. Mobilisation against the largest religious minority, their supposed foreign loyalties (Muslims to Pakistan, Catholics to Rome), prohibition of alcohol, support for schools run by minority communities, the spread of foreign languages, sexual morality, and the use of sacred texts in public schools: all are among the issues which generate the most passionate disputes in both cases.

In both cases the social tensions which these conflicts foster, result in recurrent outbreaks of communal violence, in which lives are lost, homes and places of worship are attacked, and the neutrality of the police is called into question. In the US, prior to the upsurge in labour unrest in the late 19th century, the suppression of ethno-religious riots was the major peace-time activity of the armed forces [Reinders 1977].[4]

Long-Term Dangers

What insights does this comparison provide for those seeking, either to influence future developments in India, or to understand their likely course? A few simple points are worth emphasising.

First, the fear that the establishment and maintenance of a secular state will necessarily weaken religious beliefs and institutions, and the charge that pro-secular attitudes are necessarily anti-religious, are both completely misplaced. In the US, a long line of distinguished sociologists, from Tocqueville (1969) to Lipset (1996), have observed that quite the reverse is true. The long separation of religion and politics has fostered a continual process of renewal, which has enabled religious institutions and beliefs to flourish to an exceptional extent.

Second, comparison with the US raises important questions about what criterion should be used for judging whether or not secularism has been successfully institutionalised. If religious activism in politics is seen as evidence that secularism has failed in India, then secularism must also be judged to have failed in the US.

Third, comparison with the US highlights the importance of disaggregating categories like Protestantism and Hinduism, if an adequate understanding of the political impact of religion is to be reached. Clearly caste communities frequently have radically different political loyalties. But it would also be interesting to explore whether Hindus committed to Bhakti and other 'personalist' traditions, have different political loyalties to Hindus committed to more 'ritualist' traditions, just as pietistic and liturgical Protestants have different loyalties in the US.

Here however I am more concerned to draw attention to some other, potential long-term consequences of current developments in India. The similarities between the party system now emerging in India and the American party system of the second half of the 19th century, suggest that consideration of the subsequent history of the US may help to clarify some of these potential long-term consequences. Let me make it clear that I am not pursuing this comparison in the spirit of those American political scientists in the fifties, who sought to highlight the virtues of their system, and urged all and sundry to emulate it. Rather the comparison I am pursuing is more in the nature of a warning: a warning about some of the potential dangers of the kind of party system which is currently emerging in India.

In no democracy is the party system a simple reflection of the multiple interests and issues which are present in that society. For the party system also helps to pick out and strengthen the salience of some of these interests and issues, and weaken the salience of others. In short, the party system helps to establish which interests and issues are to be recognised as politically important. By reinforcing the salience of ethno-religious interests, the US party system in the second half of the 19th century undermined the prospect for class politics, by weakening the salience of economic interests and of distributive justice. Voters were, of course, concerned about their economic interests, but, by and large, when they went to the polls, taking their cue from the agenda set by the party system, they voted not for their class, but for their ethno-religious interests.

This is one of the main reasons, why, even in the late 19th and early 20th century, when the US had become one of the leading capitalist economies in the world, it still failed to produce an electorally important labour or socialist party. It also helps to explain why, to this day, the US has weak unions, insecure workers, negligible interest in redistributive policies, and no real welfare state.

Can these outcomes be avoided in India? It hardly needs to be said that no society is destined to simply follow a path already laid down by others. The enduring role of religion in the US is itself evidence of that. But the similarities between the American party system in the second half of the 19th century, and that now emerging in India, should give pause for thought: especially to those motivated by the ideals of the socialist tradition.[5]

Through the first third of the 20th century, when labour and socialist parties became major contenders for government in every advanced capitalist society, in the quintessentially capitalist US, political controversy was focused on issues like the prohibition of alcohol, and on whether to teach Biblical or Darwinian science in schools [Marsden 1991]. Not until a quarter of the labour force was thrown out work in the Great Depression of the thirties, did a social democratic tinge appear in American politics. Roosevelt responded to the depression with his 'New Deal' programme, which repositioned the Democrats as a semi-social Democratic Party, and forced a realignment of the party system. But by the last third of this century, ethno-religious issues had reasserted themselves. The cadres of the Christian coalition are now more important to the Republican Party, than union activists are to the Democrats, and issues like abortion and the sexual behaviour of the president dominate political space.[6]

My argument in this article is informed by a larger concern about the use of all-embracing concepts like 'modernity', and the 'west'. These terms are frequently used to suggest that western societies share a common core of cultural characteristics, one of which is secularism. But in the norms that govern their attitudes to religion and politics, western societies share no such cultural core. In these matters, even a single, paradigm, western society like the US has no common core of cultural norms.

The anti-secularists are right when they say that India has a political culture which is deeply influenced by religious traditions. But they are wrong when they say that India does not have a secular political culture. For, just like the US, it has both. Each country has two powerful political

subcultures, tied together by a mix of ideology and self-interest. One seeks to subvert the religious neutrality of the state. The other seeks to maintain it. In complex democracies like India and the US, political culture is not monochromatic: it is composed of multiple competing traditions, of which these two are the most important.

In both countries there is a constant political struggle to see which of these traditions will prevail. But in both countries there is also a vital, often-ignored, meta-struggle about the salience of these traditions, and about whether or not they should continue to define the main terms of political conflict.

Notes

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1 Madison, for example, appealed to precisely this fear, during the debate on religious freedom in the Virginia legislature: "Who does not see", he argued, "that the same authority which can establish Christianity, in exclusion of all other religions, may establish with the same ease any particular sect of Christians, in exclusion of all the other sects" [Pole 1978:83].

2 The political behaviour of practising Catholics in the 20th century is a particularly striking example of this. Practising Catholics have typically supported right-wing or authoritarian parties in countries like France, Italy and Austria, where nominal Catholics are in an overwhelmihg majority, but in countries like the US, Britain and Australia, where nominal Catholics are in a minority, they have typically supported left-leaning parties.

3 For the most influential treatment of these issues see Kleppner (1970 and 1979) and Jensen (1971). For shorter versions of their arguments see Kleppner (1978 and 1981) and Jensen (1970). For a recent summary of the wider literature see Swierenga (1990).

4 There are many other comparative themes which would be well worth exploring further. Here, however, there is no space to do more than indicate some of the issues that deserve more detailed comparison. These issues include: (1) The role of dalits and blacks: both highly oppressed groups, but within the dominant religion tradition. (2) The similar, vicious charicatures and stereotypes to which adherents of the largest minority traditions – Muslim and Catholic – are subject. Both are deemed to be disloyal, uneducated, fast-breeding, poverty-ridden, potentially authoritarian, voting fodder. (3) The centrality of struggles over education. And (4) political mobilisation in cities like New York and Bombay, where large-scale, ethnically-diverse immigration (whether across land from all the regions of India, or across sea from all the regions of Europe), was met by working class nativist, sons-of-the-soil agitation (whether of the Shiv Sena or the know-nothing variant).

5 Of course there are also important differences between these party systems. Amongst the most important differences in India are the impact of caste and regional politics, the sustained presence of a 'third party' left, and the diffuse ideological influence of the socialist tradition. Whether some combination of factors like these can enable India to avoid an American outcome, would be a worthwhile focus for further comparative inquiry.

6 For the ongoing, and in some respects increasing, importance of religion in contemporary American elections see Kellstedt and Noll (1990) and Miller and Shanks (1996).

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Rural Labour in India: Role of State and Markets

Jeemol Unni

Empowering Rural Labour in India: Market, State and Mobilisation edited by R Radhakrishnan and Alakh N Sharma; Institute for Human Development, New Delhi, 1998; pp 440, Rs 450 (hard), Rs 195 (paper).

IN the wake of liberalisation, globalisation and the dominance of the market, rural labour in India has been orphaned. This is not to say that in the pre-liberalisation period all attention was focused on them. If that had been the case rural labour in India would have been 'empowered' today and there would have been no need for this volume. The era of the dominance of the market is also reflected in the lack of interest in social science research on the theme. While the number of readers in society seem to have come down, the remaining demand for non-fiction is mainly concentrated on textbooks, books on computers and management, particularly with the focus on industry. In such a scenario, the Institute for Human Development has to be credited for its zeal to publish a volume focusing attention on the role of state and public action in empowering this forgotten sector of society.

This book consists of 21 papers and an overview article. It is divided into three parts. The first part consists of six papers which present a view of the changing realities of rural labour markets in India. The second part consists of 10 papers reviewing various state interventions in this market. The third section, consisting of five papers, reviews instances of public action through unions, political parties and NGOs in the rural labour markets.

The first chapter provides an analytical overview of the theorising on rural labour markets in developing countries. These theories have been largely preoccupied with wage determination. However, there is a large segment of the rural labour market whose conditions and behaviour cannot be analysed within the framework of wage-centred theories. The rural labour market consists of individuals who obtain various non-wage incomes and any theory has to incorporate the wider question of determinants of returns to labour, both wage and non-wage. It is forcefully argued that theoretical developments need to strike new ground beyond the boundaries of mainstream economics incorporating social institutions and the power structure.

The papers by Bhalla and Sen present fascinating analyses of the changing realities in the rural labour market pre- and post-economic reforms. They argue that diversification of the workforce was the major factor behind rising real wages, and reducing poverty before 1991 and the reverse process has led to deteriorating conditions for rural labour after 1991. Sen argues that diversification into the non-farm sector was encouraged by massive public expenditure during that period. The informal sector is often treated as though it consists primarily of self-employed persons. Breman makes an interesting argument that there is considerable wage-dependency in the informal sector, and this component is growing. The papers by Jha and Krishnaiah are based on micro-studies in Bihar and Andhra Pradesh where they study the functioning of rural labour markets, through labour contracts.

Hanumantha Rao argues that the economic reforms may have possible backlash effects on rural industries and employment. This can occur through displacement of rural industries, 'exit' of inefficient enterprises, and rise in capital-intensity in the industrial and services sector. V M Rao argues that the relief-cum-support measures needed by the poor in the emerging context have to be different from the earlier anti-poverty programmes. The objective would be to support potentially productive and enterprising poor people for a length of time needed to make them self-reliant.

Dev reviews the existing social security programmes of the government for the rural poor and suggests strategies to enhance the effectiveness of the schemes using experiences from various states. The working of most of these programmes is in fact far from satisfactory, excep for some schemes in Kerala. The other papers in the second part analyse existing state interventions such as minimum wages (G Parthasarathy), self-employment programmes (Kurien and Rajeev) and rural work programmes (Nayyar, Terhal and Hirway, Datt, Singh and Reddy and Swaminathan). Parthasarathy argues that while fixing minimum wages, earnings of female members, seasonal unemployment, provision for holidays and social security such as provision for sickness and education of children should be included. In their paper, Kurien and Rajeev call for a reconsideration of the universal need relevance of the IRDP/JRY programmes. These resources may be better utilised in primary education and health to the poo which will generate significant non-farm employment. Similarly, Nayyar argue than while wage-employment programme are essential, they need to build up th productive capacity of individuals and areas to generate larger employment on a sustained basis. Datt cautions that while targeted public work programmes are useful component of an overall pro-poo development strategy, they cannot substitute for a sustained broadbased growth process. Overall, there is agreement tha existing state interventions to provid employment to the rural poor are onl fire-fighting measures and in the long run do not contribute much to sustaine development.

The third part of the book makes inter esting reading. Various authors analys non-government initiatives to improv the status of rural labour. The tradition method of unionisation has been studie for agricultural labourers (Gill) in variou states, e g, Kerala (Kannan) and Andh Pradesh (Reddy). Sharma and Kum analyse historically peasant mobilisatio in Bihar under the extreme left groups

The final chapter reviews the rece trend of growth of non-governmer organisations and their impact on the rur labour market. Chandra and Reddy argu that while it is necessary to be cautiou about the tremendous spurt of NGO acti vity and international funding for them their role in organising and mobilisin

those who have been at the receiving end of the rural labour market has to be recognised.

Overall, the volume presents a useful collection of articles for researchers, NGOs, students and teachers interested in the changing realities in the rural labour market. The impact of structural adjustment on the rural poor and need for state and private initiatives to improve, or at least protect, their interests are clearly focused on. In the final analysis state interventions devised so far fall short of helping the rural poor in a sustained manner. There is need to review the concept of employment security for this segment of the population. New and innovative methods need to be devised. This volume points to the possibility of critically examining existing non-government initiatives in this direction. For a country of India's dimensions and diversity, ultimately only the government machinery can reach all sections of society. The replicability of NGO initiatives on a wider basis has to be reviewed in this context. There is no method for empowering the rural poor nationwide that can completely bypass the bureaucracy and government.

The Challenge of Ecofeminism

K Ravi Srinivas

Ecofeminism as Politics: Nature, Marx and the Postmodern by Ariel Salleh; Zed Books, London, 1997; pp xvi+208, $ 22.5, £ 14.95 (paperback).

THIS book is ecofeminism as articulated by Ariel Salleh, who has made significant interventions in debates on ecofeminism, deep ecology and social ecology. By proposing a common framework that encompasses peace, gender, environment, socialist perspectives based on materialist analysis and insights from critical theory. This is an ambitious project, given the range of perspectives and issues she tackles in this book. Her ecofeminism is claimed as an embodied materialism that aviods the trap of essentialism.

In the first part she provides an overview of women and ecopolitics and argues that ecopolitics, however radical it may claim to be, is often insensitive to gender issues. She places women as the class base for change. This, she argues, is not based on any inherent or essentialist view but on the current positioning of women, many of whom she refers to as re/sisters in the context of capitalist patriarchy and increasing influence of capitalism on a global scale. She is critical of liberal feminism and argues that mainstream feminism has not provided a radical critique of androcentric colonisation by the west. According to her "Women do indeed have radical chains; their social containment in a sexualised reproductive sphere is bolstered by exclusion and harassment from male-controlled institutions...An emanicipation of the relational sensibility of women and its reclamation by women will release earth energies."

In the first part she provides the basis of the ecofeminist analysis and 'embodied materialism'. She analyses the common subjugation of women and Nature through western history, in both theory and practice and domination of women as Nature. Drawing on the work of Sherry Ortner she argues that the core assumption of this domination is the man/woman=Nature divide is furthered by instrumental reason. This dualistic logic negates both women and Nature and women are denied of any voice or agency. In other words this subordination of women and Nature negates life and it is a 'psychosexual fuse'. Based on this she builds up a critique of Marx and Marxism. Marxist critique also suffers from this fatal flaw in that both women, in their capacity as reproducing the conditions of production, and Nature, which sustains the very means of production, are relegated to the background and are not given the consideration they deserve in the works of Marx. She does not dismiss Marx altogether but only points out that these were the missing elements in his works although he was sensitive to the question of degradation of Nature. She argues that the fundamental contradiction in the capitalist patriarchal system is the Nature-woman-man relationship. Capitalist patriarchy, according to her, only aggravates the domination of women and Nature and the global assault on Nature, women and indigenous communities has to be understood in this perspective. She negates the claims that development will benefit women.

Next, she argues that ecofeminism goes beyond the second wave and liberal feminism. By building on socialism, feminism and ecology, it is possible to provide an interpretation of man-woman-Nature relationship that is sensitive to the concerns of women across continents for they face similar, if not identical, threats from capitalist patriarchy. The epistemological framework of ecofeminism as advocated by her is explained in subsequent chapters. The disconnected objectivised prerspective of Nature as *terra nullius* and dualisms that haunt the paradigms which explain man-woman-Nature relationship are exemplified in diverse projects ranging from bioprospecting, genetic engineering to mapping the human genome. Such projects are being resisted by re/sisters, indigenous communities who provide alternative perspectives. An alternative epistemology can be formulated from the life and struggles of indigenous communities, an epistemology that negates narrow specialisation, that tries to understand Nature as dead but through continuous interaction and awareness about the nexus between life, Nature and culture. This epistemology based on embodied materialism is an alternative to the technoscientifc understanding of the environmental crisis and development as the solution for this crisis.

She calls for a reading of Marxist theory that favours abstraction grounded in practice and analysis at several levels. She claims that a standpoint of non-identity which goes beyond the dualistic mode of thinking can be the basis for ecofeminist theory and praxis. In other words we have to rework the historically deleted identity with/in Nature. Such an exercise she claims is part and parcel of dialectic analysis and this is not another essentialist exercise. According to her, "Ecofeminist politics is a feminism as much as it offers an uncompromising critique of capitalist patriarchal culture from a womanist perspective; it is a socialism because it honours the wretched of the earth, it is ecology because it reintegrates humanity with Nature, it is a post-colonial discourse because it focuses on deconstructing Eurocentric domination".

By taking on the various theoretical perspectives she has put forth an ecofeminist critique of Marxism, postmodernism, liberal feminism, etc. As a

critique her work is well argued and ample examples from the grass roots re/ sisters and movements are provided throughout the book. But one is afraid that her work does not take her very far for she tends to generalise the material conditions of reproduction, and the reconciliation between universal viewpoint she advocates and essentialist assumptions is not worked out neatly. Further her epistemology is a brilliant critique but does not provide us a solid theory or framework to combine a historical materialist perspective with a transdualistic understanding of man-woman-Nature relationship.

Perhaps part of the problem is with her extensive use of man/woman=Nature as the underlying logic of western civilisation. Whether this logic alone can be used, irrespective of the context and other social conditions, as the major cause to explain domination of women as well as Nature is a question that one faces while reading her work. Zimmerman (1994) points out that Peggy Reeves offers an alternative account that challenges Sherry Ortner's claim. Morover as Sylvia Bowerbank (1996) has pointed out claiming to speak in the name of Nature or true Nature is problematic, even when such claims are made by women.

The term capitalist partiarchy is used so frequently that it becomes a cliche. The author does not examine in depth the relationship between patriarchy and other relations of production/reproduction. Non-western societies or cultures need not be looked at as ideals or as the alternatives to western capitalist patriarchy for they may subscribe to the logic of man/woman=Nature in one way or other. Throughout the book as one comes across uncritical comments or observations of various struggles, indigenous communities, and some of them are suggested as alternatives. But the issues are more complex than what the author presumes. For instance she is critical of the usage of Geographic Information Systems (GIS) and warns against its use by multinational. But as articles in an issue of *Cultural Survival* pointed out the indigenous communities are using information gathered by GIS as well as traditional knowledg to stake their claims and fight for thei rights. Although her critiques of dee ecology are well meaning it seems that sh fails to notice that deep ecology an ecofeminism need not necessarily b antagonistic. Recent interviews with Arn Naess (published in *Alternatives, Capi talism, Nature, Socialism*) confirm thi Ecofeminism is not inconsistent with goal of deep ecology.

Nothwithstanding these observation this is a significant work and will furthe the debate between ecofeminists an others. It is an important contribution t the ecofeminist discourse.

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Mountains and Material Life

Tirthankar Roy

Natural Premises: Ecology and Peasant Life in the Western Himalaya, 1800-1950 by Chetan Singh; Oxford University Press, Delhi, 1998; pp xx + 252, Rs 475.

UNDOUBTEDLY the most fertile new area of historical scholarship in India in the nineties has been 'environmental history'. The role of geography in economics can be studied in broadly two ways. One is to write the history of, say, forests, rivers or 'wastes' as manifold productive resources. Another is to write the history of regions in which geography deeply influences economics. Most of the recent publications in this field are along the former line. A key question in this literature is how colonialism affected economic opportunities via access to natural resources.

Chetan Singh's book on the western Himalaya in the colonial period asks the same question. But it belongs in the latter kind of work. That is, the book is written from the perspective of a region in which 'the sheer presence of the Himalaya' influenced the economy in an overwhelming way. In this account the terrain, the natural resources and material life form closely connected elements. Politics matters insofar as it adapted to or shaped these connections. The book is centrally about these connections. In this respect the book is a singular contribution within the environment history literature. More than that, many of its conclusions have far-reaching significance. It is an excellent introduction to the economic history of a region on which few scholarly works exist. The nature of the interaction described here should apply in parts to a wide area of the mountains beyond western Himalaya. The book challenges almost every stylisation about peasant life that tends to arise from studying agriculture in the plains. The quality of scholarship is impressive and bears the signs of a long and earnest commitment. And barring the rather heavy methodological paragraphs at the beginning and at the end, the book is written in a crisp and clear style.

The seven chapters deal with political economy, agriculture, commons, pastoralism, forests, commerce, and society. Ecology is the primary link between these themes.

The area of study is the present-day Himachal Pradesh. Local environment was a limiting factor in this region. So much so that a 'typical Himachal village' had always been rare (p 42), the most common kind of settlement being a 'hamlet' located close to terraced fields. Agriculture was a main activity only in the low-lying areas, but elsewhere, it was not only a relatively less important occupation, but also extremely labour-intensive. The proportion of uncultivable land in total area was far higher in the hills compared to the plains, and increased steeply with elevation. Agriculture was combined with animal husbandry, pastoralism, mining, commerce, and extraction of diverse resources from the forests.

In the colonial period, the region was composed of a number of Indian states. Geography affected state formation by setting the 'natural frontiers' between them. The relationship between the states and their subjects depended on the kind of economic activities possible. The states needed to and were able to diversify sources of revenue. Natural resources, trade or livestock were no less, frequently more, important as sources of taxation than agriculture. But even with such diverse incomes, the states could rarely become centres of power or wealth. While private property rights in land were not well developed in the pre-colonial period, traditional rights to use were quite strong, for land was neither wealth nor the only means of livelihood. For the same reason, hill society was characterised by a relative lack of social differentiation compared to the plains.

The importance of livestock as an alternative to agriculture made wastes an important resource. Singh's notion of waste as 'intermediate space' reduces the distance between forests and farms, often seen as alternative uses of land. The nature of wastes influenced the kind of livestock that were kept by the peasants, and the emergence of pastoralism as an independent livelihood. Property rights in wastes underwent changes during British rule. There is a view that 'village communities' had rights to use of wastes and forests in pre-colonial Himalayan regions, and that colonialism changed their use by destroying these communities. By contrast, the book argues that such communities had been generally rare, and were created by the colonial state's attempt to define property rights in wastes.

The natural limits to self-sufficiency created opportunities for local and long-distance transactions within the region. Two examples are grain and manure. Peasants in low-lying areas exported surplus grain, and depended on seasonal migration of flocks from alpine villages for manure. This picture of mobility and local commerce in a region where wheeled transportation was almost non-existent is remarkable. Transactions in local necessities combined with extensive trans-regional trade passing through Himachal, the chief product of long-distance trade being wool. Historians who have dealt with long-distance trade of colonial India know that transfrontier trade remains an insufficiently researched area, despite being important for the economy of north India. The book helps to fill that gap.

Colonialism, however, brought in its wake a different and a more penetrating form of commercialisation. Colonialism defined private property rights in land in common with the rest of India. More land was alienated in the late 19th century than before. There also opened up new commercial opportunities of which the most important, and extensively written on, is the market for timber. While forests acquired commercial value, that very process encouraged conservation by the government. Competing claims on forests, such as those of the pastoralists, became peripheral, more so as timber overwhelmed all other customary sources of revenue. Together, the destruction of forests and conservation efforts that focused on the more profitable types of trees changed the very nature of the forests.

On some aspects, the reader may wish for a longer discussion than is available in the book. Basically, the book's scope has a certain ambiguity. It is not exclusively about 'peasant life'. Nor does it give a complete picture of the regional economy, which would require more detail on, say, artisanal industry and commerce. Such ambiguity, however, is inevitable and the book does a fairly balanced job. The account is not always explicitly chronological. In particular, changes occurring in the later colonial period are discussed in specific contexts, for example, timber extraction. This seems to leave some other types of change underexplored, migration being one example.

But, unquestionably, this is a substantial and neatly written work in a new area. It should be read, not only by specialists, but also by anyone with an enduring interest in mountain inhabitants.

Some Aporias of History

Time, Truth and Play in Dangs, Gujarat

Ajay Skaria

Historians and social scientists confronted with pasts imagined differently from history have resorted to one of two strategies: converting oral traditions into the equivalent of archival sources and then writing histories that adhere to the norms of western professional history writing; or by denying any significant traffic between history and other froms of conceiving pasts, subsuming the latter under the rubrics of myth or more recently, memory. This article argues that the Dangi's 'vadilcha goth' or tales about ancestors are an engagement with modernity and its paradigmatic trope, history. The subaltern practice of anomalous and hybrid histories, in the Dangs, produces a multiplicity of pasts quite different from those multiple histories which historians conceive of and increasingly call for.

WITHIN days of commencing fieldwork in Dangs in Gujarat, I realised that Dangis had a rich fund of 'vadilcha goth', or stories about ancestors. These 'goth' often reached back into the 17th and 18th century; they involved detailed accounts of the activities that the narrators' ancestors were involved in. The question is: how is one to think of these stories about the past?

The issues this question raises are more complex than might appear at first sight. The problem is posed by the emergence since the 18th century of an understanding of history which basically shapes the ways in which we think about pasts. Previously, as Reinhart Koselleck remarks, 'histories had existed in the plural'. With the Enlightenment, history emerged as "a general concept which became the condition of possible experience and possible expectation". It "gained an enhanced degree of abstraction, allowing it to indicate a greater complexity, which capability has since made it necessary for reality to be generally elaborated in a historical manner"[1]

"Reality to be generally elaborated in a historical manner": few remarks could be more appropriate. Consider simply how the oppressed and marginal – whether nations, women, lower castes, or other subaltern groups – have sought to give themselves a history, how often the call has resounded: "We must have a history".[2] To claim a history, and to claim that this history is not simply something that can be added on to an already existing history but transforms the idea of history itself – this is a strategy that not only historians but subaltern groups have repeatedly resorted to. Note that what is being claimed here is not simply pasts (this would be unexceptionable, for everybody has pasts) but history. The other pasts are subsumed variously under the rubrics of memory, myth or chronicle; they are what history may grow out of but is fundamentally different from; they are at best the prehistory of history.[3] With modernity, as so many have said or implied, history emerges as a privileged form of being. Thus it is that one of the more serious charges that scholars can levy against each other is often that they are 'ahistorical' (it is surely significant that there are no widespread parallel conceptions of being without sociology or anthropology, and that there are some sorts of parallels in politics and economics).

I do not wish to go into the questions of why history should thus become a paradigmatic trope of modernity, or how the distinction between history and other pasts is maintained. Suffice to say for now that these matters have to do with a variety of aspects of modernity: with the significance accorded to agency, and how having history (making history) is one way to claim such agency; with the significance accorded to reason, and how history is always necessarily from the point of view of the rational subject; with the significance accorded to time as not merely a static backdrop but a dynamic element which itself a principle of transformation, and how history is precisely this kind of narrative about time. The point I am making is much more modest: it is that those of us dealing with the pasts of marginal or subaltern groups have necessarily had to engage with history in this modern sense. We can never be innocent of the modernist trope of history, any more than the subaltern groups we write about can be.

So the question could now be formulated more sharply: how do we, and the subaltern groups we write about, engage witl history? When as historians and socia scientists, we have been confronted witl pasts imagined differently from histor (as, say, with many oral traditions) w have usually resorted to one of tw strategies. Such scholars as Jan Vansin (who in many senses put the study of ora traditions on a disciplinary footing) an his many brilliant students have proceede by converting oral traditions into th equivalent of archival sources, and the writing histories that adhere to the norm of western professional history writing In the process, they have produced nove and exciting histories of regions an subjects, histories that would hav remained impossible if we had stuck t written records. Politically too, ora history has been a way of contesting th colonial refusal to acknowledge that th colonised had any history. Yet thi strategy, though not only valuable bu absolutely required in many contexts, doe almost self-confessedly ride roughsho over the alternative historicities – th different ways of conceiving past presents and futures – that might b involved in oral traditions. For much or history in this genre, rather, oral tradition become a form of history, and the diffe ences between the two are minimised.

A second, intimately linked strateg resorted to by many oral historians, an almost an organising principle of th ethnographic method, involves denyin any significant traffic between histor and other forms of conceiving past subsuming the latter under the rubrics c myth or, more recently, memory. It i salutary to recall that when Levi-Straus made the distinction between hot societie that have history and cold societies th

have myth, he sought implicitly to affirm myth over history. But so hegemonic was the notion that history was the desirable way of thinking of pasts that to describe any society as possessing simply a mythic consciousness, as lacking history, seemed not merely inappropriate or wrong but even politically conservative.

I do not wish to adopt the historicist tacks that were taken to criticise Levi-Strauss, or that, in a related vein, have been taken in recent times to criticise anthropology's practices of othering; I do not wish to claim that I espy history everywhere. What worries me is something else. It is that in this strategy both myth and memory are usually cast as that which is spatially or chronologically apart from history. Thus, scholars conventionally assume that oral traditions survive most vigorously in non-literate and 'traditional' societies. With the emergence of a literate culture, oral traditions about the past are expected to be slowly forgotten, to be replaced by a literate historical culture. It was in this spirit that Ashis Nandy once remarked that the majority of Indians still have a mode of thinking which is distinct from history.[5] Such remarks often seem to presume an innocence from history. And even if it could have been claimed in earlier centuries, alternative historicities today are not simply innnocent of history but emerge through an engagement with it.

In this context, I would like to argue that vadilcha goth are not local traditions still preserved because of some Dangi isolation from the larger world. Rather, they are an engagement with modernity and its paradigmatic trope, history. By this, I do not mean that they are anti-modern (as Partha Chatterjee has remarked acerbically, one can hardly choose to be modern or anti-modern, one can only talk of strategies for coping with modernity);[6] rather, I refer to an engagement that exceeds the modernities which the colonial and post-colonial state and elites have espoused. I would like to focus here on two crucial dimensions of this Dangi engagement: the ways in which it refigures and exceeds modernist time and truth. In the process, I hope to foreground the subaltern practice of anomalous and hybrid histories, which in Dangs produces a multiplicity of pasts quite different from those multiple histories which we, as historians, conceive of and increasingly call for.

The Time of Goth

Dangs is an approximately 660 sq mile area that now forms a district in south-eastern Gujarat. It is inhabited largely by bhils, koknis, and varlis – communities that the modern Indian government would classify as scheduled tribes, and that the British described as the wild tribes. In the 18th and 19th century, Dangs was ruled by several bhil chiefs. Though it never formally became part of British territory, its chiefs were subordinated to British power in the early 19th century. In the 1840s, British power in the region was further consolidated when colonial officials secured a lease of Dangi forests. Since forests covered most of Dangs, this effectively meant that the whole region came under British authority. As part of their efforts to produce more timber from Dangi forests, colonial officials prevented Dangis from using forests for subsistence, causing widespread and persistent local resentment.

As used in Dangs, the word goth can be broadly translated as story, narrative or account, and is ubiquitous in everyday life, being deployed to describe a range of narratives. People tell their goth to visiting officials, which is to say that they make a representation. They tell the goth of what they did during the day. And of course they tell goth of divine figures, of hunting, of ancestors, of former times. So goth in that sense can be the story or account of virtually anything.

Nevertheless, there are broad genres of goth. Stories of Dangi pasts are often referred to interchangeably as 'juni' goth, 'mohorni' goth or 'puduncha' goth – all phrases meaning 'stories of former times' or 'old stories'. Within these juni goth there are at least two broad genres – the 'devdevina' goth, or stories of gods and goddesses, and the vadilcha goth, or stories of ancestors. The bulk of the devdevina goth, literally 'stories of the gods and goddesses' tell of dealings between deities and spirits such as Vadudev, Bhutdev, Simariodev, Vaghdev, Sitalamata, Kanasarimata or the many malevolent female spirits known as joganis. There are also goth of the two major popular epics of the subcontinent, the *Ramayana* and the *Mahabharat*. These epics, radically different from the textual versions of the plains, are situated within Dangs. There is the village of Pandva, where the Pandav brothers visited; the village of Subir, where Shabiri Bhilin stayed when she met Rama; and several other such places.[7] Devdevina goth are set in a very distinct time – that before the time of the humans. The goth are often about the making of the physical and geographical features of Dangs by gods, goddesses and spirits.

In contrast, vadilcha goth is often used as a shorthand to refer to all stories involving humans. The word 'vadil' can mean both lineage ancestor and, more broadly, elders, whether living or dead. The time of humans does often involve divine beings, and such stories are both vadilcha goth or devdevina goth. Some of these tell of ancestors' encounters or dealings with spirits, gods or goddesses; they are about how Dangs and other regions were made suitable for humans. They tell, for example, of how humans were given corn to cultivate with, how the 'mahua' liquor that Dangis drink was discovered first by Vadudev and then passed on to humans, how kingship was given to some Dangi chiefs, and so on. However, most vadilcha goth have an entirely human cast. Some are about the loss of forests to the forest department, or the coming of the British. Others are about the everyday lives of ancestors: of their migrations from village to village, their harassment by the British and the forest department, their modes of livelihood, their alarm at the first motorised vehicles, the prices they paid for goods, and of the disputes amongst bhil chiefs.

Running through vadilcha goth is a very distinctive understanding of time. What I mean by this can be illustrated by contrasting it with the acknowledgement of coevalness, the preferred strategy in that classic, Time and the other. Fabian argues that imperialism and anthropology were both fundamentally based on the denial of coevalness, that anthropologists placed the societies they studied in a time different from and before their own. In opposition to this, Fabian called for the acknowledgement of coevalness, or a recognition of the shared historical time of anthropologists and the societies they studied.[8]

I do not wish to imply that Fabian was wrong in calling for such a strategy; it is certainly often required for strategic and political reasons. But let us step back from that issue for a moment, and ask: what is the vision (broadly shared by a substantial section of the most radical and exciting social theorists of the eighties and early nineties) from within which the denial of coevalness seems such an imperialist act, and acknowledgement of coevalness the most appropriate strategy against it? A deeply modernist one, in the very direct sense that modernity is about a particular kind of relationship with time. As Vattimo reminds us, "modernity is that era in which being modern ... becomes the fundamental value to which all other values refer". Modernity defines itself by claiming to be at the cutting edge of time, to be always contemporary, and to always be

overcoming itself (this after all is the paradoxical sense in which one way to be modern now is to be post-modern).[9] The acknowledgement of coevalness seized on this index, time, to claim modernity for the anthropologist's subject, and to attack the old imperialising strategy of denying modernity by denying coevalness.

Time in vadilcha goth is subtly different from this. The two major epochs (this word is not entirely appropriate, as will become clearer below) within which most Dangis frame their pasts are 'moglai' and 'mandini'. Roughly speaking, moglai is the time when Dangis moved in the forests without restrictions, when they raided the plains to collect a due called 'giras', when they had a distinctive pattern of political authority. Moglai, in this sense, informs radical politics in the Dangs today. Mandini is both an epoch, and an event that marks the end of moglai. With mandini, often associated with the British subordination of the region, Dangi political authority was undermined and they could no longer move about as formerly, or raid surrounding plains.

Now, moglai could easily be glossed as the Dangi version of a romanticised golden age of freedom. But this would be an extremely reductive reading: the epochs of moglai and mandini involve rather a forceful acknowledgement of coevalness. The notion of mandini seizes on colonial and post-colonial state power and accords to it a revolutionary role in the shaping of contemporary Dangs. It creates a shared historical time with imperialism and colonialism, and points to the particular forms of domination involved in that time. Furthermore, the epochs mime the distinction between the pre-modern and the modern. In the truisms of western thought, for example, the modern is cast as a radical departure from history, as a revolutionary epoch – this is why all that preceded it can be lumped together as pre-modern, and before history. So too with mandini which is similarly a revolutionary epoch, above all constituted by colonial and post-colonial state intervention.

And moglai, even if its etymological roots may be a reference to Mughal rule, in everyday usage often refers to that which precedes mandini. Subsumed within moglai are several other epochs which had been important formerly. For example, there was the time of 'gavali raj', which may be a reference to the reign of the yadav kings of Devgiri (later Daulatabad, near Aurangabad) who reigned from A D 1216-1312.[10] Similarly, there is the epoch of 'Aurung-badshah', the term Dangis use to refer to what may be the Mughal emperor Aurangzeb. There is also the period of what is known as the 'kuplin-bahadurin', which may be a reference to the Company Bahadur, as the British East India Company was sometimes called. But these epochs are not associated with any major events; they are invoked by narrators principally as part of a narration of epochs that demonstrates knowledge of vadilcha goth. In other words, the veracity of goth is not dependent on their being from these epochs; for this, it is sufficient for goth to be from moglai.

Even more to the point, moglai and mandini do not stop with an acknowledgement of coevalness. These Dangi epochs are subtly different from epochs or periods in the sense that professional historians use such terms. For the latter, an epoch or a period is marked by chronological contiguity and continuity: despite some overlap, it could be broadly said that one epoch succeeds another. When Fabian insists on the acknowledgement of coevalness, what he means is that it should be recognised that the colonised share the same position in the linear time of modernity as the colonisers, a time after the pre-modern. Sometimes, Dangi narrators too talk similarly: thus, moglai often is identified with the precolonial and early colonial period, and mandini is associated with 'gora raj' or British rule. But this is not the only way many Dangis talk. Quite as often, Dangi epochs traverse diverse chronological times, almost running parallel to each other. It is not unusual for events that occurred as recently as 20 years back – such as say incidents during hunts – to be part of moglai, and those that occurred 200 years back to be part of mandini. That is to say, mandini is not only after moglai but also along it, parallel to it. Indeed, in some very suggestive ways, moglai is about what is extra-colonial. By extra-colonial, I obviously do not only mean pre-colonial – it is precisely that kind of chronological separation that I am trying to avoid. What I mean is something that often includes the pre-colonial, but is in more important ways defined in opposition to the colonial and postcolonial, in opposition to the relations of domination over Dangs that surrounding plains areas have established. Thus, rather than being about an unsullied Dangi space, or an autonomous world or hidden transcript of subaltern groups, moglai is about spaces and times created by traversing and exceeding colonialism and the relations of domination that it is associated with.

Ranajit Guha has pointed to how much history writing is statist, which is to say that it "authorises the dominant values of the state to determine the criteria of the historic". Even stories of resistance to this narrative are comprehensible within its terms:

> This is a level quite accessible to statist discourse: it is never happier than when its globalising and unifying tendency is allowed to deal with the question in gross terms. It is a level of abstraction where all the many stories ... are assimilated to the story of the Raj. The effect of such lumping is to oversimplify the contradictions of power by reducing them to an arbitrary singularity – the so-called principal contradiction, that between the coloniser and the colonised.[11]

Goth of mandini and moglai can be thought of as sustained engagements with this statist narrative. Goth of mandini tell of the interventions of the British and the post-colonial state – mandini, above all is about the initiatives of the 'sarkar'. But they extensively displace that statist discourse, and focus instead on Dangi refigurings of it. Goth of moglai move further beyond the 'arbitrary singularity' of that discourse: they traverse mandini (rather than being always before it) and create a multiplicity of local and regional narratives that have little do with the concerns of statist power. Through their refiguring of time by the initiatives of the sarkar, through their exceeding of statist narratives, goth underscore the domination that has marked their colonial and post-colonial modernity, they render its intimacy into an exteriority.

THE CONSTITUTIVE OUTSIDE OF TRUTH

A similar engagement with modernity is very much foregrounded in Dangi concerns with establishing whether vadilcha goth are 'khari', a word which can for the present be glossed as 'true'. Maybe we can begin understanding khari goth or true stories through what is beyond them, such as the many tall tales in Dangs. Often very whimsical, with a sting in the tail, they are about a range of themes – about the sexual peccadilloes of men and women and gods and goddesses, about heroic figures who successfully undertake daunting tasks, or about tricksters who get out of the most difficult situations. While there is no specific word designating these stories, they are recognised as a distinct genre. Most of all, they are considered as imaginary, in the sense of bearing very tangential relations to figures of the past or present.

These stories could be called false, but that is not a word many Dangis would voluntarily use to describe them. Instead,

It may be helpful to think of these goth as above all about play. One way to think of the playfulness of these goth is to consider their ludic element. Imaginary goth are often narrated at occasions known as 'tamashas', usually held in the slack agricultural period before the monsoons. Large events where alcohol flows freely, tamashas, enacted increasingly by semi-professional performers and troupes from the neighbouring area of Khandesh, are sometimes spread across two or three evenings, and are attended by hundreds of men and women, many of whom walk over a day or two from distant villages to participate in it. Imaginary goth are also narrated at casual or spur-of-the-moment gatherings, when men and women are relaxing in the evenings. Such occasions are overwhelmingly preponderant in relation to the tamasha: they occur almost every second or third evening in some corner of every village. On such occasions, some person with a particularly good reputation as a 'gothiya' or teller of tales may, under pressure from others, start off on a goth; slowly, others from surrounding huts may join in. And if there is mahua liquor to lubricate the telling and listening, the occasion gains in gusto and vigour.[12]

The understanding of imaginary goth as playful is also evident in the way the figure of the gothiya or storyteller is constructed for these goth. In all genre of goth, of course, the gothiya is so central as to render meaningless those conventional oppositions which assign such oral traditions to a pre-authorial folk world, and contrast it to the culture of print and the emergence of the author. But the reasons for and manner in which the gothiya is accorded centrality vary. In imaginary goth especially, it is the narrative skill and style – the pauses, interjections, glosses, gestures, and sudden flurries of detail that narration involves-of the gothiya (usually though not necessarily, a man) which is valued: he makes the goth anew with each telling.

Of course, several of the goth told on such occasions are extremely contentious, and lead on to heated arguments. But nevertheless, the playfulness of these occasions allows goth a certain extricability from partisan, political or other considerations, and contentiousness rarely prevents goth from being told or performed.

Such playfulness may tempt us to read these goth as marginal or inessential. That is to say, imaginary goth could seem as a relatively inessential form of leisure, a break from the more serious work of everyday life which khari goth are about; it could seem that it is the very inessentiality of imaginary goth that defines the more important khari goth. Even some Dangi readings may seem to support such an interpretation: on some occasions, imaginary goth have been described to me as 'emaj', a word which could be translated as 'just like that' or 'inconsequential'.

Now, it would be easy enough to undermine such an interpretation. Imaginary goth form part of everyday Dangi language, with casual references to characters from them abounding in casual conversation; and highly contentious arguments often take the form of contenders narrating to each other goth supporting the kind of values they valorise. As such, it could be argued that these goth posit, sustain, challenge, contest and perhaps even create values central to many Dangis. Yet, there is something dissatisfying about undermining, in this manner, the interpretation of imaginary goth as marginal. To show that imaginary goth also involve relations of power – surely this is no more than a predictable preliminary gesture in a context where we increasingly realise the ubiquity of relations of power? And here, preliminary to what? To the point that imaginary goth are as central to Dangis, if in different ways, as khari goth? Here, centrality comes to signify an anodyne sameness (ironically, this is also the dominant way in which historicism today conceives difference), and any ascription of marginality to imaginary goth can only be understood as false consciousness or ideology.

Perhaps it would be more satisfying to work within the ascription of marginality but against the grain of the way in which our habits tempt us to read marginality. Maybe we should consider another sense in which imaginary goth are playful: their play in relation to the truth of khari goth. That is to say, because of their independence from time and place, they are considered to be beyond the claims to truth and falsity which khari goth involve. While khari goth are those that successfully sustain a claim to refer to a particular time and space, these stories do not even advance that claim, whether successfully or unsuccessfully. In this sense, they are not the negation of khari goth but its constitutive outside: they define what is outside the field of khari goth, cannot be judged by its criteria, and yet makes possible the very imagining of khari goth. It is precisely in this that their peculiar marginality resides: they are marginal not because they are inessential but rather because they come into visibility only at the margins of khari goth. Nor, even, is it adequate to think that when questions of truth become important, then khari goth predominate and playful or imaginary goth become impossible: forms of playfulness provide also the language in which vadilcha goth exceed the truth of history. To pursue these points, consider the enactment of khari goth.

Truth of Vadilcha Goth

In contrast to imaginary goth, vadilcha goth posit an intimate connection with time and space; every narration of them constitutes a claim to tell what actually happened at some specific place in some specific time. They involve the claim to be khari goth, or true stories.[13] But establishing most vadilcha goth as khari is a difficult task. This is not merely because they are highly fragmented and diverse, with virtually every locality, lineage or even individual having their own different goth. It is also because of their inextricability, in the eyes of most Dangis, from practical, partisan, political, emotive, calculative or other considerations. Consider goth around the lineage of male descent. The lineage has since the early 20th century been one of the crucial arenas within which Dangi politics is conducted. There are currently 14 chiefs who are officially recognised by the Indian government as the descendants of the former rajas or kings of Dangs. Myriad others are recognised as their close kin, while yet others are recognised as descendants of those who held land-grants or village headships under these rajas. Such recognition as descendants is not only an honour (turbans and shawls are publicly bestowed on the rajas and their associates at a darbar held annually), but is often accompanied by a substantial political pension.

In this context, to know and tell goth of the power wielded by one's ancestors is to make an implicit claim to some sort of power. Also, people often narrate goth designed to impugn claims of other lineages, claiming for example that a person widely recognised as the male descendant of some vadil is not the true descendant, or that the true raja or patil was not the specified vadil but someone else. Even lack of knowledge of goth takes on different implications depending on its relationship with claims to power. Officially or popularly recognised chiefs are not particularly disconcerted when they do not know goth: their authority is by now too secure in usual contexts for it to matter, and lack of knowledge is easily ascribed to vagaries of transmission. But those

chiefs who are neither officially nor popularly recognised feel deeply worried when they do not know their vadilcha goth. Such is the case with one lineage of Vasurna. The father of the present lineage head did not listen much to stories when he was young, and as a result the latter does not know the stories. Since the lineage now claims a share of Vasurna, he has expended considerable effort in meeting persons of related lineages who might know goth of his ancestors, plying them with them liquor and trying to prise stories about his lineage out from them – so far with little success. Had he known such goth, and were they persuasive, he might at least have secured some popular acceptance of his claims (though of course this would not have secured him official recognition). For well told goth can actually create power. Haipat Lasu, a distant descendant of the Ghadvi chief Silput raja, has through his inventive retelling of vadilcha goth secured popular authority as a chief far beyond what either descent, alliances or official recognition would allow him to claim.

Even where not so directly connected to personal claims to power, vadilcha goth are still deeply political. Goth of how the British took over the forests, of how ancestors rebelled against colonial power, of raids on plains by ancestors, of oppressive state practices, or even of the plenitude of modes of subsistence during moglai question the legitimacy of the state. Goth of how koknis and bhils behaved with each other in former times, of how koknis brought agriculture to Dangs, of how a particular witch was dealt with – all of these are involved in complex everyday politics.

Because of this inextricability of vadilcha goth from practical, partisan, political or other considerations, they are (unlike equally contentious imaginary goth) rarely performed on occasions like the tamasha or the 'thaali'. As events in which almost anybody can participate, these are scarcely desirable occasions for discussing such matters. More appropriate is everyday conversation. Old men and women, reduced to immobility by age, might often tell children and others the stories of their youth, and the stories they learned from their vadils. In evenings when friends get together and drink liquor, or during long afternoons when there are no pressing agricultural tasks, or while working with friends in the field, conversation may turn to vadilcha goth. What makes such occasions particularly appropriate is that, unlike the tamasha or thaali, they are not open to virtually anyone who might stray in. As with other everyday conversation, they involve spaces of intimacy with highly flexible and contextual boundaries. When goth that are relatively uncontentious are being told, such as those of how the British took over the forests, these spaces of intimacy have boundaries inclusive enough to take in virtually every Dangi (though not necessarily persons like me). But when the truth of goth narrated is a more contentious matter, the spaces are quite restrictive: it is not unusual for narrators to segue out of one goth into another relatively inoffensive one when a new person joins the group. And when goth involve challenges to the authority of very powerful persons or lineages, they are narrated almost secretively – often after nightfall, when only members of the narrators' huts and those they have specifically invited are around. Such spaces of intimacy are themselves deeply political: they are not based simply on friendships or blood-ties, but are also part of the effort to build alliances and persuade listeners that the narrator's goth is the most khari or true.

Persuasions of Truth

Yet, persuading listeners about what is or is not a khari goth is as a task scarcely innocent of colonial and post-colonial power. There is the importance of 'jod', which can be translated as conjoining. The confluence of different accounts, especially accounts by narrators whose interests are believed to diverge, is the most self-evident form of jod. Amongst the most persuasive forms of jod is the claim to affirmation of the goth by the written documents of the sarkar or state. Because the sarkar constitutes Dangi realities in profoundly inescapable ways, it is thought of as enormously powerful, often even omniscient in its knowledge of Dangs – its records will contain a true account Bhil lineages who consider themselves dispossessed often assert that proof of their having held the gadi or seat of power in former times will be found in the district records. The members of a dispossessed lineage of Ghadvi (one of the principal chieftancies in Dangs) went further in 1988. Seeking to assert a claim to the gadi of Ghadvi, they searched British records at the district headquarters at Ahuwa to find proof of their having formerly held the gadi. Meeting with little success, they ventured as far as Sakri in the old Khandesh district to find the records, again with no success. Now too, the insist that a photograph of their ancestor, the early 19th century Ghadvi chief Silput raja, can be found at Delhi.

Equally significant, in this context, is the association of writing and truth. As I have argued at length elsewhere, in the course of the 19th and early 20th century, the centrality of writing to the exercise of colonial power was accompanied by a fetishisation of writing, especially that associated with the sarkar – hence, of course, the emphasis on the written records of the sarkar in establishing the khari nature of a goth. But the aura of writing, with its connotations of power, extends further. Thus, some families in Dangs have written versions of their goth; this is thought to testify to their khari nature. In these senses, truth is thought of through tropes that are fundamentally colonial.[14]

This is scarcely to suggest, of course, that the records of the sarkar are always treated as khari. When these records contradict claims of goth, they are likely to be disregarded; they are significant only to the degree that they are invoked by Dangi narrators, whether to affirm or contest the khari nature of any goth. Besides, other kinds of jod are very important too, and sustained efforts are made to secure them. For example, in 1994, a discussion was held between various descendants of a 19th century Kokni, Dadaji Patil, where different versions of the 'same' goth (about how their ancestors moved from one village to another to eventually reach Dangs) were put together over two evenings to produce a khari account of their migrations.

Also, narrative strategies other than jod are important too in making a goth seem khari. Narrators are sometimes believed to be telling khari goth when they demonstrates a command of detail. Detail in a goth is evocative, linking it up in as many directions as possible with other goth. By alluding to details from other goth already considered khari, the khari nature of the narrrator's goth is established by association. Indeed, there is almost a superfluity of detail, an extensive elaboration of details that do not really matter. By introducing abundant detail in this way, narrators demonstrate their knowledge, showing that what they tell is likely to be true. Goth thus abound in references to now-vanished villages, to trees that stood at the time and place of the goth, to the clothes the protagonists wore, or how they looked.

Depth of recall is a another narrative strategy likely to make a goth seem more khari. The further back that a narrator can take her or his account, or the longer the number of ancestors through whom a person can trace descent, the greater the

creation of such histories. Also, while they may be radical in terms of their challenges to the canons of history, there is nothing necessarily radical about them in terms of their commitment to a related politics of subaltern empowerment. In some cases, the surplus of hybrid histories springs from their fetishisation of history, as for example in Hindu fundamentalist constructions of the Babri masjid-Ram Janmabhoomi dispute.[18] It is important to recognise this, for else we slip into claiming an (infra)structural site for hybrid histories; we assume that they are always already empowering for subaltern groups. It is not because hybrid histories are new or are always empowering to subaltern groups that they are fascinating; it is rather because subaltern struggles against domination will be about accentuating the hybridity of their histories; they will be about engaging with (challenging, affirming, ridiculing) that paradigmatic trope of modernity – history.

Notes

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1 Reinhart Koselleck, *Futures Past: On the Semantics of Historical Time*, translated by Keith Tribe, MIT Press, Boston, 1985, pp 200, 202.

2 Partha Chatterjee, *The Nation and its Fragment*, Oxford University Press, New Delhi, 1993.

3 I explore the relationship between history and other pasts in my *Hybrid Histories: Forests, Frontiers and Wildness in Western India*, Oxford University Press, New Delhi, forthcoming. The oral traditions discussed in this paper are narrated in the book.

4 See especially Jan Vansina's pioneering monograph, *Oral Tradition as History*, London, 1985, 2nd revised edition. For some thoughtful reflections on the forms of oral history, see Renato Rosaldo, 'Doing Oral History', *Social Analysis*, No 4, September, 1980 and David William Cohen, 'The Undefining of Oral Tradition' *Ethnohistory*, Vol 36, No 1, 1989, and especially David Newbury, 'Contradictions at the heart of the canon: oral historiography in Africa, 1960-1980', unpublished paper.

5 Ashis Nandy, 'History's Forgotten Doubles', *History and Theory*, vol 34, no 2, 1995.

6 Partha Chatterjee, 'Our Modernity' Sephis-Codesria Lecture No 1, Sephis-Codesria Press, Dakar, 1997.

7 For Dangi narratives of the *Ramayana* and *Mahabharat*, as well as a list of villages with names associated with the two epics, see D P Khanapurkar, 'The aborigines of south Gujarat', Unpublished PhD dissertation, University of Bombay, 1944, Vol II. See also K S Singh (ed) *The Mahabharata in the Tribal and Folk Traditions of India*, Indian Institute of Advanced Study, Simla, and Anthropological Survey of India, New Delhi, 1993; and K S Singh, *Rama-Katha in Tribal and Folk Traditions of India: Proceedings of a Seminar*, Seagull Books, Calcutta, 1993 for accounts of other such traditions.

8 Johannes Fabian, *Time and the Other: How Anthropology Makes Its Object*, Columbia University Press, New York, 1983.

9 For suggestive discussions of this point, and of the relationship between time and modernity, see Peter Osborne, *The Politics of Time: Modernity and Avant-Garde*, Verso, London, 1995; Gianni Vattimo, *The End of Modernity: Nihilism and Hermeneutics in Post-modern Culture*, Trans Jon R Snyder, Johns Hopkins University Press, Baltimore, 1988, p 99. Especially useful for thinking about colonialism and time is Dipesh Chakrabarty's 'Marx after marxism: history, subalternity and difference', in Saree Makdisi, Cesare Casarino, and Rebecca E Karl (eds), Marxism beyond Marxism, Routledge, New York, 1996.

10 David Hardiman, 'Small Dam Systems of the Sahyadris', in David Arnold and Ramachandra Guha, *Nature, Culture and Imperialism: Essays on the Environmental History of South Asia*, Oxford University Press, New Delhi, 1994, p 196.

11 Ranajit Guha, 'The Small Voice of History' in Dipesh Chakrabarty and Shahid Amin (eds), *Subaltern Studies IX: Writings on South Asian History and Society*, Oxford University Press, New Delhi, 1996, pp 1-6.

12 For some of these goth, see D P Khanapurkar, 'The Aborigines of South Gujarat', unpublished PhD dissertation, University of Bombay, 1944, Vol II.

13 Not all Dangi uses of the word khari posit an intimate relationship with actual happenings in a specific time and place – the remark that women are more vulnerable to evil spirits, or that all bhils are rajas, would be regarded as khari by most Dangis without reference to any actual happening.

14 See my 'Writing, Orality and Power in the Dangs' in Shahid Amin and Dipesh Chakrabarty (eds), *Subaltern Studies*, Vol IX, Oxford University Press, New Delhi, 1996.

15 F R Ankersmit, *History and Tropology: The Rise and Fall of Metaphor*, University of California Press, Berkeley, 1994, p 44.

16 On the emergence of singularising time, see David Landes, *Revolution in Time: Clocks and the Making of the Modern World*, Harvard University Press, Cambridge, 1983; Stephen Kern, *The Culture of Time and Place, 1880-1918*, Harvard University Press, Cambridge, Mass, 1983. On singularising time in a colonial context, see Frederick Cooper, 'Colonising time: work rhythms and labour conflict in colonial Mombasa' in Nicholas Dirks (ed), Colonialism and Culture, University of Michigan Press, Ann Arbor, 1992.

17 For a thoughtful critique of such constructivist positions, see Michel-Rolph Trouillot, *Silencing the Past: Power and the Production of History*, Beacon Press, Boston, 1995.

18 For a fascinating analysis of Hindu fundamentalist constructions, see Gyanendra Pandey, 'Modes of history writing: new Hindu history of Ayodhya', *Economic and Political Weekly*, June 15, 1994, Vol 29, No 25.

Sino-Indian Border Dispute Reconsidered

Neville Maxwell

The Nehru government sought to decide for itself where India's borders with China should lie and then impose the alignments it had chosen on Beijing, refusing to negotiate them. That meant that unless Beijing surrendered to India's territorial claims to Aksai Chin and areas north of the McMahon Line conflict was inevitable. China's military action in 1962 was reactive and pre-emptive, and that India suffered 'unprovoked aggression' is a self-serving myth. That there has been no settlement of the Sino-Indian borders is the consequence of Nehru's policies, to which successor governments, except Narasimha Rao's, have strictly adhered.

I
'The Chinese Aggression of 1962': India's Grand Delusion

IN his May 1998 letter to president Clinton the Indian prime minister A B Vajpayee justified his government's nuclear tests by citing China's 'armed aggression against India in 1962' and the unresolved Sino-Indian border dispute.[1] India's political class, taking its lead from Jawaharlal Nehru, has from the outset maintained that the dispute and border war were the result of China's expansionism and, at the last, a 'massive aggression' which took India by surprise and led consequently to the collapse of its army. China's account is contrary, charging India with intransigence and irredentism and presenting its own military action as reactive and pre-emptive. It is timely to reconsider, with the added perspective of nearly 40 years and in the light of new material, the causes, in the policies of the two governments, which led to war and left the border dispute unresolved.

The Republic of India and the People's Republic of China faced a common task when they came into existence in the middle of the century: completion of the conversion of their frontiers into boundaries. That was in fact among the first formal expressions of their new identity as modern states, as they moved to emulate and catch up with the states of Europe which in the preceding three centuries, in step with the emergence of nationalism and the rise of the nation-state, had pioneered the introduction of a new political institution, the boundary: a line agreed in diplomatic negotiations (delimitation), jointly marked out on the ground (demarcation), accurately represented on a map, and described in a treaty between two abutting sovereignties which thus recognised the limits of their own and their neighbour's territory.[2] Pre-modern states could exist within frontiers, which were not lines but areas, zones of transition between state powers: modern states need boundaries.

So far as China was concerned when the PRC was established in 1949, the problem of the Sino-Indian frontiers represented an important but small element of an immense task, negotiating or renegotiating to achieve agreed and accurately defined limits to sovereignty with about ten states, contiguous with China over tens of thousands of miles in often inaccessible terrain. Many sectors of that vast periphery represented the high-tide marks of foreign encroachments on the Chinese Empire, and the ousted Nationalist (Guomintang) authority had bequeathed irredentist commitments to the recovery of such 'lost lands'. Beijing's new men recognised that to take up that bequest would be to provoke intractable quarrels with many of its neighbours, particularly and most dangerously with the Soviet Union, inheritor of the vast far-eastern tracts of Chinese imperial territory annexed by tsarist Russia under the imposed treaties of Aigun (1858) and Peking (1860) Accordingly they decided that the new China would settle its boundaries on the alignments on which history had left them. Zhou Enlai used the occasion of the 1955 Afro-Asian Conference in Bandung to declare his government's approach:

> With some of our neighbouring countries we have not yet finally fixed our borderline and we are ready to do so...But before doing so, we are willing to maintain the present situation by acknowledging that those parts of our border are parts which are undetermined We are ready to restrain our government and our people from crossing even one step across our border. If such things do happen, we should like to admit our mistake. As to the determination of common borders which we are going to undertake with our neighbouring countries, we shall use only peaceful means and we shall not permit any other kinds of method. In no case shall we change this.[3]

Later developments gave that declaration of policy much significance, and it therefore deserves analysis. Zhou makes the first step towards boundary settlement a declaration that some sectors are undetermined, with their identification. Second comes a stand-still agreement, rigorous mutual maintenance of the status quo coupled with readiness to admit and correct error if trespass occurs. Third, he looks forward to future negotiations, and offers the assurance that China will use none but peaceful means in resolving territorial disputes. Finally, he issues a warning that China will not tolerate any other approach, implying that a neighbour's use of force would be met by force.[4]

The succeeding half-century saw China implementing the policy laid down by Zhou for the most part consistently and scrupulously, and with marked, and now nearly complete, success. Boundary treaties were negotiated and sealed with Burma, Nepal, Pakistan, Afghanistan, Mongolia, Korea, and Laos. Negotiations are in train with Viet Nam and, to the extent that New Delhi will allow, with Bhutan: in the case of Russia and the central Asian states of the former Soviet Union negotiations have been completed, and boundaries agreed subject to caveats on a few specified points on which disputes have been left unresolved for settlement at some indefinite future date. In three instances 'peaceful means' were replaced by force of arms: with India, the USSR and Viet Nam.

In the case of the Sino-Soviet borders, Moscow initially refused to renegotiate the 19th century treaties by which the Tsars had annexed the great tracts of the Qing Empire which became Siberia and the Maritime Province, suspecting that Beijing's insistence on negotiation cloaked the intention to reclaim that territory Conflicting readings of the treaties which made the Amur/Heilungjiang and Ussuri Wussuli Rivers the borders led to Soviet use of force to assert the claim to exclusive rights over the entirety of the rivers and all the islands within them, and China's resistance took the neighbours to armed conflict in 1969, and the brink of nuclear war.[5]

It was not until 1987 that, under Gorbachev's leadership, the USSR agreed to renegotiate the Sino-Soviet borders and accepted the relevant principle of international law – that, in the absence of any treaty provision to the contrary, the navigable nature of the border rivers meant that the line of separation of sovereignties lay not on the Chinese bank, where

Moscow's claims had put it, but along the thalweg (an imaginary line along the deepest part of the main channel). The corollary was that the riparian neighbours enjoyed equal rights in use of the rivers. Beijing responded promptly to Gorbachev's reversal of his predecessors' position, negotiations were quickly opened and led in due course to a treaty giving the needed precise definition of the Sino-Soviet boundaries, on the eastern rivers and on China's western border. In 1997 the heads of state of Russia and China, meeting in Beijing, proclaimed their border settlement as 'a model for resolving problems left over by history' through negotiations based on equality, mutual understanding, and concessions.[6] The Central Asian successor states to the USSR have also settled their boundaries with Beijing.

In the case of Viet Nam, China, under Deng Xiaoping's leadership, used a trivial boundary dispute, concerning distances of no more than a few hundred metres, as the pretext for an attack intended to 'teach a lesson' – the lesson being that China's hegemony must be accepted. That breach stands as a malign but solitary exception to China's otherwise principled and pragmatic approach to the settlement of boundaries.

In comparison to the magnitude of China's border problem, the task facing independent India when it emerged from the British raj in 1947 was minor. Extensive sectors of India's borders had already been transformed into boundaries by the departed imperial power. Where Pakistan had been separated, international boundaries had been laid by the Radcliffe Commission along what had been internal administrative divisions; the British, after wars and vexed negotiations, had agreed an Indo-Nepali boundary and demarcated it – that is, marked it out on the ground – and largely achieved the same with the other Himalayan states, Sikkim and Bhutan.[7] But the attempts of the British governments in London and India to reach agreement with China to create Sino-Indian boundaries had failed.[8] In the east, where what became independent India's North-East Frontier Agency (NEFA) marched with Tibet, and in the west, where Ladakh, in the Indian-held part of the state of Jammu and Kashmir, met Sinkiang and Tibet, there lay only frontiers – zones wherein the limits of sovereignty were indeterminate but, at first, separated. The potential for conflict, and the need for negotiation, lay in the inevitable impingement of the administrations of the two new states as those were extended into the frontier zones.

When administrative contact was made, the absolute and conflictual differences between the approaches of Beijing and New Delhi immediately became apparent.

To recapitulate: the Chinese approach, as outlined by Zhou Enlai at Bandung and implemented thereafter in practice, looked to the following steps: (1) identify and declare such sectors as required definition with the neighbouring government; (2) agree jointly with the neighbour on maintenance of the status quo so that contact between forward patrols, with the risk of conflict and casualties, could be avoided; (3) negotiate to seek agreement on a mutually satisfactory boundary line, taking into account any relevant treaties, current positions, traditional movements and uses, etc; (4) establish a joint boundary commission to mark out the agreed line on the ground; (5) seal the agreement in a new and comprehensive boundary treaty.

Before similarly summarising the elements of the approach evolved for India by Jawaharlal Nehru and his advisers in the first years after independence, it is relevant to consider the character and historical context of Indian nationalism, which had a powerful and pervasive effect on the Nehru government's approach to the problem of settlement of the Sino-Indian boundaries.[9]

In the 1950s and 1960s there appeared to be a clear distinction between two separate currents in Indian nationalism, on the one hand secularist, on the other religious, specifically Hindu; but for both, the defining principle for their imagined India was territorial, creating a nexus between the two apparently opposing schools in the concept of 'sacred geography'. The bloody partition of 1947 might have been expected to shake, even destroy, the idea that India's territorial limits were historically fixed and absolute, but for Indian nationalists, both secular and Hindu, its effect was the contrary: any territorial challenge, internal or external, came to be felt as an attempted desecration of that sacred geography.[10]

The seedbed of Indian nationalism in both its variants had lain in the anglophone elite cloned by the British rulers in their own image, as that class grew through its developmental stages – from servitor class, through challenger movement, to inheritance of power. The great debate throughout that epoch was over the historical identity of India before the establishment of the British raj. The ruling British view, most famously expressed by John Strachey in his 1888 book, *India*, was that "there is not, and never was, an India, or even a country of India, possessing, according to European ideas, any sort of unity, physical, political, social or religious". In their efforts to fix borders for India the British did not see themselves as marking out an existing nation, but the opposite – creating, and enlarging, a political entity by defining its limits. And that entity was not a nation-state but "an empire like other empires, an assemblage of diverse territories and peoples joined together by British military might, diplomacy and duplicity over many years and then maintained in being by means of the forcible application of British control over non-British peoples".[11]

As the nascent, polyglot elite grew into its challenger phase, however, finding themselves with that prime characteristic of national identity, a common language (albeit in this case a foreign one, English), so they began to conceive and present themselves as members and representatives of 'the people of India', the mass whose existence as such Strachey and his contemporary compatriots had denied. Over the years the argument which Indian nationalists evolved to substantiate their demand for political power hardened into a faith, "the fervent belief that an Indian nation had existed through time – defined by culture, common experience, custom and geography".[12] That perception served as the attitudinal prism through which the Nehru government viewed the task of settling the Sino-Indian borders. If India had 'existed through time', then it followed, in the perception of independent India's first leaders, that its "traditional and customary boundaries had long existed and had evolved naturally, since they were based on the activities of populations and cultures and on geographical features such as mountain ridges and watersheds".[13] Indeed, the "northern frontier [had] lain approximately where it now runs for nearly three thousand years".[14] A corollary was that India's " 'historical borders' were necessarily linear", which is to say precise.[15]

The broad lines of that theory may be traced in the Indian diplomatic argumentation to Beijing over the borders. But its most detailed elaboration came much later in a work of advocacy of the Indian approach disguised as scholarship, written by an Indian official who had been closely involved in his government's handling of the border dispute, T S Murty.[16] Murty argues that a frontier, and the line of exact separation within a frontier (i e, the boundary), comes into existence through natural human interaction, a 'process of historic consolidation' or 'crystallisation'; and needs for validity recognition by only one of the two states concerned. Such 'historic delimitation' obviates the need for delimitation by diplomatic process, which Murty calls 'formalisation' and belittles as a mere 'garnishing' of the real boundary-forming process by historic gestation. To him

'public announcement' of an alignment by the validating government will suffice to finalise a boundary, no 'formalisation' then being necessary.

From that ideological position adopted by the Indian government it followed that, unlike other states which found it necessary to negotiate agreement with neighbours as to the alignment of their common borders, India already possessed fixed borders with China, negotiation thus being otiose. The only necessity was for the Indian government to 'discover' the exact alignment of the country's borders with China through its own archival research, with consultation of history and mythology and taking security interests into account. Once the appropriate alignment had been decided upon it could be announced and depicted on maps. Indian posts would be set up "along the entire frontier ... especially in such places as might be considered disputed areas", as Jawaharlal Nehru was to instruct his government; and the resulting manned boundary would "not be open to discussion with anybody" [17]

Thus India: (1) would insist that all sectors of its claimed border with China were already defined; (2) as soon as possible would advance its state forces into the territory it claimed; (3) would refuse to enter into any agreement for maintaining the status quo until all territory claimed was under Indian control; (4) would at all stages refuse to submit its claimed boundary alignments to negotiation. Each of those points was in absolute contradistinction to the Chinese approach and in sum they amounted to an insistence that for India the definition and consolidation of boundaries with China would be a unilateral process.

Such a one-sided procedure is nugatory in international law:

> An international boundary cannot be fixed solely by the administrative act of one of the adjoining states. At least two parties must be involved and their joint efforts are necessary in order to effectuate an acceptable division between their territories. Therefore, if a state proceeds alone to survey and delimit its border areas, no juridical principle will apply the effects of such unilateral action to another state which, being directly interested, has not co-operated in any way in its execution or consented to accept its consequences. From the point of view of the non-participating state, the international boundary remains undefined.[18]

But so long as the border which India claimed to be pre-existing accorded to the perception held in Beijing, or was acceptable to the Chinese government, there should be no cause for conflict, although the Indian approach would rule out joint redefinition by diplomatic process. What would happen, however, if the boundary 'discovered' by the Indian government conflicted with China's understanding of the alignment of the traditional and historic frontier? And if a Chinese presence were found to be within what India claimed to be its anciently-established limits, but was asserted by Beijing as expressing China's own reading of history? Such a presence could only be regarded by India as adverse and illegitimate, and the trespassers would be asked to withdraw and expected to comply. Refusal would elevate the offence from trespass, to incursion, to aggression. Once the charge of 'aggression' was made public, politicians and press would take it up and demand armed action to repel the aggressors. Failure to respond would open the government to logically valid charges of surrender of national territory – and therefore military action against China would become an unavoidable political necessity.

Thus the package of linked policies evolved privily by Nehru and his advisers in the years immediately after India attained independence would, if consistently applied, promise to lead ineluctably to armed conflict on the Sino-Indian borders. The first overt expression of India's policy for the consolidation of its claimed border with China came in February 1951 when an Indian official party, escorted by a strong paramilitary column, marched into the Tibetan monastery centre of Tawang, proclaimed it to be Indian territory, and ousted the Tibetan administrators. In thus presenting an annexationist fait accompli to the authorities in Lhasa – as well as those recently established in Beijing – the Indian government was both continuing and modifying the policy towards the north-east frontier applied by their British predecessors.

The reassertion of Chinese authority in Tibet in the first decade of the 20th century – and its collapse in 1912 – led to an attempt by the British Indian government to replace the established and traditional limit of its administration in the north-east, which lay beneath the foothills of the Assam Himalayas, with a 'scientific frontier' that ran along the crest of the mountains, some 60 miles to the north.[19] Such a frontier projection would in effect annex some 60,000 square miles of territory which China regarded as its own, being an extension of Tibet, and which was depicted as Chinese on British official maps as well as China's. Most of that great tract was unadministered, occupied by tribal people who fiercely and effectively resisted intruders, whether from north or south; but a tapering salient of territory at its western extremity, running down to the plains from the monastery centre of Tawang, was administered, by Tibet's ecclesiastical authority.

Britain convened in Simla in 1913 a tripartite conference, including a Tibetan delegate and a representative of the Chinese central government, the ostensible purpose of which was to reform and regulate relations between Lhasa and Beijing. The foreign secretary of the Indian government, Sir Henry McMahon, used the occasion, however, to arrange secret, bilateral negotiations in Delhi in March 1914 in which the Tibetan representative was induced to accept the desired new border line. That line, which came to be named after the foreign secretary, was drawn on a map with an appropriate scale of eight miles to the inch, covering the sector from just short of Laos to Bhutan (the British then included Burma as part of their Indian empire). That map was not shown, of course, to the Chinese representative at the conference. But McMahon tricked him into initialling a different map, on a very small scale, which, while purporting to illustrate only a proposed division of Tibet into Inner and Outer zones, also incorporated McMahon's secretly-drawn alignment.

McMahon's actions at Simla exceeded his authority, and an American international lawyer and student of this history arraigns him for, among other sins, "lying at an international conference table and deliberately breaking a treaty between the United Kingdom and Russia".[20] McMahon's domineering chicanery was infructious, however. The Lhasa authorities repudiated their representative's actions; the Chinese government, suspecting what had gone on behind its representative's back, declared that any agreement reached between Britain and the Tibetan authorities would be illegitimate and null; in his report to London the Viceroy disowned McMahon's dealings with the Tibetans; and the home government tacitly expressed severe disapproval, it appears, by transferring McMahon out of India. Thus the 'McMahon Line' was stillborn [21] It was left to another imperial frontiersman serving the British government in India, a man very much in the McMahon mould, to breath life into it a quarter of a century later

In the mid-1930s Olaf Caroe, then a middling official in New Delhi, disinterred from the archives the documentation concerning McMahon's abortive border advance, and persuaded the British government to begin pretending that the McMahon Line was India's legal boundary, legitimated by the formal assent of Tibet and China – Caroe arranged a dip-

lomatic forgery to support the false assertion that the boundary had been agreed at the Simla conference.[22] Consequently in the 1940s some British maps began showing the McMahon Line as the boundary, qualified only with the wording, 'Undemarcated' (that is, still awaiting agreement on its exact alignment and marking out on the ground by joint process of the two neighbours). During the war and immediately after it the British began the task, difficult and dangerous (because of tribal hostility), of extending their administration towards their claimed border. Those forward movements immediately drew strong protests and demands for their withdrawal from the Chinese government, then Nationalist. Those protests were repeated, redirected to the incoming Indian authorities, in early 1947; and in 1949 the Nationalist government, although by then in extremis, still delivered in New Delhi a formal note again repudiating all documents emanating from the Simla Conference.

By the time India became independent in August 1947 the British had made some progress towards making the McMahon Line good on the ground as India's north-east border, in defiance of China's protests; and the successor government in New Delhi took up the task of completion.

Against that historical background the new government of independent India cannot be criticised for continuing an inherited policy, and maintaining the British claim to a boundary on the McMahon alignment, although the wisdom of attempting to sustain and use Britain's supportive falsehoods and forgery is questionable. On the other hand, Britain's policy on the limits of its imperial possessions reflected great power, often indeed supremacy; and even so, the British always showed a politic awareness that it was advisable to take full account of a neighbour's sensibilities when trying to fix borders, and that force exerted on the ground needed to be balanced by pragmatism and diplomatic finesse. It is not easy to imagine a British government adopting such a provocatively obdurate tactic as Nehru was to apply in this instance: that if the new China questioned the legitimacy of the McMahon Line, as had the old, India would simply refuse to discuss the subject.

The forceful reassertion of Chinese central authority in Tibet that began in November 1950, seen by many in India (and elsewhere) as an invasion, galvanised the Indian government into alarmed activity. (Dispatch of an Indian expeditionary force to Lhasa, in the steps of Younghusband, to pre-empt or resist the PLA, was seriously considered.)[23] The prospect of a Chinese military presence, at least potentially hostile, along what the minister responsible for its defence, Sardar Patel, recognised to be the 'undefined' northern frontier[24] added a new dimension to India's perceived threat horizons. After urgent consultations, plans were laid for the rapid extension of administrative and defence arrangements in the north. On 20 November 1950 Nehru proclaimed in the Indian parliament that the McMahon Line was India's border with Tibet in the north-east, reiterating the British falsification about its having been "fixed by the Simla Convention of 1914". He conceded that China's maps showed a contrary border line, well to the south, and had done so "for the last 30 years"; but, he went on, '[Chinese] map or no map', the McMahon Line was India's boundary, "and we will not allow anybody to come across [it]". That forthright declaration was the first public articulation of India's unilateralist approach to the problem of boundary settlement.

In annexing Tawang three months later the Nehru government exceeded its predecessors' ambitions and intention. McMahon had drawn his line to bring Tawang into India, but even in Caroe's time the government had second thoughts about that. To begin to take over the tribal tracts which China, although claiming them, had never administered, was one thing – those comprised, in imperial terms, a no-man's land; but to annex a tract which since they first contacted it the British had recognised as administered Tibetan/Chinese territory, was quite different. Therefore during the years of the second world war the British engaged Lhasa in discussions looking to the re-drawing of McMahon's alignment so as to leave Tawang, with its great monastery, to Tibet. They tried to present that proposal as a magnanimous concession, seeing it themselves as a 'sop' which might induce Lhasa to accept the rest of the McMahon alignment as the border. They failed. The Tibetan authorities would not bite.[25] Indeed upon India's achieving independence Lhasa dispatched to New Delhi a formal request that the new post-imperial government withdraw all its predecessors' intrusions into the territory between the McMahon Line and the traditional border beneath the foothills.

Lhasa vigorously protested India's seizure of Tawang, and again made clear that Tibet regarded the McMahon Line as a chimera, without validity as a boundary. From Beijing, however, came no comment, although by then the PLA had established itself in Lhasa, its advance units cannot have been far from Tawang, and the Chinese government appears to have received prompt reports of the Indian action.[26] That silence was the first indication that the new men in power in China were willing to accept McMahon's boundary alignment as he drew it, along with other distasteful bequests from the period of China's prostration. Further evidence to that effect followed, again expressed in silence – and this appeared conclusively to confirm intended acquiescence. The People's Republic might have been expected to continue and intensify the protests which its Nationalist predecessor had vigorously been issuing over the British and more recently Indian advances into NEFA; but in the event Beijing ignored the Indian government's accelerated military and administrative thrusts up to the McMahon Line. (As will be seen, the Chinese did react, however, when Indian personnel pushed northward across the Line.)

After India's incorporation of Tawang the frontier fell quiet again, while the two neighbours built up their internal communications, building roads, sending out patrols and survey teams, establishing posts – and thus moved closer to impingement. Diplomatically, the next event was the holding in 1954 of negotiations on trade and intercourse across the Tibetan sector of the Sino-Indian border, which looked among other matters to the terms of India's surrender of various rights and privileges which the British had induced Lhasa to grant, including maintenance of armed personnel within Tibet. As the Indian government prepared for those negotiations its basic policy towards border consolidation, which might be summarised as "lie low and say nothing about the borders but make good our claims", was reconsidered, but only to be confirmed. As a key participant in the discussions put it:

> The general view was that we should not allow China to take this opportunity to rake up the whole issue [of the borders]. In any case, China was not going to recognise the McMahon Line which we considered to be our northern frontier and so there could not be any negotiations on that score.[27]

Therefore "it was decided that the question of the frontier would not be allowed to be raised, as in India's view this was well settled by custom, tradition and useage. If the Chinese raised it, the Indian side would refuse to discuss it".[28] That decision was challenged within the government, at high level, but Nehru stood fast on the strategy he had chosen: that the subject of the borders should be left to China to raise, and if or when it did so, "We can plainly refuse to reopen the question and take our stand [on the position Nehru had stated in Parliament],

that the territory on this side of the McMahon Line is ours, and there is nothing to discuss' about it".[29] In the event the Chinese side in the negotiations did not bring up the question of borders either, although it did intimate that it considered that to be a subject to be discussed on another occasion.

The Agreement on Trade and Intercourse in Tibet which issued from the negotiations enshrined in its preamble the "Five Principles of Peaceful Co-existence", the first of which was "Mutual respect for each other's territorial integrity and sovereignty"; and the Indian government seized on that principle as foreclosing any future challenges from Beijing about its border claims. By that time it had completed its secret and unilateral investigations and decided upon the alignment of the borders with China. In July 1954 Nehru circulated a memorandum on the Sino-Indian borders to ministries concerned, describing the Tibet treaty as "a new starting point of our relations with China and Tibet". He went on:

> Both as flowing from our policy and as a consequence of our agreement with China, this frontier should be considered a firm and definite one, which is not open to discussion with anybody. A system of checkposts should be spread along this entire frontier. More especially, we should have checkposts in such places as might be considered disputed areas.[30]

That 'firm and definite' border appeared in new maps issued at about this time by the official cartographer, the *Survey of India*, and it was very different from what had been shown in previous maps. Those generally had reflected the actual position, as stated by the home minister, Patel, that when India became independent the Sino-Indian frontier was undefined. As noted above, the McMahon Line had begun to be marked on British maps after 1940, replacing a border alignment which had matched that shown on Chinese maps, running along the foot of the hills; but then the McMahon Line was still qualified as 'Undemarcated'. The new maps showed it as a full and final international boundary. To the mortification and concern of their rulers, Bhutan and Sikkim were shown as included within India's boundary. But it was in what became known as the western sector of the Sino-Indian border, where the state of Jammu and Kashmir marched with a corner of Sinkiang and with Tibet, that the greatest change appeared. There a new boundary line, categorical in depiction, looped up to the north-west from the Karakoram Pass to the Kuen Lun mountain range so as to include within India a tract of territory comprised for the most part of the Aksai Chin plateau.

At India's independence the situation in the western sector was unchanged since the Foreign and Political Department of the Government of India, in its official publication of record, generally short-named as *Aitchison's Treaties*, stated in 1931 that "The northern as well as the eastern boundary of the Kashmir state is undefined".[31] In the north-east the line India claimed as its boundary had at least a pseudo-diplomatic basis in McMahon's 1914 subterfuges, and a fairly precise cartographic expression.[32] But the boundary now claimed in the western sector had no foundation other than that it had been proposed and considered as a possible claim-line – and rejected – within the British Indian administration, as had a number of alternative possible boundary alignments for that sector, all markedly less advanced than the line chosen. As the outstanding Indian analyst of this history put it, "the Indian claim to Aksai Chin had no basis in treaty, usage or geography".[33] It was not until five years after the issuance of the new maps that an official was sent to London to devil up a case for the Aksai Chin claim from the archives. He managed to do so, with the aid of a critical falsification, of which his government made much use.[34]

If, as Nehru had ruled, nobody (which is to say, China) was to be allowed to question the wildly irredentist claim now cartographically advanced for Aksai Chin, then India's border policy had become wholly inimical to Nehru's often stated wish for India's close and friendly relations with China, and to that extent contradictory, even irrational.

But how solid was Nehru's often voiced aspiration for friendship with China? Much has been made of his repeated expressions of friendly and positive regard for China during this period of the 1950s, when slogans about Sino-Indian brotherhood were shouted by Indian crowds welcoming official visitors from China, and certainly he made India an open and active supporter of the People's Republic's international interests at that time. Consequently there has been readiness to accept his and the wider Indian perception and portrayal of the 1962 border war as an act of perfidy by Beijing, a treacherous betrayal by a friend. But an underside to Nehru's approach to China, one marked by suspicion, animus, and territorial acquisitiveness, has been illuminated since that time. The light was shone not by a critic but by a man whose admiration for the prime minister was unqualified, even adulatory, and who was a close and influential adviser through almost the whole of Nehru's time in office – N B Mullik, director of the Intelligence Bureau (IB), which in 1931 was given responsibility for foreign as well as domestic intelligence.

Mullik, who described himself as a Bengali-speaking Bihari (his name is Bengali and apparently he did not wish to be taken for a Bengali) served in the Indian Police Service (IPS) for more than a decade before India's independence. His first contact with Nehru, in 1934, led to his receiving a nasty snub from the then Congress leader, who of course held a low opinion of all members of the IPS, especially Indians thus acting as enforcers for the raj – and that rankled with Mullik for years.[35] But when, after independence, he joined the Intelligence Bureau, becoming director in 1950, the old slight was forgotten, and as is clear in his most revealing trilogy, *My Years With Nehru*, Mullik came to revere the prime minister, personally and as a statesman. Nehru, it is also clear, not only from Mullik's account but from the influence, even power, the IB came to exercise on those aspects of government policy which Nehru dominated, responded with full trust in Mullik's percipience and judgment.

In Mullik's account, when in 1952 he sought from Nehru guidance as to India's strategic orientation, and therefore the prime targets for the attentions of the IB, he was instructed that China must be counted as one of 'two enemies', the other being Pakistan. He was therefore told to lend all support to anti-Beijing Tibetan emigres, "to help them in every way possible and maintain their morale".[36] Mullik was one of those who had urged dispatch of an Indian expeditionary force to forestall and oppose Chinese occupation of Tibet, and he quickly built up supportive relations with the Dalai Lama's brother and other members of the Tibetan oligarchy who had fled to India upon the arrival of the PLA in Lhasa. This must have brought him into co-operative contact with the CIA, whose agents were working from about 1956, with Indian connivance at least, to foment the revolt in Tibet that broke out in 1959.[37]

According to Mullik, Nehru foresaw that conflict with China over the borders was inevitable, and played for time. Therefore he maintained his posture of friendliness, which was also partly genuine, to lull China into a sense of security while India made good its border claims. Nehru went some way towards confirming that interpretation himself, after the dispute became a public issue in India, in defending his tactics in Parliament. The government had been alive to the problem of the northern borders from 'the very first day' (presumably, of its existence), he said. It was decided not to raise the issue

with China but rather to make it clear, in maps and statements, where India placed its borders: "Why should we go about asking China [and raising] this question when we felt sure about it? ...We felt we should hold by our position and that the lapse of time and events will confirm it, and by the time, perhaps, when the challenge of it came [from China] we would be in a much stronger position to face it".[38]

Because border protection was the responsibility of the home ministry, under which the IB operated, it was in giving effect to Nehru's policy in that regard that Mullik's influence was most potent and extensive. Implementation of Nehru's directive that a system of checkposts be established right along the border, and "more especially...in such places as might be considered disputed areas", was Mullik's responsibility, one which he said he 'pursued ... with single-minded effort'.[39] His account of that project merits quotation at length:

> In setting up the checkposts all along the frontier, as we then understood its location, we often came in conflict with both the Army Headquarters and the ministry of external affairs. We were often accused of going into disputed territory or trespassing beyond our border though, except that some of our patrols did sometimes cross into Tibet or Sinkiang due to the faulty nature of the maps, we had located the checkposts within our claimed frontier. If we went too near the frontier, we would be accused of causing provocations. We did not give in and our contention was that as the responsibility for guarding the frontier had been given to us, we were free to open the posts wherever we thought they would serve us best.... Moreover, once we claimed a territory to be our own, we were free to go and open our post there, no matter whether the Chinese disputed our claims and raised protests.[40]

Mullik knew he was armoured against the army and external affairs by Nehru's unwavering support.

> We were always quite confident that finally when the dispute [within the government] was referred to the prime minister he would decide in our favour because we were only carrying out the orders specifically given by him to me.... This is what happened on more than one occasion when the army headquarters or the external affairs ministry reported against us to the prime minister. The file came back with the note that as we had already opened the post we need not withdraw from it but we should be careful to see that we did not trespass into Chinese territory.[41]

Sometimes, Mullik admitted, his patrols did encroach onto what he conceded to be Chinese territory, once 40 miles into Sinkiang; but even on that occasion, when "the External Affairs Ministry was very angry", the prime minister commented that the patrol party must have been led astray by faulty maps. "And so further trouble [for the IB] was averted."

But so difficult was the terrain for India in the western sector, so very far-flung its border claim there, that it was to be several years before Mullik could push his patrols into contact with the Chinese in that sector. He succeeded at last in October 1959, when a long-distance patrol he had specially organised to set up a new post on 'the international frontier', as Mullik called the Indian claim line, was intercepted by a Chinese force near the Kongka Pass. In the ensuing firefight the Indian patrol suffered – nine killed, with the survivors being captured. That clash brought Nehru's support for Mullik's actions under its severest strain. At a top-level meeting the IB was accused by the army and foreign office officials of acting as 'aggressors and provocateurs'. The army insisted that no further movements of Mullik's armed police should take place along the frontiers without prior military clearance, "and the prime minister had to give in to the army's demand". The result, Mullik regretfully recalls, was that "the protection of the border was thereafter handed over to the army and all operations of armed police were made subject to prior approval of the army command".[42] In a bizarre inversion of actuality, typical of the deceptions being spun by New Delhi in those days, the army's assumption of responsibility for the borders was presented as evidence of the seriousness with which the government viewed the 'Chinese threat'. In fact that it was a measure to protect China from the provocations Mullik, with Nehru's support, was bent on continuing and which, the army recognised at that time, must draw it into a conflict it could only lose.

The inhibition on forward Indian patrols into Chinese-held territory was not to last long, as it turned out. Sweeping changes in an army headquarters corrupted by political interference and favouritism, with courtier-soldiers replacing old-guard professionals,[43] meant that by the summer of 1961 the army itself had launched onto a 'forward policy' and was advancing troops into Chinese-held territory in the western sector to implement India's claims, regardless of Beijing's protests and warnings and reckless of the PLA's overwhelming superiority in weaponry, numbers and logistics. The aim of this hare-brained scheme, misbegotten by military adventurism out of Gandhian satyagraha (soul force), was somehow to extrude the Chinese from Indian-claimed Aksai Chin – to make them leave without actually forcing them out.

The rehearsal, or tuning up, for the collision for which Nehru had set the course had come in the middle sector of the frontier, as it came to be called, beginning with a mildly worded protest note from the Chinese government in July 1954 about an intrusion by an armed Indian patrol. What had happened in that sector, it appears, was that the Chinese, backing up the Tibetan position on the lie of the traditional border, had consolidated a 'scientific frontier'. That is, they claimed, and controlled, not only the mountain passes, but small trans-montaigne tracts as well. Through 1954, 1955 and 1956 there was patrol friction in the area, with continuing exchange of diplomatic protests, until discussions were opened between the two governments. Those were infructuous. An ominous tone was struck by India in a note late in 1956 in which a Chinese armed presence on the Indian side of a pass claimed by New Delhi to mark the frontier – an assertion denied by Beijing – was described as 'aggression'.[44]

The border dispute proper surfaced when China publicised the completion of a motorable road across Aksai Chin, linking Sinkiang with western Tibet. The Chinese described that notable engineering feat in an article on the achievements of their first five-year plan in the July 1958 issue of *China Pictorial*, and showed it on a map. The road construction had been noted while it was in progress by the IB and Mullik had urged establishment of army and armed police posts to monitor or impede it. But, in Mullik's account, at a meeting in January 1959 he was overruled by the army, with the support of the ministry of external affairs (MEA). The army's view, expressed by the then chief, General Thimayya, was that the road did not constitute any strategic threat to India and that the establishment of military posts in that area was beyond the army's logistical capacity and that anyway it would be folly to try to engage China militarily in this area. The reasoning of the ministry was that:

> this ... territory was useless to India. Even if the Chinese did not encroach into it, India could not make any use of it. The boundary had not been demarcated and had been shifted more than once by the British. There was an old silk route [across it] which ... the Chinese had only improved [to make their road]. It would be pointless to pick quarrels over issues in which India had no means of enforcing her claims.[45]

An Indian patrol was dispatched to check the lie of the road when spring made that possible, however – and nothing was heard

from it after the end of August. Then, on November 3, New Delhi was informed that the patrol had been detained, and its personnel deported. The Chinese asked for a guarantee that there would be no more such 'unlawful intrusions', and warned that those were inconsistent with friendly relations.[46]

The construction of the road and the arrest of the patrol demonstrated that the Aksai Chin was solidly under Chinese control and administration, and practically beyond India's purview. But the official Indian maps issued from 1954 showed the territory crossed by the road as unquestionably Indian. Now the impasse to which Indian policy had from its inception inexorably been directed was reached. Either the Indian government was going to have to resile from its absolutist and unilateral approach to border settlement, or the Chinese government would have to withdraw from what was for them a strategically vital tract, which it considered to have long been Chinese territory. So an irresistable force, or anyway an unassuageable demand, had met an immoveable object.

At about the same time as the reconnaissance patrol was dispatched to investigate the road the ministry of external affairs, in reversal of the approach it had advocated a few months previously, sent a formal complaint to Beijing – not about the road itself but about the international borders shown in the map with the *China Pictorial* article about it. Those, the note pointed out, did not coincide with the border of India as shown on India's latest maps. (The little sketch map in the magazine put China's boundaries along the Karakoram range in the west and the edge of the Brahmaputra valley in the east, as most maps issued in China had long shown them – and all now still do.) Nehru, this note of August 21, 1958 recalled, had alluded to just such cartographic contradictions in discussion with Zhou Enlai when he visited China in 1954 and had been reassured that "current Chinese maps were based on old maps" and that the People's Republic "had had no time to correct them". But the PRC had now been in existence for 'many years', and India "trust[ed] that the corrections [would] be made soon". The note concluded with an offer, which seems deliberatively offensive, to send a free copy of the latest Indian official map to guide Beijing's cartographers.[47]

In the historical context and the political circumstances of the time, that note is astonishing. Its peremptory tone would still have been out of place if addressed to the ruler of Sikkim or Bhutan, and its political implications were huge. In effect, it required China, through changes in its maps, first, to ascribe *ex post facto* legitimacy to McMahon's covert dealings with the Tibetans, thus imputing to the latter treaty-making rights and by implication sovereignty; second, to concede that the Aksai Chin tract was Indian territory, and therefore that the Chinese administration and development there amounted to 'unlawful intrusion'. And it was soon to be proved that the position taken in this note was by no means an opening bid calculated to leave plenty of leeway for diplomatic bargaining: the Indian government was advancing a non-negotiable demand.

Beijing's reply merely restated what Zhou had told Nehru: China's maps of the day were based on those authorised by the nationalist government and it would not be appropriate unilaterally to alter their depiction of boundaries. That must await surveys and the outcome of consultations with the countries concerned. In December 1958 Nehru himself joined the exchanges with a letter to Zhou Enlai, opening a personal correspondence which was to parallel formal diplomatic exchanges through the mounting conflict.

Nehru's tone was cordial, though the iron fist showed in some passages through the velvet. Referring back to the maps which had been complained about, he feigned surprise, claiming that he "had not been aware at any time previously that there was any frontier dispute between our two countries". He recalled Zhou's assurance at their meeting in 1954 about reproductions of old pre-liberation maps, but said that the "continued issue of these incorrect maps" nine years after the PRC's inauguration was 'embarrassing'. About the McMahon Line, Nehru reminded Zhou that they had discussed that sector in 1956, in the context of boundary negotiations then in progress between China and Burma, and that Zhou had assured him that China 'proposed to recognise this border with India', as it was doing in the case of Burma. The nub of Nehru's letter lay in this sentence: "There can be no question of these large parts of India [shown as within China on Chinese maps] being anything but India and there is no dispute about them".

Zhou replied promptly, in January 1959. In summary his points were: (1) The Sino-Indian boundary had never been formally delimited. That is, no treaty or agreement on the boundary had ever been concluded between the Chinese central government and a government of India. (2) "Border disputes [did] exist between China and India", and therefore it was unavoidable that there would be discrepancies between their respective maps. (3) The Aksai Chin area was China's and had "always been under Chinese jurisdiction". (4) The McMahon Line had no legitimacy as an international boundary but China was likely to accept that alignment at the appropriate time and circumstances, as it was doing in the negotiations with Burma. There, already, can be foreseen the outline of a possible settlement: China would legitimise the McMahon alignment as the boundary in India's north-east, while India waived or sharply modified its claim to Aksai Chin. But the path to that resolution could lie only through negotiations, for which, Zhou said, Beijing was now preparing.

Noting the recent friction between patrols in parts of the border, Zhou concluded with the proposal that 'as a provisional measure, the two sides temporarily maintain the status quo, that is to say, each side keep for the time being to the border areas at present under its jurisdiction and not go beyond them'. This was the measure that China saw as the essential preliminary to negotiations, which otherwise would be jeopardised or poisoned by public reactions to armed clashes in disputed areas. In Nehru's view, however, to come to such an agreement would be to acquiesce in, even condone, China's 'aggressive' occupation of Indian territory, and thus tacitly legitimise it. The alternative was to retain the option to use force, when it became available, to assert India's claims. (It was to be nearly 40 years before an Indian government would have second thoughts about Nehru's position, and accept the Chinese proposal.)

Outright rejection of Zhou's proposal by Nehru would have unwelcome consequences, however. It would amount to an implicit declaration that India would insist on advancing its forces into all territory it claimed; and while precisely that intention was central to Nehru's policy it would, if stated openly, expose a bellicosity at odds with India's pacific international posture and reputation, as well as prompting immediate defensive measures by China. Therefore in his reply in March Nehru prevaricated, introducing the casuistry that more and more was to mark the Indian diplomatic argument. He wrote:

> I agree that the position as it was before the recent disputes arose should be respected by both sides and that neither side should try to take unilateral action in exercise of what it conceives to be its right. Further, if any possession has been secured recently, the position should be rectified.

Thus Nehru, while appearing, at a first reading, to accept Zhou's proposal, in fact rejected it. His second sentence, contradictory to the first since it looked to res-

toration of what the Indian side judged to be the acceptable status quo ante rather than the maintenance of the status quo which Zhou had proposed, fore-shadowed what before long would harden into Indian insistence that China must 'vacate its aggression' by withdrawing from Aksai Chin before there could be negotiation. As Nehru put it in his next letter (26 September 1959): "No discussion [between the two governments] can be fruitful unless the posts on the Indian side of the traditional frontier now held by the Chinese forces are first evacuated by them ....". There by, in effect stipulating that China would have to reverse its position, at least suspend its claims, and evacuate the territory claimed by India before negotiations could begin, Nehru blocked any possibility of a peaceful, negotiated resolution of the dispute. In the near-40 years since then, no successor government in India has been able – or has sought – to overcome that impediment.

As had been the case in India's refusal to come to a stand-still agreement along the border, this refusal, in effect, to submit the dispute to negotiation could not be openly stated, since India was known as an insistent advocate of peaceful negotiation, without any setting of pre-conditions, in all international disputes.[48] Therefore casuistry was invoked again, and the Indian refusal to negotiate was masked in the diplomatic exchanges, which were in effect encoded with semantic obfuscation to give the impression that the refusal was China's.[49] Nehru was personally involved in the drafting of the most important of the diplomatic notes, memoranda and letters.[50]

The clash at the Kongka Pass, which caused an angry public outcry in India (much to Mullik's satisfaction),[51] brought Zhou Enlai to urge an immediate summit meeting. Nehru stalled for some months but then agreed to receive Zhou Enlai in New Delhi in April (1960), making it clear domestically that the meeting was not for 'negotiations' but only for 'talks'. (He drew that distinction explicitly, and used it to fend off the critics who suspected he intended to surrender to what he had himself presented as 'Chinese aggression'.) Zhou Enlai nevertheless came to the summit meeting optimistic because he had recently signed an agreement with Burma, resolving border problems older and far more complex than those with India, and legitimising that section of the McMahon Line which covered the Sino-Burmese border.[52]

At the summit meetings China's proposal for settlement was made explicit for the first time: "reciprocal acceptance of present actualities in both sectors and constitution of a boundary commission".[53] This meant that the Chinese were prepared to formalise the McMahon alignment if the Indians dropped the claim to the whole of Aksai Chin and negotiated a mutually acceptable boundary in the western sector. An alignment proposed by the British to China in 1899, leaving the road well inside Chinese territory but providing for a marked advance for Indian possession, would have provided a good target for Indian negotiators. But Nehru's position was adamant: no compromise, no standstill agreement, no negotiations. Only China's diplomatic surrender and a promise to withdraw from Aksai Chin would have met the Indian demands.

Steven Hoffmann, the American scholar whose linkage of India's border policy to the nature of its elite's nationalism is cited above, offers an insight into the mindset of Nehru and his advisers when they received Zhou and the Chinese team. They-

> perceived in the Chinese wish [to negotiate a boundary settlement] an attempt to denigrate the historical authenticity of the Indian nation. A true nation would not, in the Indian view, be asked to negotiate its historically evolved borders. That request or demand could come only from a neighbour who (like India's former British rulers) regarded the Indian nation as an artificial creation.[54]

Thus in Hoffmann's analysis the more the Chinese side pressed for negotiations the more affronted were the Indians at what they felt as an impugnment of their very national identity, and therefore the more determined their refusal. Hoffmann's explanation derives from years of interviews with those who were Nehru's closest advisers at that time and, bizarre as it sounds, rings true.

Diplomatic exchanges continued after the failed summit, official teams of the two sides producing detailed statements of their historical and geographical arguments. But the deadlock was now complete and the accelerating implementation of India's 'forward policy' in the summers of 1961 and 1962, with consequent confrontations and, later, gunfire clashes, brought war steadily nearer. Nehru, while (in another context, that of India's annexation of Goa) saying that his "whole soul react[ed] against the thought of war", was phlegmatic, indeed insouciant, in openly discussing the prospect of war with China. That confidence seems to have reflected the fact that his closest advisers, especially Mullik, were ready to the last to assure him that China would never use force against India, and that Beijing's increasingly heated warnings were bluster and bluff. It also expressed, it seems, what a contemporary Indian observer called his country's 'great power complex'.[55] Nehru's vision of a Sino-Indian conflict was apocalyptic, he thought of a war that in its intensity and duration would shake the world. His premise, that India and China were powers of equal strength and resolution, was to be belied by India's total and immediate collapse under the shock of China's blows.

Rationally, if the forward policy were left out of consideration, the belief that China would never attack India was well founded. Such action would, indeed, be most invidious for Beijing, and it was difficult then – as it is now – to see any possible strategic or political advantage that China could hope to draw from hostilities with India. But by the beginning of the 1960s the PRC had begun to feel seriously threatened. The friendly strategic alliance with the USSR was breaking up; the nationalist rump on Taiwan, which American influence kept in China's seat in the UN, was intensifying its armed forays against the mainland; in a programme that had begun in 1956[56] the CIA was continuing to train, arm and transport rebel groups into Tibet, and trumpeting the cause of the Dalai Lama, by then in exile in India.[57] Not surprisingly the Chinese suspected the same influence was behind the military provocations which India was mounting (and certainly Mullik maintained close contact with the CIA station-head in New Delhi.)[58] What else, they might have asked themselves, could explain an Indian policy that could yield no material benefit to India but if continued must become at the least a worrying distraction for China's defence forces? So a military response to close off the threat from India inevitably came under consideration in Beijing, and precautionary force deployments began to be made.

By October 1962 the forward policy had created great tension in the western sector. Numerous small Indian army posts had been set up in Chinese- claimed and-controlled territory, and all had been closely confronted by the PLA, always in superior force. Armed clashes had occurred, the Chinese had suffered casualties. Beijing's protests and warnings that China's forces would be forced to retaliate had become angry and explicit. Then the Indian government resolved the issue for the Chinese leadership, removing any doubt about its intentions. A note dated October 6 was read in Beijing as "finally categorically shut[ting] the door to negotiations". Then Nehru, speaking to journalists on October 12, made a public declaration that the Indian army had been ordered to 'free our territory', that is, to take the offensive to implement India's claims. Nehru's handling of the dispute had by that time

made this statement politically inescap-able for him: what else could his government do but order attack if, as he had said was the case, China had deliberately invaded Indian territory? His bravado aroused jingoist jubilation among the Indian political class and satisfaction in the west, where the statement was taken as an ultimatum, even a declaration of war[59] – but horror among the commanders in the field whose troops would have to execute the Balaclava-like orders.

Nehru's commitment referred to a confrontation which had developed on the McMahon Line – or rather, to be precise, on the Chinese side of the McMahon Line. The map on which McMahon had drawn his line was based on an elementary survey, and when in the 1950s Indian administrators reached the frontier area they concluded that in certain sections McMahon should have placed it several miles further north. Since the Chinese were carefully observing the line as McMahon had drawn it as the de facto border, calling it 'the line of actual control', it was clearly in India's interest that nothing be done to disturb the situation in that sector. With every year that passed China's observance of the McMahon Line served to strengthen India's claim. Nevertheless, as soon as they were able to do so the Indians began setting up outposts in several sectors to the north of the McMahon Line as McMahon had drawn it, maintaining that it was their right to make such unilateral 'corrections'. Since Beijing baulked at this 'nibbling at Chinese territory', as Deng Xiaoping later described it, the result was a protracted series of armed confrontations, beginning with a clash at Longju in August 1959 and continuing to the present.

The only strategically significant patch of territory claimed by India north of the line as McMahon had drawn it lay at its western extremity, where an Indian position on the highest local feature, Thagla Ridge, would give the outpost overview of a Chinese base and communications. In June 1962 the Indian army, acting on orders originating from Mullik to occupy the Ridge, established a post on the Namka Chu, a mountain stream running along its foot – the crest was beyond the troops' logistical reach. In September the Chinese reacted just as they were doing in the western sector, confronting the new Indian post with a superior containing force. The Indian government then proclaimed that it was the Chinese who had sent forces across the McMahon Line, and Nehru made his public vow to have them thrown back.

The Indian army was struggling against agonising difficulties to get even lightly armed infantry to the area – all weapons and supplies had to be man-carried over steep ridges at altitudes lethal to its unacclimatised and under-clad troops: the PLA, its heavy weapons and supplies, were transported by truck to just behind Thagla Ridge and then by mules across it. To drive the Chinese off the ridge by assault was a military impossibility, even after the Indians had managed to concentrate a brigade of infantry – indeed any Indian concentration could easily be outnumbered by the Chinese. The divisional commander whose troops would have to obey the order and launch a hopeless attack recalled his reaction to hearing Nehru's statement on the radio news:

> The statement hit me like a bludgeon. I found it hard to believe that any responsible person let alone a statesman of international repute could publicly make such an irresponsible operational pronouncement.... The military implications and the likely Chinese reaction were clear, at least to us up at the front. If Nehru had declared his intention to attack, then the Chinese were not going to wait to be attacked.[60]

On October 9 the Indian troops had made a tactical move preliminary to an assault on the ridge. That foolhardy sally was promptly driven back, but not before the Indians had inflicted heavy casualties on the Chinese. A few days later another battalion struggled down onto the river-line to reinforce the Indians, bringing their number to about 2,500. The deployment of the Indian troops was as if for attack, not defence. Thus there were no grounds for doubt in Beijing that Nehru meant what he said, and that an Indian assault on the Chinese positions was imminent.[61] Nor was there any doubt that such an assault could be repulsed, with massive losses among the attackers and minimal Chinese casualties. But Beijing must have appreciated that such a localised victory would only have worsened China's problem. The Indians' defeat would have augmented their complaints of victimisation and charges of Chinese aggression – which were being believed in the west – and determined them to fight again as soon as they were strong enough. Only a punitive blow on a far greater scale could be expected to deter India from continuing its attempts to make good its border claims by force.

Before dawn on October 20 the PLA launched a pre-emptive offensive, and the border war began.[62] The Indian troops beneath Thagla Ridge fought while their ammunition lasted, about 30 minutes, before they were overwhelmed, and the Chinese advance in the east continued until Tawang was re-occupied. The most advanced Indian 'forward policy' posts in the western sector were also wiped out. The Chinese forces then paused, and Zhou Enlai appealed personally to Nehru. He offered a ceasefire and withdrawal of the PLA to positions behind the McMahon Line, calling for India, in return, to end its forward probing and open negotiations "to seek a friendly settlement of the Sino-Indian boundary question". Nehru rejected the offer instantly. Three weeks later a second Chinese offensive took only three days to crush all Indian resistance in the disputed areas, in both the western and eastern sectors. Panicking, Nehru appealed for American military intervention in term so hysterical that the Indian ambassado delivering the message wept with humili ation.[63]

The PLA troops stopped their advanc when they reached China's claim lines Then China declared a unilateral ceasefir from November 22, and a month late withdrew its armed forces to positions 2 kilometres behind the McMahon Line.

Thus began and ended what prim minister Vajpayee described to presiden Clinton as "China's armed aggressio against India". The account and analysi above show that the border war of 196 was nothing of that kind. India created border dispute, refused to negotiate it, an then attempted to make good its claim by armed force. A military response wa imposed upon Beijing, and when it cam it was measured and appropriate. China' reactive use of force was justified, stra tegically and politically, indeed India policy had left Beijing no realistic alte native. As one Indian commentator put i "the catchphrase of [China's] 'unprovoke aggression' came to be peddled in th aftermath of the border war purely fo political reasons – it was a cold politic gimmick to win sympathy...."[64] But sinc that misrepresentation served as balm fo the deeply wounded pride of the India political class it was immediately accepte as truth, and has been a cherished delusio in India ever since. Vajpayee showed i his letter to president Clinton that th Indian government is still ready to see advantage from the old fiction.

II
Why the Dispute Is Still Unresolve

China's victory in the border war wa complete, India's defeat absolute, but a a continuation of diplomacy by other mear China's punitive expedition was onl partially, and temporarily, successful. Th Indian army's debacle led to a purge i headquarters. Only one or two of th courtier-soldiers survived in their careers:[6 the Indian army was returned to profe sional command and the political interfe

ence which had led it into the forward policy and to debacle was ended. The borders fell quiet, there were no more challenging Indian probes in the western sector or across the McMahon Line – for 25 years. But nothing changed in the government's diplomatic approach. Nehru's position was as adamant as ever and indeed now reinforced with an imagined sense of injury and betrayal as well as real humiliation. China's use of force had not accomplished conclusively and lastingly either of its two political objectives: to bring India to the negotiating table; and to show the Indians that pending such negotiations it would be futile and self-destructive to try to impose India's territorial claims on China by force.

Zhou, whose personal experience of dealing with Nehru had left him contemptuous and angry,[66] took off the gloves in terminating the prime ministerial correspondence, in April 1963. He accused Nehru of taking "a dishonest approach, which shows that India has no intention whatever to hold negotiations", and ended with a *tant pis*: "If the Indian government, owing to its internal and external political requirements, is not prepared to hold negotiations for the time being, the Chinese government is willing to wait with patience". Thirty-six years later, it is still waiting.

Beijing's approach has not changed since Zhou Enlai first expressed it at the 1960 summit meeting. One of its most explicit statements since then was given pithily in 1981 by Deng Xiaoping, when he received a member of the Indian parliament:

> China has never asked for the return of all the territory illegally incorporated into India by the old colonialists. China suggested that both countries should make concessions, China in the east sector and India in the west sector, on the basis of the actually controlled border line, so as to solve the Sino-Indian border question in a package plan.[67]

The position in which Nehru had impaled his government has made reversal, even adjustment, very difficult. His own and other politicians' rhetoric apart, during the border war parliament had passed a resolution binding the government – and its successors – to 'recover' all Indian-claimed territory occupied by China. The official maps issued so confidently in 1954 to illustrate the 'firm and definite' – and non-negotiable – Indian borders can be cited to argue that any compromise settlement with Beijing would involve ceding Indian territory. The constitution does not give power of territorial cession to the executive. Thus it can be argued that a constitutional amendment would be required before a treaty could be implemented, and in any conceivable political circumstances that would be extremely difficult to obtain. So even if any Indian government were prepared to brave a political storm by opening negotiations with Beijing with a view to settling the borders, the attempt would still meet the roadblock erected by Nehru.

Successor governments nevertheless stepped cautiously and slowly towards normalising relations with Beijing. Indira Gandhi, her father Nehru's near-successor, returned diplomatic representation to ambassadorial level in 1967. Under the Janata government in 1979 A B Vajpayee, then foreign minister, visited China, and after that visit low-level official discussions of the two governments' positions on the borders were re-opened, only to strand immediately on the basic contradiction – that what Beijing proposed to negotiate New Delhi held to be unnegotiable. Those meetings nevertheless sputtered on, and by the mid-1980s relations were on a steady and improving basis. Then in 1987 the border dispute was suddenly revived in an acute form, and turned again towards the arbitrament of force, a second round of India's China war.

As in the early 1960s, a change in army headquarters had placed in top command another soldier with a 'Napoleon complex'.[68] Earlier it had been Nehru's kinsman General Kaul, a lowly public relations officer lifted by the prime minister's favour to the lofty and too-demanding office of chief of the general staff, then corps commander charged with sweeping the PLA out of the territory India claimed. In the 1980s it was General K Sundarji, chief of army staff, another ambitious soldier and, again like Kaul, without combat experience in his record. He developed an Indian Ludendorff plan, looking to a conflict that would enable India to deploy its military superiority to render Pakistan a 'broken-backed state'. In 1986 Operation Brasstacks, the largest Indian military exercise held up to then, was mounted on the border with Pakistan – with the aim, as one analyst put it, of "creating a situation in which Pakistan would be compelled to attack".[69] Sundarji was denied the opportunity to put his plan into effect because the Pakistani government kept its head and refused to be provoked. He then turned his attention, and the army's weight, against China in the McMahon Line sector.

The situation in that eastern sector had become inflamed again by yet another outbreak of what may be called the 'Longju syndrome', after the site of the first armed clash on the borders: the Indians' insistence on a right to move into areas north of the McMahon Line wherever their appreciation of local topography suggested McMahon had drawn it too far to the south (they have never found sectors where he drew it too far north). As had been demonstrated since 1959 and crushingly in October 1962, China disallowed such unilateral adjustments and invariably confronted them. Nevertheless in 1985, when the spring thaw reopened the patrolling season for the Indians, a small detachment of the Special Services Bureau (SSB, established in 1963 as a border reconnaissance and intelligence unit) was sent forward to establish an observation post above the Sumdarong Chu (river). The site gave the post an overview of Chinese military dispositions behind Thagla Ridge; and so the new post was not only on the Chinese side of the map-marked McMahon Line, it was in an area of special significance and sensitivity since it had been the spark-point for the border war. In laying down the conditions for the PLA's unilateral withdrawal in 1962 Beijing had specified that the triangular tract of territory between the map-marked McMahon Line, the Bhutan border and Thagla Ridge was to be kept de-militarised, and reserved the right to 'strike back' if India moved into it.

The Chinese did not react immediately to the establishment of the new post, however, and it went unchallenged until the onset of winter when the SSB detachment withdrew. Investigating the vacated site, the Chinese noted that work had been commenced to make this an all-year-round post: they demolished those structures and built their own, clearing a helipad. On the SSB's return to resume the position in July 1986 they found the Chinese securely installed there. Word of that Chinese anticipation quickly leaked into the Indian press, with official spokesmen as usual portraying it as an unprovoked intrusion into Indian territory; and on August 8 the Indian government formally accused China of having deliberately sent forces across the McMahon Line. The Chinese pre-emption of the Sumdarong Chu site and denial of it to India was seized on by General Sundarji as a challenge which the army must take up, and a new exercise, Operation Falcon, was quickly organised on the basis of a regular map exercise, Operation Chequerboard, which had been scheduled for about that time. Operation Falcon was to confront China with a display of great offensive force on its border, as Brasstacks had with Pakistan.

So on the winding down of Brasstacks at the beginning of 1987 the Indian army began heavy troop deployments from west to east and south to north. Just as a beginning, three infantry divisions, although stretched and fatigued from their role in

airstacks, were moved across India into the McMahon Line sector. By April 1987 the Indian army had, in strength, taken up the positions beneath Thagla Ridge in which its battalions had been overwhelmed at the outset of the border war. The Indians established two strong points threatening the Chinese post on the Sumdarong Chu: Chinese forces were immediately deployed to confront them in two opposing posts only 7-10 metres away. The Indians made additional shallow advances across the McMahon Line at some seven widely separated points, bringing immediate Chinese responses and close-contact confrontations between the opposing troops. Thus Sundarji threw down the gauntlet.

By this time, after decades of intensive re-arming and expansion, the Indian army was very different from the weakly-armed, ill-clothed force that had been painfully mustered in 1962 to drive the PLA out of their commanding positions on Thagla Ridge and later, although in strong defensive positions, had crumbled without giving battle because of incompetent generalship. Not only were the Indian troops now well prepared and armed for warfare in this terrain, roadheads had been brought nearer the key frontier areas, and plenty of transport aircraft and combat helicopters were available to provide supply and ground-attack support. At the peak of the exercise India had deployed 12 divisions, with additional independent brigades, against the Chinese in the north-east. Ground support and fighter-bomber aircraft of the Indian Air Force (IAF) were brought into airfields in Assam and north Bengal: by one account from a reliable informant, five squadrons.

General Sundarji's calculation was that if the Chinese were drawn to respond as they had done in 1962 and used lightly-armed infantry to launch fast-moving, hard-hitting sweeps up to and around Indian positions, they could be stopped, surrounded and wiped out by superior Indian forces striking from prepared defensive bases – a tactic Sundarji called 'encirclement/annihilation'.[70] His strategy called also for limited counter-offensives into Tibet if the Chinese reacted in force, with the IAF in an infantry support role, extending, if necessary to ensure control of the air, to raids on Chinese air force bases in Tibet. Sundarji's battle scenario seems to have taken Viet Nam's successful resistance to China's invasion as exemplary: not long before he had led an Indian military delegation to Hanoi.

The Chinese did not react as they had done in 1962, however. They heavily reinforced in Tibet, inducting field forces from Chengdu and Lanzhou, with fighter-bombers and combat helicopters suited to operations at high altitudes. The leadership in Beijing was no doubt aware of the view expressed in official circles in New Delhi – to be fair, on their eccentric fringes – that India should advance its frontier to the Tsangpo River,[71] and therefore took no risks. In May, Beijing formally warned India of the serious consequences if it persisted in 'aggression'. There were unconfirmed reports at the time that the Indian army planned and prepared a divisional attack to clear the Chinese out of the Sumdurong Chu area; but twice, according to those reports, last-minute orders called off the attack.[72] Such an action would undoubtedly have re-ignited a full scale border war, perhaps something more; but in the absence of anything but pinpricks Beijing declined to be provoked into retaliation.

The Indian government's presentation of the confrontation as another consequence of China's aggressive encroachments onto indisputably Indian territory drowned out Beijing's more truthful account, as had happened in the run-up to the border war. But considering the explosive potential of this confrontation surprisingly little attention was publicly paid to it internationally.[73] Satellite observation gave Washington a grandstand view of everything that was happening, however, and the administration watched developments closely, from about March 1987. It appears that the Americans brought up the subject with the vice-chairman of the Chinese military commission, General Yang Shangkun, during his visit to the US in April, evoking the response that although China wanted a peaceful settlement it would have to react if India kept up its aggressive probings along the frontier. That reminded Washinton's officials of Deng Xiaoping's vehement criticism of India during the Beijing visit of Caspar Weinberger, then defence secretary, in the previous October when, according to the well-informed Washington correspondent of the *Far Eastern Economic Review*, Deng had "accused India of nibbling at Chinese territory and said that China would have to 'teach India a lesson' if this practice did not stop". When secretary of state George Schultz went to Beijing in March 1987 Deng repeated that warning about the potential consequences of India's actions, and advised the administration to take into account the anxiety caused among India's neighbours by American plans to provide India with high-technology defence equipment.[74]

The Americans did not like any of that at all. Long gone were those jubilant days when Washington's highest hopes (and deepest plans?) were fulfilled in India's great falling-out with China. Now such a conflict would be contrary to all the USA's political and strategic interests, and it can safely be assumed that the Indian prime minister Rajiv Gandhi was so informed. From Moscow Gorbachev had before this made it clear that the USSR wished to see good relations restored between New Delhi and Beijing, having himself taken the simple – but portentous – step needed to begin the resolution of the equally embittered and apparently intractable Sino-Soviet border dispute.

The confrontation eased with remarkable speed at the end of the summer of 1987, that anti-climax presumably reflecting a belated assertion of authority by the Indian prime minister or cabinet, in response to American warnings. New Delhi toned down its statements; and then extended an olive branch by seeking an invitation for prime minister Rajiv Gandhi to visit Beijing.

Flag meetings between local commanders of the opposing forces along the McMahon Line were arranged, leading to disengagement in some areas. The eyeball-to-eyeball confrontation of the four posts in the Thagla triangle continued however. Throughout the eastern sector the Indian army remained deployed in force in forward positions, giving its troops so another general of the Sundarji school was to opine in 1995, "moral ascendancy over the Chinese for the first time since their humiliation on these very mountains in 1962".[75] General Sundarji's tenure ended not long after this and he retired maintaining that the challenge he had mounted, and Beijing's passive response to it, had restored the morale the Indian army had lost in 1962, 'putting its tail up again'.[76]

Rajiv Gandhi's visit to Beijing in December 1988 did not lead to any breakthrough but the ongoing discussions on the border were raised to a higher level. Two years later prime minister Li Peng returned Rajiv Gandhi's visit. While again there was little to show from that summit meeting so far as the border dispute was concerned, behind the scenes progress was being made because the Indian approach had changed after Gandhi's visit, on the official level if not yet politically. One factor in that change was probably the aftermath of Sundarji's brinkmanship. The deployment of perhaps 60,000 troops in remote locations and extremely arduous conditions along the border (some estimates put the number at double that) put a heavy strain on the defence budget and was destructive to troop morale. But unilateral withdrawal of the bulk of the forces deployed on the China borders, even their significant thinning out, would

inevitably be assailed as retreat and surrender by the politicians, on the government as well as opposition side. If India's strained and distorted military posture was to be corrected it would have to be done under the cover of an agreement with China providing for mutuality.

Acceptance of Beijing's 40-year-old standing offer to open negotiations aimed at delimiting the boundaries and then jointly demarcating them continued to be unthinkable in New Delhi. But if Nehru's refusal to agree a stand-still on the borders could quietly be circumvented, some officials appear to have reasoned, the army's predicament could be resolved; and the line of actual control on the borders, if left undisturbed for decades or generations, might ultimately come in India to be considered negotiable. It was recognised however that an attempt to reach an agreement with Beijing that would allow military disengagement carried high domestic political risks, and so had to be approached warily and tentatively. So first the MEA sent up a trial balloon.

In August/September 1991 the Chinese vice-foreign minister, Qi Huaiyuan, visited New Delhi and held talks with officials and then with the prime minister, V P Singh. After Qi's departure Indian officials tipped off diplomatic correspondents that the meetings had produced a break-through – an agreement by which both sides would maintain the status quo along the Sino-Indian borders. The leak was displayed on the elite's notice-board, the main English-language newspapers, on September 2.[77] The implication such an agreement would carry in Nehru's terms, effective waiving of India's claim to Aksai Chin, was not recalled: the news was received calmly by politicians and press, even with satisfaction. But in fact the claim that an agreement to maintain the status quo had been reached was false. All that had been agreed in the talks were measures to facilitate communication between the two confronting forces on the border.[78] But that the trial balloon attracted no hostile fire must have encouraged the Indian officials who had floated it to press on, to try to enable the army to disengage, and to take a first step on the long road towards a boundary settlement.

Those efforts gathered strength when P V Narasimha Rao, a former foreign minister, became prime minister of a Congress government: he may have felt more freedom of movement than his immediate predecessors because the Congress Party had in 1988 resolved that India should seek a settlement with China based on "mutual interest" and "acceptable to the peoples of both countries".[79] Furthermore, J N Dixit, a widely experienced and activist diplomat, became foreign secretary and gave focus and fresh impetus to the feelers the MEA had been putting out to Beijing. By June 1993 a draft had been drawn up with the Chinese side. The prime minister approved it as the basis for final discussions to be held in Beijing during a summit visit scheduled for September; but in the interim he and Dixit held a series of meetings with political leaders in which they explained the reasons behind the government's approach, and argued that an agreement would be in the national interest. Approval was obtained, even from opposition parties – and the insistence that there be no leaks during that process was respected for once.[80] Consequently there was public surprise when, at the end of the meetings in Beijing, it was announced that an agreement had been signed "on the maintenance of peace and tranquillity along the line of actual control in the India-China border areas".

The agreement, on three pages and with only nine articles, is a model text, concise and clear. No-one familiar with the course of the Sino-Indian dispute could read it without reflecting how much conflict and destruction would have been avoided if in 1959 Nehru's government had agreed to Zhou Enlai's urging of just such a stand-still agreement. For the Indian side the essential passage, one that could have liberated Nehru too, is the caveat that "references to the line of actual control... do not prejudice [the two sides'] respective positions on the boundary question".[81]

In summary, the agreement provides that:

– Neither side shall use or threaten force.
– Both sides shall strictly respect and observe the line of actual control (LAC).
– Force levels on the LAC shall be reduced to "a minimum level compatible with... friendly and good neighbourly relations...."
– The parties shall work out, in a reinforced joint working group, how to achieve those ends.

Narasimha Rao's careful preparation of the political ground bore fruit, and there was no outcry in India against the agreement. That in effect it demolished one of the twin pillars of Nehru's border policy went unremarked.

The agreement, which like that of 1954 opened with an invocation of the 'Five Principles' of peaceful coexistence, looked to drawing the dangerous friction along the border out of the dispute and opening the way to a Sino-Indian detente, enabling incidentally a strategic re-deployment by the Indian army. But the rub lay in its implementation, which had to begin with agreement on the exact alignment of the LAC. Insistence by the Indian side on retention of the petty and strategically meaningless territorial acquisitions made during Sundarji's adventurist exercise meant that that became a vexed and protracted process, still continuing.

It was understood by both sides in the 1993 summit negotiations which clinched the agreement that the first task thereafter must be to disengage the dangerously proximate four posts near the Sumdurong Chu. The opening Chinese position on that issue was that the Indians should withdraw first (thus making the Chinese posts, reactive in origin, superfluous, and allowing their withdrawal). Beijing's argument was that all the posts were clearly north of McMahon's line, and therefore outside disputed territory, in China proper. But to the Indian side there was no such thing as 'disputed territory', what India claimed to be Indian, was Indian; and therefore there could be no question of the Indian forces initiating the disengagement from the four Sumdurong Chu posts. The Chinese must withdraw first, thus conceding that the territory concerned was Indian. At a working group meeting in New Delhi in August 1995 a compromise was agreed – for mutual, simultaneous withdrawals.[82]

The prompt announcement of that agreement, hailed by the Indian foreign secretary, by now Salman Haider, as a 'historic step', was received by no means as calmly as on previous occasions. Words and good intentions were one thing in Indian political opinion, withdrawal from even a patch of territory quite another. The agreement and the subsequent withdrawal of the two Indian outposts near Sumdurong Chu was strongly criticised by politicians and journalists. Typical, though among the mildest, was the complaint by a former foreign secretary, A P Venkateswaran, who saw in the agreement an instance of India "buckling under and conceding an advantage without ensuring a quid pro quo...."[83] There have been no subsequent significant disengagements from advanced positions, although there have been reports of substantial Indian troop movements away from the China border and towards Pakistan.

In December 1996 a further agreement was signed, again in New Delhi, on "confidence-building measures in the military field" along the LAC. In this the two sides bound themselves not to attack, and to take measures to reduce or limit their military forces in the border areas. Limits were set on the scale and location of military exercises, and provision made for swift communication. Self-restraint was called for in the case of confrontations due to differences on the location of the LAC, and the process of clarification and con-

firmation of that was to be speeded up. The regular meetings to that end continue, but they have been deflected away from the original aim of a progressive strategic disengagement, without prejudice to basic border claims, back towards the nub of the dispute – which territory belongs to which side?

So it is that, as prime minister Vajpayee wrote in justifying his government's nuclear tests to President Clinton, the Sino-Indian border dispute remains unresolved. Indeed it is as far from settlement, and even from negotiation, as ever. The recent public designation of China as India's primary strategic enemy by ministers of the Indian government indicates that the intention of the Narasimha Rao administration to achieve pacification of the borders along the line of actual control does not sit with the approach of the ruling BJP party, and suggests that while it remains in power renewed confrontations may be expected on the border. So reconsideration of the continuing Sino-Indian border dispute confirms, first, that it was not only entirely avoidable but was created through irrational policy-making on the part of the Indian government; second, that the failure to resolve it before the border war and in the decades since is the responsibility of India; third, that it was India's policy which transposed a diplomaticaly deadlocked dispute to the field of war – and, if continued, might do so again.

Seen in historical perspective the border war looks diminished, even trivial. But the conflict had far-reaching and malign consequences not only for India and China but also for the international community. How differently world politics would have developed if Nehru had shown the wisdom and political courage of U Nu of Burma and, like him, had negotiated a mutually satisfactory boundary settlement with Beijing and sealed it, about 1959, with a treaty of friendship and non-aggression. China would then have been spared the odium the conflict and Indian frame-up brought, and instead its international reputation would have been greatly enhanced. Beijing's assumption of China's UN seat would probably have been brought forward by years. India would not have embarked on the intensive re-arming which led Pakistan to venture the 1965 war. Sino-American relations might well have mended sooner, with likely effect on Washington's approach to Vietnam. And of course one excuse for India's nuclear tests would not have existed – but then that is doubly bogus, the Hindu nationalist party had been committed to India's acquiring nuclear weapons since soon after independence.

Notes

1 Prime Minister A B Vajpayee's letter to president Clinton, *New York Times*, May 13, 1998.

2 The definition and the argument here draw on Ainslie T Embree's suggestive paper, 'Frontiers into Boundaries: The Evolution of the Modern State' in *Imagining India: Essays on Indian History* (Oxford University Press, Delhi, 1989).

3 *Documents on International Affairs 1955*, (OUP, London, 1958), p 423.

4 If this statement is read in hindsight knowledge of what had been happening on and about the Sino-Indian frontier over the five years before Zhou made it, it seems logical to infer that he had in mind the Indian approach, by then clearly demonstrated by movement of forces, public statements and new cartographic claims, as the counter-model to what China intended.

5 See the writer's papers in *China Quarterly* (October-December 1973), *Pacific Community* (Vol 1, No 1), *Modern China* (Vol 1, No 1, January 1975), *Foreign Affairs*, (Vol 57, No 1, Fall, 1958), *International Affairs* (Vol 47, No 1, January 1971).

6 Text in *World Affairs* (New Delhi), Vol 2, No 1, January-March 1998, p 139.

7 J R V Prescott, *Map of Mainland Asia by Treaty* (Melbourne, University Press, 1975), chapters 12, 13, 14.

8 A summary of those attempts is in the writer's *India's China War* (Jonathan Cape, London, 1970). For full accounts see the series of historical studies by Alastair Lamb, notably *The McMahon Line* in two volumes (Routledge and Keegan Paul, London, 1996) and *Tibet, China and India 1914-1950* (Roxford Books, Hertingfordbury, Herts, 1989).

9 Steven A Hoffmann was the first student of the Sino-Indian dispute to recognise how important Indian nationalism was in the evolution and implementation of New Delhi's policy. See his *India and the China Crisis* (University of California Press, 1990), passim.

10 Ashutosh Varshney, 'Contested Meanings: India's National Identity, Hindu Nationalism and the Politics of Anxiety', *Daedalus* 122, No 3 (1993).

11 Alastair Lamb, *Incomplete Partition: The Genesis of the Kashmir Dispute 1947-1948* (Roxford Books, Hertingfordbury, 1997), p 2.

12 Hoffmann, op cit, p 25

13 Hoffmann, op cit, p 25.

14 The Indian government's note on the 'Historical Background of the Himalayan Frontier of India', White Paper II, p 125.

15 Hoffmann, op cit, p 25.

16 *Frontiers: A Changing Concept* (Palit and Palit, New Delhi, 1978). It was Murty, then an officer in the Indian Frontier Service, whose on-the-ground investigations in the late 1950s convinced him that the boundary in the eastern sector should lie on the crest of Thagla Ridge rather than where McMahon had drawn it, several miles to the south. He later became a member of the team of Indian officials which produced a report on the historical evolution of the borders after the failed Nehru/Zhou summit.

17 From Nehru's memorandum on the northern borders, circulated to ministries concerned in July 1954. It was secret and has not been officially published, but it was shown to the Indian writer D R Mankekar, who quotes it indirectly in his book, *Guilty Men of 1962* (Tulsi Shah Enterprises, Bombay, 1968), p 128, and Mankekar shared his transcription of the original with the present writer, who first published it in India's China War.

18 A O Cukwurah, *The Settlement of Boundary Disputes in International Law* (Manchester University Press, 1967), p 159.

19 Lord Curzon defined a scientific frontier as one 'which unites natural and strategical strength, and by placing both the entrance and the exit of the passes in the hands of the defending Power, compels the enemy to conquer the approach before he can use the passage'. Curzon, 'Frontiers' in *Oxford Lectures on History, 1904-1923* (Books for Libraries Press, Freeport, New York, 1924), p 9.

20 Rubin, Alfred P, book review (of Alastair Lamb's, *The McMahon Line*) in the American Journal of International Law, Vol 61, 1967, p 827.

21 The history of the McMahon Line is documented and quite clear. It is given in summary in this writer's *India's China War*, but most fully in Alastair Lamb's two-volume study (*The McMahon Line: A Study in the Relations between India China and Tibet, 1904 to 1914*), extended in his further account, *Tibet, China and India 1914-1950: A History of Imperial Diplomacy* (Roxford Books, Hertingfordbury, Hertforshire, 1989); and there are important further insights in Karunakar Gupta's brave and distinguished book, *The Hidden History of the Sino-Indian Frontier* (Minerva Associates, Calcutta, 1974).

22 K Gupta, op cit, p ix and passim; Alastair Lamb, *Tibet, China and India 1914-1950*, Chapter XII. The forgery consisted of a doctored 1937 reissue of the 1929 edition of Aitchison's Treaties, the Indian government's official record, which bore the original date and purported to be the original version. It was first exposed in a paper of the Harvard Center for International Affairs (April 1963) by Sir John Addis, a British diplomat. Caroe's unprincipled commitment to the Indian side of the dispute was demonstrated when in an article in the Manchester Guardian of February 13, 1960 he cited as evidence in its support the forgery he had himself arranged.

23 B N Mullik, *My Years With Nehru: The Chinese Betrayal* (Allied Publishers, New Delhi, 1971), p 80.

24 This is in Sardar Patel's letter on Sino-Indian relations to Nehru, November 7, 1950, which is widely quoted. The reference here is to Mullik, op cit, p 118.

25 See Lamb, 1989, Chapter XIII.

26 An eye-witness account of the arrival of the Indian force in Tawang was published later, *Xinhua*, (New China News Agency), September 16, 1959.

27 Mullik, op cit, pp 155/56.

28 Mullik, op cit, p 150.

29 This statement of Nehru's thinking was articulated by K M Panikkar in a letter to Sir G S Bajpai, who had urged the government to be open with China about its claims in the north-east See the writer's *India's China War*, pp 76/77.

30 This memorandum, never made public, was shown to the Indian journalist D R Mankekar, who quoted it in his book, *Guilty Men of 1962* (Tulsi Shah Enterprises, Bombay, 1962). Mankekar shared his transcription of the original with the present writer.

31 C U Aitchison, (ed). *Collection of Engagements, Treaties and Sanads, Etc. 1931*, Vol XII, Part I, p 5.

32 If transposed to the ground McMahon's line would be about 400 metres wide, sufficient definition for a de facto boundary provided both sides wished to avoid clashes.

33 Karunakar Gupta, *The Hidden History of the Sino-Indian Frontier* (Minerva Associates, Calcutta, 1974), p 52

34 The official was S Gopal, at the time head of the foreign ministry's historical division, later hagiographer of Jawaharlal Nehru. For details of the falsification and its utilisation see Gupta, op cit, p 34.

35 B N Mullik, *My Years With Nehru, 1948-1964* (Allied Publishers, New Delhi, 1972), Part I.

36 Mullik, op cit, pp 84-85.

37 A Tom Grunfeld, *The Making of Modern Tibet* (M E Sharpe, New York, 1987), chapter 8.

38 Maxwell, 'China and India: The Un-Negotiated Dispute', *China Quarterly*, July-September 1970, p 51.

39 Mullik, op cit, p 190

40 Mullik, op cit, p 193

41 Ibid.

42 Mullik, pp 242-44.

43 Krishna Menon, defence minister, was largely to blame for this but Nehru also bore heavy responsibility, notably for the steady patronage which enabled his kinsman B M Kaul to rise in rank far beyond his abilities.

44 'Aggression' by a neighbour affords the basis upon which a state may exercise the right of self-defence – but not 'where the sovereignty over territory a state claims to protect is disputed, as will surely be the position in a boundary dispute ....' A O Cukwarah, *The Settlement of Boundary Disputes in International Law*, p 7.

45 Mullik, op cit, pp 204-05.

46 The writer has given fully detailed and documented accounts of this and subsequent events in India's China Wwar, drawing largely on the diplomatic correspondence published by India in a series of White Papers. Unless otherwise indicated those are the source for quotations used here.

47 The diplomatic exchanges between New Delhi and Beijing were published contemporaneously by the Indian government and regularly collected into a series of White Papers, and quotations from the notes and prime ministreial letters are from those unless otherwise stated. Exact citations are not given, the dates indicated being sufficient references.

48 After the border war, in a concluding letter, Zhou Enlai asked Nehru: 'In the past you always advised other countries to settle disputes peacefully through negotiations without setting any preconditions, why has the Indian government taken a diametrically opposite attitude towards the Sino-Indian boundary question?' White Paper, No IX, p 13.

49 Maxwell, 'China and India: The Un-Negotiated Dispute'. *The China Quarterly*, July-September 1970.

50 Hoffmann, op cit, p 39.

51 Mullik dedicated his volume, *The Chinese Betrayal*, to the memory of the Indian casualties at the Kongka Pass whose 'sacrifice made the country aware of the true nature of Communist China'.

52 U Nu had from the beginning accepted that the Sino-Burmese border was undefined, and could be established only through negotiations. He resisted popular demands that his government take a defiant and intransigent approach, and as a result Burma emerged from the negotiations with a boundary very close to what it had sought, and a treaty of peace and friendship with China. For a full description of the intricacies of the Sino-Burmese border problem and settlement, see Dorothy Woodman, *The Making of Burma* (The Cresset Press, London, 1962), Part Five, 'Frontier Issues'.

53 *India's China War*, p 159.

54 Hoffmann, op cit, p 256.

55 A D Gorwala, quoted by Hoffmann, op cit, p 50.

56 Hoffmann, op cit, p 38.

57 *International Herald Tribune*, September 16, 1998.

58 J K Galbraith (American ambassador at the time) to the writer, in Cambridge, Massachusetts, winter 1993-94: quoted with permission. The links between Mullik and the CIA may have gone further than New Delhi, he appears to have been a frequent visitor to Washington.

59 *The New York Herald Tribune* ran an approving editorial headed 'Nehru Declares War on China'. In the United State and Britain the developing Sino-Indian conflict was watched with *schadenfreude*.

60 Major-General Niranjan Prasad (Ret'd), *The Fall of Towang* (Palit and Palit), New Delhi, 1981, p 69.

61 Details are given in two admirable accounts of how Indian troops bravely tried to execute the impossible orders that came down the line of command from the political leadership through the corrupted levels of Army HQ, Western Command, and IV Corps, to the divisional and brigade commanders whose duty it would be to launch the attack: Brigadier John P Dalvi's, *Himalayan Blunder: The Curtain-Raiser to the Sino-Indian Border War of 1962* (Thacker and Co, Bombay, 1969) and Major-General Naranjan Prasad's, *The Fall of Tawang* (Palit and Palit, New Delhi, 1981).

62 Beijing falsely charged that Indian forces had that day attacked in the Thagla Ridge area and the western sector, and that the Chinese had counter-attacked. The truth, that Chinese forces had pre-empted the Indian attack which Nehru had heralded to the world, would have served China better.

63 B K Nehru, *Nice Guys Finish Second* (Viking, New Delhi, 1997).

64 R C Ayer, 'The Sino-Indian Dispute', *Frontier*, Calcutta, November 21, 1970, p 12.

65 Notably the then brigadier and director of military operations D K Palit, who is one of the quartet of officers blamed for the Indian debacle in the army's official Report (still unreleased), but who rose to be major-general. Naturally his own account gives no hint of that complicity: *War in High Himalaya: The Indian Army in Crisis, 1962* (Hurst and Co, London, 1991).

66 Zhou still harboured, and expressed, those feelings when the writer discussed the Sino-Indian conflict with him in Beijing in 1971.

67 Quoted by Karunakar Gupta in 'Sino-Indian Relations: Getting the Facts Straight', *The Statesman* (New Delhi) May 11, 1981.

68 The diagnosis was made in conversation with the writer by a senior Indian official who knew the General well.

69 Ravi Rikhye, *The War That Never Was: The Story of India's Strategic Failures* (Chanakya Publications, Delhi, 1988), p 35.

70 Interview with General Sundarji at Harvard in November 1993.

71 Mullik, op cit, p 130, quoting, with approval, the view of Ram Manohar Lohia, a prominent parliament member at the time, 'that we should extend our frontier to the Brahmaputra (or the Tsangpo) River in Tibet'. It was only thus, Mullik argued, that "the Indian troops can meet the Chinese on more equal terms so far as physical condition and acclimatisation are concerned".

72 Ravi Rikhye, *Times of India*, April 16, 1947.

73 The writer's article, 'Towards India's Second China War?' in South (London, May 1987) is an exception. He had been alerted to the scale and seriousness of the Indian challenge by informants in official Washington.

74 Nayan Chanda, *Far Eastern Economic Review*, June 4, 1987, pp 42-44.

75 General Ashok K Mehta, 'Why Are We Quitting Our Territory?', *Hindustan Times* September 13, 1995.

76 Sundarji to the writer, Harvard, 1993.

77 *The Hindu, The Times of India, The Statesman*

78 This was categorically affirmed to the writer a year later by a member of the Chinese side in the New Delhi talks, and later confirmed in discussions with officials in the foreign ministry in Beijing. It was emphasised that the status quo as of that time was in fact totally unacceptable to China, containing as it did close-proximity confrontations with Indian troops north of the McMahon Line: disengagement accomplished by Indian withdrawals would have to precede an agreement to maintain the status quo Proof that this had been a trial balloon, that the 1961 reports were deliberate falsifications, came in 1993 when an agreement to maintain the status quo was really negotiated, and expressed in a treaty.

79 Surjit Mansingh, 'Sino-Indian Relations', *Asian Survey*, Vol XXXIV, No 3, March 1994.

80 Interview with J N Dixit at Hull University, March 8, 1995 There was a sticking point in the Chinese wish for inclusion of wording that signalled Beijing's refusal to recognise India's 1975 annexation of Sikkim, and that was in the draft when Rao went to Beijing in September 1993. The Indians insisted on deletion, and the Chinese gave way at the last moment.

81 Quotations from a copy of the text obtained from the Indian ministry of external affairs.

82 This background draws on discussions in the foreign ministry in Beijing in October 1996 and later discussions with Indian officials involved.

83 *The Pioneer* (New Delhi) September 3, 1995.

Real Consumption Levels and Public Distribution System in India

Raghbendra Jha
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The policy of allocation of foodgrains under the Public Distribution System (PDS) has been very ad hoc in India with allocation being fixed on a 'historical basis'. This paper uses four sets of pooled equations for predicting stable levels of per capita consumption of rice and wheat in physical terms in rural and urban India. Foodgrain demand and the own-price, cross price and income elasticities of demand are estimated for all states. A formula that is based on the concept of subsidising real consumption through PDS is proposed.

I
Introduction

THE policy of allocation under the public distribution system (henceforth PDS) in India has been the subject of intense debate among economists as well as in policy circles. For instance, Parikh (1994) emphasised the implicit subsidy through PDS. So far, the principle of allocation has been somewhat ad hoc. It has been done on some 'historical basis' and is incremented, subject to availability, as per demands from states. The revamped PDS, that has been targeted toward the poor, is based on the notion of providing some quantity of cereals so as to provide at least a part of the minimum calorific requirement (20 kg/head/mensem). This forms the conceptual basis for the PDS. In this sense, the role of PDS is really one of subsidising real consumption. In the present paper we evaluate the current policy of allocation on the basis of this notion of providing a real consumption subsidy.

State Level Cereal Demand: Rural and Urban

The National Sample Survey (henceforth NSS) 45th Round (July 1989-June 1990), 47th Round (July 1991-December 1991) and 48th Round (January 1992-December 1992) contain data on average monthly per capita expenditure (weighted average that accounts for the distribution of expenditure amongst different MPCE classes), quantity and value of rice and wheat consumed per person in 30 days. We first estimated the own price elasticity of demand, the cross elasticity and the income elasticity non-parametrically. However, the data points were very few (three) so that the results were inefficient. Hence, we pooled the data and used appropriate dummies to capture state level differences.

NSS give data for 15 states and three regions that combine smaller states and union territories. Thus, the sample size is 18x3. The implicit price is obtained by dividing the value of expenditure by the quantity of rice or wheat purchased as the case may be. The average monthly per capita expenditure (MPCE) is deflated by the consumer price index (CPI) and taken to be an indicator of real income.

II
The Model

The demand model used is a double-log function so that the estimation of elasticities becomes straightforward.

Table 1: Ratio of Actual Levels of Consumption to Predicted Levels

State	Urban Rice	Urban Wheat	Rural Rice	Rural Wheat
Andhra Pradesh				
1990	.942901	1 02834	1.05107	1.06210
1991	1.03408	.945637	.925379	.986149
1992	1.02561	1.02834	1.02812	954754
Assam				
1990	1.05893	.977547	1.03004	.834275
1991	.998471	1.04646	.973630	1.11431
1992	.945795	977546	.997135	1.07569
Bihar				
1990	.974420	.971906	.949811	.950054
1991	.960797	1.05865	1.03549	.976398
1992	1.06812	.971908	1.01676	1.07802
Gujarat				
1990	924869	1.04698	.967438	.695494
1991	.971262	1.02255	1.06845	.760171
1992	1.11323	.934063	.967439	.753291
Haryana				
1990	.974459	1.00054	.967767	1.28893
1991	1.05311	991070	1.06772	1.42805
1992	.974457	1 00846	.967766	1.23419
Karnataka				
1990	.984333	1.03016	1.02375	.837542
1991	1.01150	.942314	.943506	1.12240
1992	1.00437	1.03015	1.03529	1.06377
Kerala				
1990	1.04016	1 03108	1.01666	.857468
1991	.929573	.940622	.967486	1.07264
1992	1.03423	1.03108	1.01666	1.08724
Madhya Pradesh				
1990	.999228	1.02280	.964852	.904532
1991	.978452	.945979	1.07418	.971916
1992	1.02281	1.03354	.964852	1.13749
Maharashtra				
1990	1.05798	.992515	.987120	.923531
1991	.951487	1.00459	1.02627	1.02409
1992	.993387	1.00294	.987118	1.05732
Orissa				
1990	.983694	.999046	1.04087	.961591
1991	1.03343	1.02648	.923012	1.08148
1992	.983695	.975134	1.04087	.961591
Punjab				
1990	1.09482	.993625	.992210	.795706
1991	.915945	1.04293	1.00057	.969423
1992	.997221	.964985	1.00727	1.29638
Rajasthan				
1990	953958	.973456	.991628	1.05593
1991	1.09886	1.00253	1.01695	.896865
1992	.953958	1 02467	.991631	1.05593
Tamil Nadu				
1990	1.09100	1.00407	1.07961	.877765
1991	972043	.991910	.926004	1.24578
1992	942950	1.00407	1.00028	.914495
Uttar Pradesh				
1990	1.01485	.961548	1.01600	.950297
1991	1.01119	.994402	.968747	1.02142
1992	.974464	1.04581	1.01600	1 03023
West Bengal				
1990	1.02677	1.04988	.996916	1.06356
1991	1.00681	.978828	1.00722	1.03222
1992	.985780	.977759	1.01945	.879013
North Eastern[1]				
1990	1.00756	1.04487	.973882	1.10213
1991	.998467	.915964	.960169	1.00114
1992	.994020	1.04487	1.06941	.906302
North Western[2]				
1990	1.06062	.922578	1.02571	.953138
1991	.926846	1.11089	.950490	1.10075
1992	1.01726	.975720	1.02571	.953139
Southern[3]				
1990	952417	.989558	1.07044	.890141
1991	.980364	1.02121	.938158	1.13748
1992	1.07099	.989559	.995775	.987637

Notes: 1 Arunachal, Manipur, Meghalaya Mizoram, Nagaland, Sikkim and Tripura.
2 Jammu and Kashmir, Himachal Pradesh, Chandigarh and Delhi.
3 Andaman and Nicobar, Dadra and Nagar Haveli, Goa, Lakshdweep, Daman and Diu and Pondicherry.

$$\text{Log } Q^U_X = b_1\text{Log}P_X + b_2\text{Log}P_Y + b_3\text{Log}I + V_1D_C\text{Log}P_X + V_2D_C\text{Log}P_Y + V_3D_C\text{Log}I + wT + \text{state level intercept and trend dummies} + \varepsilon_t \quad ...(1)$$

where

Q^U_X = per capita consumption of X (rice/ wheat) in a month,

A_0 = minimum consumption level,

b_1 = partial own price elasticity,

b_2 = partial cross elasticity (wrt substitute cereal Y),

b_3 = partial income elasticity (wrt (I) money income),

D_C = dummy for major consuming states of the cereal,

V_1 = difference in B_1 for major consuming states (compared to the national average),

V_2 = difference in B_2 for major consuming states (compared to national average),

V_3 = difference in B_3 for major consuming states (compared to national average),

w = growth in minimum consumption level of rice or wheat,

T = time trend, ε_t = error term.

and

$$Q^N_X = (\text{Anti }(\text{Log } Q_X)^*P^R + \text{Anti}(\text{Log } Q_X)^*P^U)^*12 \quad (2)$$

U = (superscript) urban,

V = (superscript) rural,

N = (superscript) national and

P = population.

The predicted value of Log Q can be obtained from (1). Its antilog gives the estimate of per capita per mensem demand for the particular cereal, rice or wheat, which when multiplied by either rural or urban population of India, gives the demand for the particular region. Equation (2) gives the total demand at the national level.

Consumption in each state can be obtained by constructing individual equations from the aggregate equation since the difference in intercept as well as the difference in slope for major consuming states are known. Four equations, pooling all states, were estimated: one each for each cereal and one each for each sector – rural and urban.

III
Stable Levels of Consumption

To return to the theme of state level estimates, it would be appropriate to recapitulate the key issues. At the state level, NSS data reflect the monthly per capita expenditure on cereals, amongst other things. We have used this rich source to estimate the true levels of consumption in different states. The methodology is to estimate demand equations of the type given by (1).

Table 2.1: Equation for Cereal Demand at State Level (Urban Rice)

Dependent variable log (Qd)

RBAR**2 .99525534 Durbin-Watson 1.89635936

No	LABEL	LAG	Coefficient	Stand Error	T-Statistic
1	LPUR	0	–1.818346	.2254321	–8.066048
2	DPUR	0	1.486862	.3469340	4.285719
3	LPUW	0	1.667045	.2855751	5.837500
4	DPURW	0	–1.757236	.3453680	–5.088012
5	LMCPU	0	–.4066365	.2446763	–1.661937
6	DMCPUR	0	.8992904	.2489522	3.612301
7	D1	0	.1669916	.1013193	1.648172
8	D2	0	.2383134	.9420960E - 01	2.529608
9	D3	0	–.1198631	.6645213E - 01	–1.803751
10	D4	0	4.140785	1.173220	3.529419
11	D5	0	6.42024	1.750725	3.670494
12	D6	0	–.3132478	.8683011E - 01	–3.607594
13	D7	0	.8084648E - 01	.1059533	–.7630391
14	D8	0	4.533984	1.1[illegible]84	3.856137
15	D9	0	4.322934	1.197395	3.610284
16	D10	0	4.992824	1.785621	2.796128
17	D11	0	3.549187	1.253424	2.831594
18	D12	0	8.393379	2.697835	3.111154
19	D13	0	.1821569E - 01	.8062248E - 01	.2259380
20	D14	0	4.210286	1.166490	3.609362
21	D15	0	–.2466610E - 01	.6362470E - 01	–.3876811
22	D16	0	.4092938	.9429086E - 01	4.340758
23	D17	0	4.202691	1.219089	3.4474.03
24	D18	0	–.2081525	.1144936	–1.818026
25	D5T	0	–.1996336	.597839E -01	–3.342357
26	D10T	0	–.1639756	.6268314E - 01	–2.615945
27	D12T	0	–.1432150	.5620439E - 01	–2.548110

* Zero Degree of Homogeneity: (1) Major Consuming States. F (1 27) = .6933950. Significance Level .4123174. (2) All India: F (1,28) = 25.22332 Significance Level .2609414E-04

where

LPUR = log of price of urban rice, DPUR = log of price of urban rice * dummy for major rice consuming state.

LPUW= log of price of urban wheat, DPURW = log of price of urban wheat * dummy for major rice consuming states, LMCPU: log of monthly per capita expenditure (urban), DMCPUR = log of monthly per captita expenditure (urban) *dummy for major rice consuming states, D1, .., D18 = state intercept dummies, D1T,.., D18T = state trend dummies.

Some insignificant dummies are not reported.

Table 2.2: Equation for Cereal Demand at State Level (Urban Wheat)

Dependent variable log (Qd)

RBAR**2 99561760 Durbin-Watson 2.03310633

No	LABEL	LAG	Coefficient	Stand Error	T-Statistic
1	LPUW	0	–.6510694	.2047921	–3.179172
2	DPUW	0	.3810027	.2767251	1.376827
3	LPUR	0	–.9318726	.3479890	–2.677880
4	DPURW	0	1.094992	.3961780	2.763889
5	LMCPU	0	.5903437	.1007577	5.859046
6	DMCPUW	0	–.4391455	.2198285	–1.997673
7	D1	0	–1.24107		
16	D10	0	.1487939E - 01	.8175530E - 01	.1819991
17	D11	0	1.248782	.9980730	1.251193
18	D12	0	1.429722	.9707075	1.472866
19	D13	0	7.304711	2.097234	–3.483021
20	D14	0	1.349886	.9326095	1.447429
21	D15	0	.2771742	.9776661E - 01	2 835060
22	D16	0	–17.49890	4.291542	–4.077533
23	D17	0	1.120960	.9770887	1.147245
24	D18	0	–19.37951	4.380118	–4.424427
25	D1T	0	.1448980	.7889854E - 01	1.836510
26	D2T	0	.1591778	.5828867E - 01	2.730854
27	D3T	0	.2951175	.7241454E - 01	4.075390
28	D6T	0	.2385882	.6314825E - 01	3.778224
29	D7T	0	.1502193	.6053471E - 01	2.481539
30	D13T	0	.1629864	.5597724E - 01	2.911655
31	D16T	0	.3509034	.9180936E - 01	3.822088
32	D18T	0	.3613406	.8355039E - 01	4.324823

* Zero Degree of Homogeneity: (1) Major Consuming States. F (1 22) = .1887880 Significance Level .6681592. (2) All India: F (1,23) = 13.59030 Significance Level .1221219E - 02

where

LPUW = log of price of urban wheat, DPUW = log of price of urban wheat * dummy for major wheat consuming states. LPUR = log of price of urban rice (substitute grain). DPURW = log of price of urban rice * dummy for major wheat consuming states, LMCPU= log of monthly expenditure per capita (urban) DMCPUW = log of monthly expenditure per capita (urban) *dummy for majorwheat consuming states. D1, .., D18 = state intercept dummies, D1T,.., D 18 T = state trend dummies.

Some insignificant dummies are not reported.

The main interest here lies, however, in estimating the levels of consumption per capita per month on the hypothetical basis that real income remains constant. To this end, the basic relationship between demand, income and prices is used.

In general, the demand function is defined as

$D_x = f(P_x, P_s, P_c, I)$
D_x = demand for commodity x
P_x = price of commodity x
P_s = price of substitutes
P_c = price of complements
I = money income

The demand function is homogeneous of degree zero if the following relation holds:

$$(\partial D_x / \partial P_x)^* P_x + (\partial D_x / \partial P_s)^* P_s + (\partial D_x / \partial P_c)^* P_c + \partial D_x / \partial I^* I = 0$$

Dividing throughout by D_x, this relationship gets converted into an additive function between all the elasticities of demand, namely, the own price elasticity, elasticity with respect to price of substitutes and/or price of complements. This implies:

$$\eta_x + \eta_s + \eta_c + \eta_I = 0$$

where η_i are the respective elasticities. This can be tested using the standard F test. Such a test would reveal whether the assumption of the degree of homogeneity being zero is true. If the test validates this restriction, then the implication is that the levels of consumption remain constant if all prices increase along with an increase in the money income, such that real income remains constant. This is in keeping with Engel's law where the levels and patterns of real consumption depend upon real income. The advantage with verifying such a hypothesis of zero degree homogeneity is that stable levels of consumption can then be predicted. In the subsequent analysis of allocation and lifting from PDS, these stable levels of consumption have been used as a basis for making comparisons. The basic assumption in this study is that in the given three years the average real income is constant. Therefore, stable levels of consumption can be estimated and can be compared with the actual levels of allocation and lifting.

IV
Consumption Level Estimation: Methodology

Regression equations for the four data series relating to demand for superior cereals were estimated by using slope, intercept and trend dummies. One (intercept) dummy each for 18 major consuming states were used to pick up inter-state differences. Similarly, in the initial estimates, 18 trend dummies were also included. Apart from this; a dummy each for major wheat consuming and major rice consuming states was formed. This serves the purpose of identifying the difference between the coefficients at the all-India level and the coefficients for major consuming states of either rice or wheat. For a rigorous testing of the zero degree homogeneity condition, own price, price of substitutes, price of complements and income need to be included as explanatory variables.

Some of the trend variables were found to be insignificant in the initial estimation and were dropped. We also tried to incorporate income inequalities. This was done in the light of the argument of Kumar, Rosegrant and Boulis (1994), who emphasised the significance of income inequalities in the determination of consumer demand. Dummies were created for groups of states amongst the sample 18, which happened to fall in the same quartile range of monthly per capita consumption expenditure. These dummies were used to determine the differences in the coefficients for these four groups in respect of the income variable. Once again, the results were not significantly different from the initial estimates, which took income as a gross variable. Neither were they illuminating in terms of different signs for high as opposed to low income/expenditure classes. The final estimates therefore, were based on the original model in which consumption expenditure was taken in money terms and as a single variable.

Degree of Homogeneity

For verifying the hypothesis of the degree of homogeneity being zero, two tests were conducted. The first was a single linear restriction on all the six coefficients of own price, price of substitutes and income, that is, Test 1. (Major consuming states)

$$b_1 + b_2 + b_3 + b_1^* D_w + b_2^* D_w + b_3^* D_w = 0 \qquad \text{(i)}$$

Table 2.3: Equation for Cereal Demand at State Level (Rural Rice)

Dependent variable log (Qd)
RBAR**2 99727615 Durbin-Watson 1.96715258

No	LABEL	LAG	Coefficient	Stand Error	T-Statistic
1	LPRR	0	-.5403501	.2134593	-2.531396
2	DPRR	0	.1762175	2470313	.7133406
3	DPRW	0	1.021419	2207203	4.627663
4	DPRRW	0	1.129530	2359691	-4.786770
5	LMCPR	0	- 1237082	.1878845	-.6584269
6	DMCPRR	0	.7487157	.1924624	3.890193
7	D1	0	- 1593109	6937245E - 01	-2.296457
8	D2	0	- 1652318E - 01	6055217E - 01	-.2728752
9	D3	0	-.3086767	.6034357E - 01	-5.115321
10	D4	0	2 352933	1 042137	2.257797
11	D5	0	4 068329	1 071041	3.798482
12	D6	0	- 9464693	6054012E - 01	-15.63375
13	D7	0	.3960253	.9200284	4304490
14	D8	0	4.764389	1.517449	3.139736
15	D9	0	4 713486	1 685534	2 796434
16	D10	0	1.473588	1.322708	1.114069
17	D11	0	.3254105	1.138745	.2857623
18	D12	0	5.382233	2.297166	2.342989
19	D13	0	- 3070860	.6187693E - 01	-4.962851
20	D14	0	6 681980	2.922762	2.286187
21	D15	0	-.1313062E - 01	.5359597E - 01	-.2449927
22	D16	0	-.7742549E - 01	6009192E - 01	-1.288451
23	D17	0	9 677025	2.390235	4.048567
24	D18	0	- 6760951	.7009091E - 01	-9.645973
25	D4T	0	-.1234694	.7417411E - 01	-1 664569
26	D5T	0	-.2559189	.8052051E - 01	-3 178306
27	D7T	0	- 4882721E - 01	.4593834E - 01	-1 062886
28	D8T	0	- 1196444	.6956478E - 01	-1.719899
29	D9T	0	-.1359840	7211612E - 01	-1.885625
30	D10T	0	- 4616920E - 01	4553586E - 01	-1.013909
31	D12T	0	-.1867223	6487494E - 01	-2.878189
32	D14T	0	- 1201689	.7516136E - 01	-1.598813
33	D17T	0	-.1557205	.5440112E - 01	-2.862450

* Zero Degree of Homogeneity: (1) Major Consuming States
F (1 21) = 2.372100. Significance Level .1384548
(2) All India: F (1,22) = 1.126846 Significance Level .2999639
where
LPRR = log of price of rural rice,
DPRW= log of price of rural wheat (substitute grain).
DPRR = log of price of rural rice *dummy for major rice consuming states.
DPRRW = log of rice of rural wheat*dummy for major rice consuming states.
LMCPR = log of monthly expenditure per capita (rural)
DMCPR = log of monthly per capita expenditure (rural) *dummy for major rice consuming states
D1, . , D18 = state intercept dummies, D1T, .. D18T = state trend dummies
Some insignificant dummies are not reported

with dummy Dr for rice (rural and urban) equations and dummy Dw for wheat (rural and urban) equations.

The second test was a single linear restriction on only three of the six coefficients of own price, price of substitute and income, i e, Test 2.

(All India)

$$b_1 + b_2 + b_3 = 0 \qquad \text{(ii)}$$

V
Results

All pooled equations have high explanatory power. The minimum R^2 is 0.98 which is in the case of rural wheat consumption. In all other cases, it exceeds 0.99. Corrections, wherever needed, for serial correlation, were made. (Tables 2.1 to 2.4).

Urban Rice

The own elasticity bears the right sign at the all India level and is large (-1.81 in Table 2.1). For the major rice consuming states, the interaction dummy is significant and positive at 1.48. For them then, the own price elasticity is –.33 (given by –1.81 +1.48). This is expected behaviour. The price of the substitute cereal, wheat, bears the right sign at the all India level and is highly elastic at +1.66. For the country as a whole, income elasticity is –0.40, but for the major consuming states, it is + 0.49 (given by 89 - .40). Most of the intercepts are significant, with the sign varying in different cases. The only states whose intercepts are not significant are Kerala and Tamil Nadu. The noticeable factor is that there is a definite negative trend that is both statistically significant and numerically weighty. This points to a decline in rice consumption in Haryana, Orissa and Rajasthan. at the rate of 19.9 per cent, 16.4 per cent and 14.3 per cent per annum respectively. The reverse trend can be seen in urban rice consumption. However, interestingly, these are independent trends, because the states in which the decline is apparent, do not match the states in which wheat consumption has been rising. A more detailed analysis of the changes in the real income levels and a sub-state level study for regional patterns may reveal a shift towards superior cereal substitutes. Of the two tests, the null hypothesis of zero degree homogeneity is accepted only for the major consuming states (Table 2.1).

Urban Wheat:

Results for this are reported in Table 2.2 Wheat consumption in urban areas has an overall own price elasticity of -0.65. The corresponding elasticity for major consuming areas is less but nevertheless, bears the right sign, and stands at –0.27 (given by –.65 + .38). The difference, however, is significant only at the 10 per cent level. At the national level, the price of rice as a substitute bears a negative sign and is significant, with its value being –0.93. The corresponding elasticity is 0.16 for the major consuming states (given by 1.09 – .93). This means that rice is definitely a substitute for wheat in consuming areas and, significantly, its price elasticity is low. The income elasticity is positive, weighty (stands at around 0.6) and significant at the all India level. On the other hand, it is positive, significant but small for major consuming states at 0.15 (given by 0.59 – 0.44). The states that have an intercept insignificantly different from zero are Gujarat, Madhya Pradesh, Maharashtra, Orissa and Punjab. The upward trend in urban wheat consumption is apparent from the three significant trend variables relating to Tamil Nadu, the north-east and southern states.

This is direct evidence of change in consumption patterns in major rice consuming states. The growth rates are also fairly high. It may be concluded that the total cereal intake in these states has increased since none amongst them figure in the declining trend of rice consumption. The F-test for verifying the restriction regarding degree of homogeneity follows the same pattern of being accepted for the major consuming states and rejected at the all-India level (Table 2.2).

Rural Rice

The own price elasticity at the all-India level is -0.54 and significant. There is no significant difference between the elasticity of major consuming states and the all-India magnitude. Wheat price elasticity is positive and almost equal to unity. It is significant at both levels, but is marginally negative for the major consuming states. The income elasticity of demand, in general, is insignificant but bears a negative sign. This virtually means that rural rice consumption in major consuming states has an income elasticity of demand which is around 0.75, and is highly significant. The intercepts of Bihar, Kerala, Punjab West Bengal and the North-East are not significant. There is an unmistakable trend of decline in rural rice consumption. Significant falling trend rates are observed in Gujarat, Haryana, Kerala,

Table 2.4: Equation for Cereal Demand at State Level (Rural Wheat)

Dependent variable log (Qd)

RBAR**2 98112923 Durbin-Watson 1.86065420

No	LABEL	LAG	Coefficient	Stand Error	T-Statistic
1	LPRW	0	- 1533865	2431563	-.6308146
2	DPRW	0	-1 062605	.3647601	-2.913161
3	LPRR	0	- 3168371	3742343	- 8466277
4	DPRWR	0	9064231	.5309067	1.707312
5	LMCPR	0	.1759491	.1222791	1 438914
6	DMCPRW	0	.2531634	.1573396	1.609026
7	D1	0	-1 774171	.2108778	-8.413263
8	D2	0	-.7647052	1840630	-4 154585
9	D3	0	1.543654	.1830061	8.434989
10	D6	0	- .3048400	.1837375	-1.659106
11	D7	0	--.3985479	.1978089	-2.014812
12	D8	0	1310726	.1424001	.9204526
13	D9	0	- 6894751	.1501874	-4.590765
14	D10	0	-9 451778	4.001858	- 2 361847
15	D11	0	.2375507	.1459446	1 627677
16	D12	0	-8.746721	4.884085	-1 790862
17	D13	0	- 1.294744	.1878064	-6.894035
18	D14	0	3561427	.1377201	2.585989
19	D15	0	--.3427966E-01	.1625815	- 2108460
20	D16	0	-1.626255	1808463	-8.992468
21	D17	0	-12 14158	6.773541	-1.792502
22	D18	0	.2925177	.2132038	1 372010
23	D10T	0	.3065489	.1377353	2.225637
24	D12T	0	.2576188	.1395737	1.845755
25	D17T	0	.2395180	.1355442	1.767084

*Zero Degree of Homogeniety Test: (1) Major Consuming States F(1,29) = .6364540 Significance Level 431482 (2) All India
F(1,30) = 1 065424 Significance Level 3102313

where

LPRW = Log of price of rural wheat,
DPRW = Log of price of rural wheat *dummy for major wheat consuming state
LPRR = Log of price of rural rice (substitute grain),
DPRWR = Log of price of rural rice *dummy for major wheat consuming states,
LMCPR = Log of monthly per capita expenditure (rural)
DMCPRW = Log of monthly per capita expenditure (rural) *dummy for major wheat consuming states,
D1, ..,D18 = State intercept dummies, D1T,...,D18T = State trend Dummies. Not all insignificant dummies are reported.

Madhya Pradesh, Maharashtra, Uttar Pradesh, Rajasthan and the north-west. However, unlike the consumption of urban rice, there is a noticeable substitution towards wheat consumption at least in states like Orissa, Rajasthan and the north-west. The degree of homogeneity is zero at the all-India level (Table 2.3).

Rural Wheat

Rural wheat consumption is negatively related to own price at both levels but is significant only for major consuming states. Its value is –1.06. Rice as a substitute bears a negative sign and is not significant at the all India level but is positive and stands at 0.9 (given by 0.0 +0.9) for the major consuming states. Income in this case is not significant at the 5 per cent level but is significant at the 10 per cent level for both the all India and the major consuming states. The elasticities are respectively 0.17 and 0.42 (given by 0.17 + 0.25) The intercepts are highly significant for all states except Madhya Pradesh and West Bengal. As pointed out, Orissa, Rajasthan and the north west show significant growth rates which are respectively, 0.3, 0.25 and 0.24. It must be kept in mind that these consumption levels are per capita measures. It is significant that, like rural rice, the demand for rural wheat also displays zero degree of homogeneity at both levels. This implies that in general the consumption of cereals in rural areas conforms to real income levels (Table 2.4).

These demand equations were used to predict the stable consumption levels generated on the hypothetical basis that if real income remains constant the levels of demand too remain constant. This is an outcome of the degree of homogeneity being zero, which has been verified at almost all levels, and for both rural and urban areas. The predictive efficiency of the model and the specific equations has been tested on the basis of the ratio of actual levels of consumption to such predicted levels of hypothetical consumption. The results of this test show that the maximum deviation is in the case of rural wheat consumption in Haryana, in 1991, where actual consumption is 42 per cent above hypothetical consumption. This however appears to be an outlier. In most cases, the ratio is very close to unity. On the lower side, the variation does not exceed 20 per cent (for rural wheat in Punjab) in 1990. It must be pointed out that in the other three series, generated by the model, other than rural wheat, the variation is much less. In general, it does not exceed 6 per cent on either side. The deviations

TABLE 3: STABLE PREDICTED DEMAND FOR CEREAL AT STATE LEVEL
[Per Capita/Month]

(in kg)

State	Urban		Rural	
	Rice	Wheat	Rice	Wheat
Andhra Pradesh				
1990	10.8495	1.07941	11 9687	.225967
1991	10.2410	941165	13.2162	.223090
1992	10 0038	865470	11.9636	.209478
Assam				
1990	10 4256	1.32986	13.0481	.587336
1991	11 1871	1 45251	13.2802	574349
1992	10 7740	1.37078	12.6362	.557782
Bihar				
1990	7.50190	6 22488	9.03338	5.97861
1991	7.06705	5 71485	8.75914	5.46908
1992	6 62844	6 66730	8.55662	5.28749
Gujarat				
1990	2 31384	5 47289	2.08799	6 31206
1991	2.04888	5 54495	2 06842	5 89341
1992	2 20081	5 40649	2 17068	5 17728
Haryana				
1990	1 02621	9 02509	1.04364	9.58162
1991	.949566	8 78848	.974034	8 45907
1992	995426	8 44851	723315	9.56094
Karnataka				
1990	6.08534	1 56287	4.81564	931297
1991	6 34703	1 80407	5 23579	899859
1992	5.89425	1 75702	4.82956	.846050
Kerala				
1990	8 46982	1 03775	8.83281	.897993
1991	9.34838	1 18007	9 76758	885663
1992	8 41209	989255	8 95084	827781
Madhya Pradesh				
1990	3 79293	7 30345	6.11493	6 50060
1991	3.68950	7 20946	6 02318	6 11164
1992	3 85213	7 09215	6 32221	5 36269
Maharashtra				
1990	3 63901	4 61454	2 94797	2 60955
1991	3 16347	4 61878	2.76731	2 72436
1992	3 31190	4 50677	2 83654	2.26988
Orissa				
1990	11 9651	2.45234	14.9875	.551170
1991	10 9151	2.28938	17.0637	.748972
1992	10.7757	2.58426	14.8914	935949
Punjab				
1990	858592	8 40357	.645025	14.2515
1991	1.32104	8 05420	839518	11.3057
1992	.782174	8 31101	1.09206	8.17662
Rajasthan				
1990	.587028	10.3035	.211773	8.52328
1991	.591523	10.0246	196666	10.2914
1992	.524132	9 77875	201688	10.1332
Tamil Nadu				
1990	8.52427	.766879	9 35523	341777
1991	9 28971	.816606	10.7127	.345166
1992	9 50209	.836595	9.99721	.328050
Uttar Pradesh				
1990	2.58165	8 68359	3 86810	10.3757
1991	2.68002	8 44729	4 18066	9.20283
1992	2 50394	8 43369	3.83857	8.93006
West Bengal				
1990	8 75560	2.98130	14 0734	1.32573
1991	8 52193	3 03424	13.4727	1 16254
1992	8 73420	2 75119	13 3405	1 13764
North Eastern				
1990	13.3094	727366	13 9750	235907
1991	13 5007	753305	14 0392	239727
1992	12 9273	957060	12.7173	.220677
North Western				
1990	3.25282	6 86121	4 73816	5.13042
1991	2 08233	7 10240	4 75544	5 85057
1992	2 15284	6.92822	4 28970	7.13432
Southern				
1990	8.00970	1 64720	7 43619	1.77500
1991	8 05823	2 07597	9 27349	1.85497
1992	6 72275	1 77857	9 13861	1 72128

TABLE 4 STABLE PREDICTED DEMAND FOR CEREAL AT STATE LEVEL

(Per Month in Tonnes)

State	Urban		Rural	
	Rice	Wheat	Rice	Wheat
Andhra Pradesh				
1990	194066	19307 5	214086	4041.90
1991	183182	16834 7	236400	3990 44
1992	178939	15480 8	213994	3746 96
Assam				
1990	25936 8	3308 42	32461 0	1461 17
1991	27831 2	3613 55	33038 4	1428 86
1992	26803 5	3410 22	31436 3	1387 65
Bihar				
1990	85169 2	70671 1	102556	67875 2
1991	80232 3	64880 8	99442 6	62090 5
1992	75252 8	75693 9	97143.4	60028.9
Gujarat				
1990	32963 1	77967 1	29745.6	89922 0
1991	29188 5	78993 7	29466 8	83957 9
1992	31352 9	77021 2	30923 6	73755 8
Haryana				
1990	4161 02	36594 4	4231 69	38851.0
1991	3850 25	35635 0	3949 46	34299 4
1992	4036 20	34256 5	2932.86	38767.2
Karnataka				
1990	84633.6	21736.1	66974 9	12952.3
1991	88273 1	25090 6	72818 3	12515.0
1992	81976 0	24436 3	67168 5	11766.7
Kerala				
1990	65050.7	7970 23	67838.6	6896.85
1991	71798 3	9063.28	75017 9	6802 15
1992	64607 3	7597.77	68745.1	6357.60
Madhya Pradesh				
1990	58179 1	112026	93795 9	99711 6
1991	56592 6	110585.	92388 6	93745 4
1992	59087 2	108785.	96975.3	82257 4
Maharashtra				
1990	128879	163428	104405.	92419 5
1991	112037	163578	98006 7	96485 6
1992	117294	159611.	100459	80389.8
Orissa				
1990	50672 0	10385.6	63471.8	2334.20
1991	46225 3	9695 49	72264 5	3171 88
1992	45634 9	10944 3	63064 8	3963 73
Punjab				
1990	5145 74	50364 5	3865 78	85412 4
1991	7917 29	48270 6	5031.42	67757.6
1992	4687 74	49809 8	6544.96	49004.3
Rajasthan				
1990	5909.68	103726	2131 94	85804 8
1991	5954 93	100919	1979.86	103605.
1992	5276 50	98443 8	2030 42	102012
Tamil Nadu				
1990	162623	14630.2	178475	6520.28
1991	177225	15578 9	204373	6584 94
1992	181277.	15960.2	190723	6528 40
Uttar Pradesh				
1990	71268.8	239718	106782	286431
1991	73984 4	233195	115411	254053.
1992	69123 6	232820	105967	246522
West Bengal				
1990	163796	55773 0	263280	24801 2
1991	159425	56763 4	252042	21748.3
1992	163396	51468 2	249569	21282.5
North Eastern				
1990	25703 2	1404 70	26988 7	455.586
1991	26072 7	1454 79	27112.6	462.963
1992	24965 3	1848 28	24559 8	426.174
North Western				
1990	35244 9	74342.4	51338.8	55589 0
1991	22562 4	76955 8	51526.0	63392.0
1992	23326 4	75068 5	46479 7	77301.6
Southern				
1990	9281 4	1910.87	8626 53	2059.13
1991	9348.14	2408.28	10757 9	2151.90
1992	7798.89	2063 27	10601.5	1996 81

in general do not follow any pattern, neither in favor nor against the major consuming states.

VI
Evaluation of PDS: Allocation and Lifting

Data for allocation and lifting was available for a fairly long period. However, the limitation of demand data restricts the study of such an evaluation to the three years 1990, 1991 and 1992. The earlier exercise, apart from illuminating questions relating to consumption, serves the purpose of providing a basis for evaluating the PDS.

Monthly allocation and lifting data was averaged over the 36 months of these three years. The data was available consistently for 25 states and six union territories. The following indices were developed for purposes of comparison and evaluation.

1 $MPCC_i$ = Monthly per capita consumption (in tonnes) of ith state.
2 $R_mC = MPCC_i / \mu_c$ = Ratio of consumption of ith state to average consumption per capita.
3 $R_aC_i = A_i / MPCC_i$ = Ratio of allocation of ith state to its monthly consumption per capita.
4 $R_lC_i = L_i / MPCC_i$ = Ratio of lifting of the ith state to its monthly consumption per capita.
5 $R_aA = R_aC_i / \mu_a$ = Ratio of R_aC_i to its own average.
6 $R_lA = R_lC_i / \mu_l$ = Ratio of R_lC_i to its own average.
7 $D_iAC = R_aA / R_mC$ = Distortion index of allocation of ith state with respect to monthly consumption pattern.
8 $DiLC = R_lA / RmC$ = Distortion index of lifting of ith state with respect to monthly consumption pattern.

While we admit that PDS has a rationale for subsidising consumption, in its functioning, it should complement the consumption needs and patterns. The above predicted levels of per capita consumption represent stable levels based on tastes and socio-cultural needs. The data on which these estimates were made pertain to total expenditure on food grains, irrespective of whether they are purchased from the open market or PDS. Therefore, both allocation and lifting would form a certain proportion of this level of consumption. Conclusions drawn from implicit subsidies in money terms, in other studies, do not clarify the basic role of PDS in respect of real consumption. The quantity data of allocation and off-take can conveniently be juxtaposed with the quantitative estimates of per capita consumption. A rational policy of allocation needs to be geared to these fundamental consumption patterns. Any amount of

TABLE 5.1: RURAL WHEAT DEMAND AND PDS – ALLOCATION/LIFTING

S No	State/UT	Per Capita Consumption (In Tonnes) (1)	Ratio of (1) to Average (2)	Ratio of Allocation to (1) (3)	Ratio of Lifting to (1) (4)
1	Andhra Pradesh	0.00021	0.06630671	1.56145229	0.78062670
2	Arunachal Pradesh	0.00023	0.07262164	30.5565091	30.1178721
3	Assam	0.00056	0.17681790	2.50291712	2.01716088
4	Bihar	0.00557	1.75870670	0.07073750	0.06418085
5	Goa	0.00178	0.56202835	10.7903732	8.14964336
6	Gujarat	0.00579	1.82817088	0.21422509	0.17802539
7	Haryana	0.00991	3.12904549	0.09802384	0.06515627
8	Himachal Pradesh	0.00603	1.90394998	0.44276406	0.27189455
9	Jammu and Kashmir	0.00603	1.90394998	0.47506068	0.32967779
10	Karnataka	0.00088	0.27785671	0.74532711	0.71128910
11	Kerala	0.00086	0.27154178	1.55972616	1.32376759
12	Madhya Pradesh	0.00599	1.89132013	0.15047675	0.13482296
13	Maharashtra	0.00252	0.79568059	0.36879388	0.36070862
14	Manipur	0.00023	0.07262164	6.29782794	5.54182563
15	Meghalaya	0.00023	0.07262164	4.79749735	4.49807907
16	Mizoram	0.00023	0.07262164	18.5390770	17.2293651
17	Nagaland	0.00023	0.07262164	39.7951446	34.8775411
18	Orissa	0.00074	0.23365223	0.76474774	0.65045056
19	Punjab	0.01124	3.54898803	0.14135673	0.08865714
20	Rajasthan	0.00964	3.04379400	0.13403101	0.11857773
21	Sikkim	0.00023	0.07262164	111.212006	56.9015155
22	Tamil Nadu	0.00033	0.10419626	1.01566554	0.64646961
23	Tripura	0.00023	0.07262164	28.6469476	13.2327872
24	Uttar Pradesh	0.0095	2.99958952	0.05420145	0.04699178
25	West Bengal	0.0012	0.37889551	0.72098708	0.58116917
26	Andaman and Nicobar	0.00178	0.56202835	2.87188758	2.51290164
27	Chandigarh	0.00603	1.90394998	0.14227040	0.11904258
28	Dadra and N Haveli	0.00178	0.56202835	0.73927103	0.10142437
29	Daman and Diu	0.00178	0.56202835	129.578775	87.3167788
30	Delhi	0.00603	1.90394998	0.84384929	0.74746945
31	Lakshadweep	0.00178	0.56202835	1.78065657	0.60361239
32	Pondicherry	0.00178	0.56202835	167.502134	121.393981
Average		0.00316718		12.8262125	8.71998340
Std Dev		0.00336481		30.0252161	19.0359944
C V		1.06239766		2.34092614	2.18303103

TABLE 5.2. MONTHLY RURAL WHEAT DEMAND AND PDS – ALLOCATION/LIFTING

S No	State/UT	Ratio of (3) to Average (5)	Ratio of (4) to Average (6)	Ratio of (5) to (2) (7)	Ratio of (6) to (2) (8)
1	Andhra Pradesh	0.12179815	0.08952141	1.83689010	1.35011076
2	Arunachal Pradesh	2.38350305	3.45388442	32.8208369	47.5599885
3	Assam	0.19523534	0.23132578	1.10416046	1.30827126
4	Bihar	0.00551774	0.00736018	0.00313738	0.00418500
5	Goa	0.84168278	0.93459212	1.49758064	1.66289142
6	Gujarat	0.01671022	0.02041575	0.00914040	0.01116731
7	Haryana	0.00764616	0.00747204	0.00244360	0.00238796
8	Himachal Pradesh	0.03453697	0.03118056	0.01813964	0.01637677
9	Jammu and Kashmir	0.03705621	0.03780708	0.01946280	0.01985718
10	Karnataka	0.05813784	0.08156985	0.20923676	0.29356894
11	Kerala	0.12166350	0.15180821	0.44804708	0.55906021
12	Madhya Pradesh	0.01173765	0.01546134	0.00620606	0.00817489
13	Maharashtra	0.02876707	0.04136566	0.03615404	0.05198778
14	Manipur	0.49125022	0.63553046	6.76451566	8.75125446
15	Meghalaya	0.37421976	0.51583475	5.15300612	7.10304459
16	Mizoram	1.44610585	1.97584462	19.9128775	27.2073804
17	Nagaland	3.10414544	3.99971801	42.7440827	55.0761170
18	Orissa	0.05965271	0.07459295	0.25530553	0.31924776
19	Punjab	0.01102626	0.01016710	0.00310687	0.00286478
20	Rajasthan	0.01045483	0.01359836	0.00343480	0.00446757
21	Sikkim	8.67488350	6.52540316	119.453145	89.8548015
22	Tamil Nadu	0.07922508	0.07413642	0.76034471	0.71150747
23	Tripura	2.23455129	1.51752147	30.7697713	20.8962707
24	Uttar Pradesh	0.00422788	0.00538896	0.00140948	0.00179656
25	West Bengal	0.05623924	0.06664784	0.14842941	0.17590031
26	Andaman and Nicobar	0.22401619	0.28817679	0.39858521	0.51274422
27	Chandigarh	0.01109753	0.01365167	0.00582869	0.00717018
28	Dadra and N Haveli	0.05766544	0.01163123	0.10260238	0.02069510
29	Daman and Diu	10.1075488	10.0133920	17.9840549	17.8165247
30	Delhi	0.06582287	0.08571897	0.03457174	0.04502165
31	Lakshadweep	0.13889676	0.06922160	0.24713480	0.12316390
32	Pondicherry				
Average				9.12108529	9.07993549
Std Dev				22.9595139	20.0341627
C V				2.51719101	2.20642126

ubsidy in money terms cannot adequately erve the purpose if the outcome of PDS loes not complement these basic consumption patterns. The indices mentioned above seek to delve into the crucial question of whether allocation and lifting from PDS serve this purpose. In this sense, any deviation from the patterns of consumption and demand are distortions and need corrections (Tables 3 and 4).

Urban Rice

The third and fourth indices simply provide an insight into the extent of dependence of the consumer on the PDS. The second index is a measure of the deviation from the average pattern of consumption. For instance, this index varies from a low of 33 per cent to a high of 180 per cent in the case of urban rice demand. The proportion of allocation is extremely low in the case of Bihar (only 2.2 per cent of the consumption level), although its consumption is very near to the average. In terms of lifting the ratio is around 1.1 per cent. On the other hand, Jammu and Kashmir receives 87 per cent in excess of the average consumption, while the lifting is almost equal to its per capita consumption. This deviation is further exacerbated when the percentage of allocation and lifting are seen as a ratio to their own average. In terms of allocation, then, Jammu and Kashmir receives four times the average and the lifting is three times the average. Many other states also display such proportions. The situation of Bihar does not change significantly even if such a measure is adopted. The average per capita consumption is 4.28 kg. The average ratios of allocation and lifting are 40 per cent and 29 per cent respectively. There is a remarkable equivalence if the coefficients of variation of these two ratios are observed. Yet, the CV of per capita consumption is lower. This, in itself, implies that PDS quantities deviate to a greater extent. The equivalence however breaks down when the seventh and eighth indices are observed. Allocation has a coefficient of variation of 1.38 while that of lifting is only 1.22, which is still greater than twice that of per capita consumption (Tables 8.1 and 8.2).

Urban Wheat

The average wheat consumption is 4.25 kg. In spite of excluding Pondicherry, which is an outlier, the average ratio of allocation is 5.86. This is mostly on account of small states and union territories. Here again, Bihar receives only 6.3 per cent and lifts only 5.3 per cent of its per capita consumption. Once again, the coefficients

TABLE 6.1: MONTHLY URBAN WHEAT DEMAND AND PDS – ALLOCATION/LIFTING

S No	State/U T	Per Capita Consumption (In Tonnes) (1)	Ratio of (1) to Average (2)	Ratio of Allocation to (1) (3)	Ratio of Lifting to (1) (4)
1	Andhra Pradesh	0.00096	0.22561692	0.34156768	0.17076209
2	Arunachal Pradesh	0.0008	0.18801410	8.78499636	8.65888825
3	Assam	0.00138	0.32432432	1.01567651	0.81855804
4	Bihar	0.00619	1.45475910	0.06365232	0.05775239
5	Goa	0.00182	0.42773207	10.5532222	7.97053031
6	Gujarat	0.00547	1.28554641	0.22675745	0.18844004
7	Haryana	0.00874	2.05405405	0.11114602	0.07387856
8	Himachal Pradesh	0.00696	1.63572267	0.38360162	0.23556381
9	Jammu and Kashmir	0.00696	1.63572267	0.41158275	0.28562601
10	Karnataka	0.0017	0.39952996	0.38581638	0.36819671
11	Kerala	0.00106	0.24911868	1.26543821	1.07400012
12	Madhya Pradesh	0.00719	1.68977673	0.12536241	0.11232121
13	Maharashtra	0.00457	1.07403055	0.20336118	0.19890278
14	Manipur	0.0008	0.18801410	1.81062553	1.59327486
15	Meghalaya	0.0008	0.18801410	1.37928048	1.29319773
16	Mizoram	0.0008	0.18801410	5.32998464	4.95344247
17	Nagaland	0.0008	0.18801410	11.4411040	10.0272930
18	Orissa	0.00243	0.57109283	0.23288614	0.19807959
19	Punjab	0.00825	1.93889541	0.19258784	0.12078864
20	Rajasthan	0.01003	2.35722679	0.12881943	0.11396703
21	Sikkim	0.008	1.88014101	3.19734518	1.63591857
22	Tamil Nadu	0.008	1.88014101	0.04189620	0.02666687
23	Tripura	0.008	1.88014101	0.82359974	0.38044263
24	Uttar Pradesh	0.00851	2	0.06050690	0.05245851
25	West Bengal	0.00292	0.68625146	0.29629606	0.23883664
26	Andaman and Nicobar	0.00182	0.42773207	2.80876918	2.45767303
27	Chandigarh	0.00696	1.63572267	0.12326013	0.10313603
28	Dadra and N Haveli	0.00182	0.42773207	0.72302331	0.09919527
29	Daman and Diu	0.00182	0.42773207	126.730890	85.3977287
30	Delhi	0.00696	1.63572267	0.73109357	0.64759207
31	Lakshadweep	0.00182	0.42773207	1.74152126	0.59034619
32	Pondicherry	0.00182	0.42773207	163.820768	118.725981
Average		0.004255		5.86018295	4.19817607
Std Dev		0.00310765		35.1547504	24.8325197
CV		0.73035296		5.99891688	5.91507343

TABLE 6.2 URBAN WHEAT DEMAND AND PDS – ALLOCATION/LIFTING

S No	State/UT	Ratio of (3) to Average (5)	Ratio of (4) to Average (6)	Ratio of (5) to (2) (7)	Ratio of (6 to (2) (8)
1	Andhra Pradesh	0.05828618	0.04067535	0.25834135	0.18028504
2	Arunachal Pradesh	1.49909934	2.06253844	7.97333465	10.9701263
3	Assam	0.17331822	0.19497969	0.53439786	0.60118740
4	Bihar	0.01086183	0.01375656	0.00746641	0.00945624
5	Goa	1.80083495	1.89857227	4.21019381	4.43869507
6	Gujarat	0.03869460	0.04488622	0.03009973	0.03491606
7	Haryana	0.01896630	0.01759779	0.00923359	0.00856734
8	Himachal Pradesh	0.06545898	0.05611106	0.04001838	0.03430353
9	Jammu and Kashmir	0.07023377	0.06803582	0.04293745	0.04159374
10	Karnataka	0.06583691	0.08770408	0.16478593	0.21951816
11	Kerala	0.21593834	0.25582574	0.86680912	1.02692315
12	Madhya Pradesh	0.02139223	0.02675480	0.0126598	0.01583333
13	Maharashtra	0.03470219	0.04737844	0.03231024	0.04411275
14	Manipur	0.30897082	0.37951646	1.64333856	2.01855320
15	Meghalaya	0.23536475	0.30803839	1.25184626	1.63837921
16	Mizoram	0.90952530	1.17990499	4.83753772	6.27561970
17	Nagaland	1.95234590	2.38849108	10.3840397	12.7037869
18	Orissa	0.03974042	0.04718235	0.06958662	0.08261767
19	Punjab	0.03286379	0.02877173	0.01694975	0.01483924
20	Rajasthan	0.02198215	0.02714683	0.00932542	0.01151642
21	Sikkim	0.54560501	0.38967415	0.29019366	0.20725794
22	Tamil Nadu	0.00714929	0.00635202	0.00380253	0.00337848
23	Tripura	0.14054164	0.09062105	0.07475058	0.04819907
24	Uttar Pradesh	0.01032508	0.01249556	0.00516254	0.00624778
25	West Bengal	0.05056088	0.05689064	0.07367691	0.08290058
26	Andaman and Nicobar	0.47929718	0.58541523	1.12055468	1.36864935
27	Chandigarh	0.02103349	0.02456689	0.01285884	0.01501898
28	Dadra and N Haveli	0.12337896	0.02362821	0.28844918	0.05524068
29	Daman and Diu	21.6257568	20.3416528	50.5591183	47.5569959
30	Delhi	0.12475610	0.15425577	0.07626971	0.09430435
31	Lakshadweep	0.29717865	0.14061986	0.69477756	0.32875688
32	Pondicherry	NA	NA		
Average				2.76112345	2.90767034
Std Dev				9.05137426	8.70799976
CV				3.27814906	2.99483735

of variation are similar for both the allocation and lifting ratios and are much higher than the CV of per capita consumption. Bihar gets low levels when its allocation and lifting are considered with respect to the average. Nagaland and Goa recieve almost twice the average, even if Daman and Diu, which are outliers, are ignored. Surprisingly, lifting in Goa even exceeds this high ratio and so is the case with Nagaland. The CV of the distortion index of allocation exceeds that of the index of lifting (Tables 6.1 and 6.2).

Rural Rice

The average per capita consumption is 4.5 kg., while the average allocation and lifting ratios are 31 per cent and 25 per cent respectively. The deviation between the CVs of allocation and lifting as compared to per capita consumption is less than that in the case of urban rice and wheat. The CV of the allocation ratio is less than that of the lifting ratio, but when they are considered with respect to the consumption pattern, the converse is true. Uniformly, Bihar appears at the lowest end. Lakshadweep and Jammu and Kashmir receive more than the per capita consumption and the lifting is much less. With respect to the average, Jammu and Kashmir, Goa, Nagaland Daman and Diu, Delhi and Meghalaya receive a higher allocation. Rajasthan receives allocation equal to the average, but in terms of the distortion indices, the two indices are 41 and 25 respectively. A similar switching of CVs as in the previous case, is noticeable as between the ordinary ratios and the distortion indices of allocation and lifting (Tables 7.1 and 7.2).

Rural Wheat

The average consumption is 3.3 kg. The CV of the allocation ratio is higher than that of lifting and the same pattern is seen as for the distortion indices. In spite of eliminating outliers, the average allocation and lifting ratios are abnormally high This is due to the small states. Bihar continues to trail behind the others with 5.5 and 7.3 per cent allocation and lifting, compared to the average. The CV of allocation and lifting is more than two times that of the per capita consumption (Tables 5.1 and 5.2).

VII
Policy Implications

The following varieties of mismatches are illustrative of the irrationalities in the PDS system.

(1) Allocation in many cases is in excess of the absolute level of per capita real consumption per month (PCC).

TABLE 7.1: RURAL RICE DEMAND AND PDS – ALLOCATION/LIFTING

S No	State/UT	Per Capita Consumption (In Tonnes) (1)	Ratio of (1) to Average (2)	Ratio of Allocation to (1) (3)	Ratio of Lifting to (1) (4)
1	Andhra Pradesh	0.01237	1.47158543	0.18557514	0.16632506
2	Arunachal Pradesh	0.01357	1.61434230	0.73137721	0.63690667
3	Assam	0.01248	1.48467148	0.13478636	0.12801993
4	Bihar	0.00877	1.04331481	0.01815391	0.00883750
5	Goa	0.00861	1.02428056	0.44480109	0.40293551
6	Gujarat	0.0021	0.24982452	0.31520929	0.27709182
7	Haryana	0.00091	0.10825729	0.20543280	0.09915470
8	Himachal Pradesh	0.00458	0.54485539	0.27751250	0.23646856
9	Jammu and Kashmir	0.00458	0.54485539	1.01927518	0.53777159
10	Karnataka	0.00495	0.58887210	0.24441863	0.22562597
11	Kerala	0.00918	1.09209007	0.73880442	0.72659909
12	Madhya Pradesh	0.00615	0.73162897	0.06984741	0.05063295
13	Maharashtra	0.00284	0.33785793	0.23784040	0.23242564
14	Manipur	0.01357	1.61434230	0.30439538	0.22262234
15	Meghalaya	0.01357	1.61434230	0.42721313	0.40253073
16	Mizoram	0.01357	1.61434230	0.89031444	0.81730865
17	Nagaland	0.01357	1.61434230	0.60163745	0.56322066
18	Orissa	0.01564	1.86059791	0.05653355	0.03938134
19	Punjab	0.00085	0.10111945	0.08926438	0.02433018
20	Rajasthan	0.0002	0.02379281	0.40019804	0.17705922
21	Sikkim	0.01357	1.61434230	0.83600934	0.52577937
22	Tamil Nadu	0.01001	1.19083025	0.12469814	0.12070943
23	Tripura	0.01357	1.61434230	0.42930330	0.33000487
24	Uttar Pradesh	0.00395	0.46990804	0.05964128	0.04833238
25	West Bengal	0.01362	1.62029051	0.07807252	0.05145298
26	Andaman and Nicobar	0.00861	1.02428056	0.87357764	0.73906214
27	Chandigarh	0.00458	0.54485539	0.07584238	0.04625468
28	Dadra and N Haveli	0.00861	1.02428056	0.46362812	0.08620221
29	Daman and Diu	0.00861	1.02428056	0.60182427	0.15879268
30	Delhi	0.00458	0.54485539	0.47898770	0.33162172
31	Lakshadweep	0.00861	1.02428056	1.12933706	0.86104151
32	Pondicherry	0.00861	1.02428056	0.30193979	0.05990868
Average		0.00840593		0.40142038	0.29170034
Std Dev		0.00457488		0.31083304	0.25222510
CV		0.54424448		0.77433297	0.86467194

TABLE 7.2: RURAL RICE DEMAND AND PDS - ALLOCATION/LIFTING

S No	State/UT	Ratio of (3) to Average (5)	Ratio of (4) to Average (6)	Ratio of (5) to (2) (7)	Ratio of (6) to (2) (8)
1	Andhra Pradesh	0.46229637	0.57019162	0.31414850	0.38746756
2	Arunachal Pradesh	1.82197366	2.18342823	1.12861668	1.35251874
3	Assam	0.33577365	0.43887488	0.22616024	0.29560403
4	Bihar	0.04522421	0.03029651	0.04334666	0.02903871
5	Goa	1.10806825	1.38133389	1.08180150	1.34858938
6	Guajrat	0.78523505	0.94991958	3.14314634	3.80234717
7	Haryana	0.51176486	0.33991977	4.72730138	3.13992492
8	Himachal Pradesh	0.69132652	0.81065589	1.26882569	1.48783676
9	Jammu and Kashmir	2.53917200	1.84357574	4.66026766	3.38360552
10	Karnataka	0.60888458	0.77348556	1.03398443	1.31350350
11	Kerala	1.84047600	2.49090966	1.68527856	2.28086466
12	Madhya Pradesh	0.17400070	0.17357870	0.23782642	0.23724962
13	Maharashtra	0.59249719	0.79679604	1.75368738	2.35837600
14	Manipur	0.75829595	0.76318860	0.46972438	0.47275513
15	Meghalaya	1.06425392	1.77994623	0.65924923	0.85480398
16	Mizoram	2.21791086	2.80187802	1.37387891	1.73561580
17	Nagaland	1.49877187	1.93081962	0.92841020	1.19604102
18	Orissa	0.14083381	0.13500619	0.07569277	0.07256065
19	Punjab	0.22237138	0.08340815	2.19909598	0.82484780
20	Rajasthan	0.99695517	0.60699021	41.9015273	25.5114954
21	Sikkim	2.08262847	1.80246428	1.29007860	1.11653165
22	Tamil Nadu	0.31064233	0.41381319	0.26086198	0.34749973
23	Tripura	1.06946088	1.13131483	0.66247466	0.70078993
24	Uttar Pradesh	0.14857565	0.16569192	0.31618027	0.35260501
25	West Bengal	0.19449072	0.17638989	0.12003448	0.10886312
26	Andaman and Nicobar	2.17621690	2.53363520	2.12462969	2.47357539
27	Chaadigarh	0.18893510	0.15856919	0.34676191	0.29102986
28	Dadra and N Haveli	1.15496931	0.29551637	1.12759077	0.28851116
29	Daman and Dia	1.49923727	0.54436928	1.46369786	0.53146501
30	Delhi	1.19323238	1.13685768	2.18999828	2.08653101
31	Lakshadweep	2.81335314	2.95180196	2.74666262	2.88182951
32	Pondicherry	0.75217869	0.20537753	0.73434830	0.20050906
Average				2.57172780	1.98327459
Std Dev				7.16054402	4.35432632
CV				2.78433199	2.19552367

TABLE 8 1 URBAN RICE DEMAND AND PDS – ALLOCATION/LIFTING

S No	State/UT	Per Capita Consumption (In Tonnes) (1)	Ratio of (1) to Average (2)	Ratio of Allocation to (1) (3)	Ratio of Lifting to (1) (4)
1	Andhra Pradesh	0 01036	1 41302272	0 22157959	0 19859469
2	Arunachal Pradesh	0 01324	1 80583212	0 74960640	0 65278123
3	Assam	0 01079	1 47167134	0 15589748	0 14807125
4	Bihar	0 00706	0 96292861	0 02255097	0 01097803
5	Goa	0 00759	1 03521645	0 50457673	0 45708494
6	Gujarat	0 00218	0 29733489	0 30364197	0 26692332
7	Haryana	0 00098	0 13366431	0 19075903	0 09207222
8	Himachal Pradesh	0 00249	0 33961646	0 51044468	0 43495021
9	Jammu and Kashmir	0 00249	0 33961646	1 87481138	0 98915418
10	Karnataka	0 00611	0 83335606	0 19801509	0 18279027
11	Kerala	0 00873	1 19070351	0 77688713	0 76405265
12	Madhya Pradesh	0 00377	0 51419842	0 11394206	0 08259753
13	Maharashtra	0 00336	0 45827763	0 20103176	0 19645500
14	Manipur	0 01324	1 80583212	0 31198228	0 22817109
15	Meghalaya	0 01324	1 80583212	0 43786119	0 41256359
16	Mizoram	0 01324	1 80583212	0 91150506	0 83767964
17	Nagaland	0 01324	1 80583212	0 61663295	0 57725864
18	Orissa	0 01121	1 52895605	0 07857464	0 05494418
19	Punjab	0 00098	0 13366431	0 07742319	0 02110271
20	Rajasthan	0 00056	0 07637960	0 14292787	0 06323543
21	Sikkim	0 01324	1 80583212	0 85684643	0 53888414
22	Tamil Nadu	0 00911	1 24253252	0 13701738	0 13263462
23	Tripura	0 01324	1 80583212	0 44000346	0 33823007
24	Uttar Pradesh	0 00258	0 35189175	0 09131126	0 07399725
25	West Bengal	0 00866	1 18115605	0 12278843	0 08092259
26	Andaman and Nicobar	0 00759	1 03521645	0 99097542	0 83838275
27	Chandigarh	0 00249	0 33961646	0 13950125	0 08507889
28	Dadra and N Haveli	0 00759	1 03521645	0 52593388	0 09778670
29	Daman and Diu	0 00759	1 03521645	0 68270184	0 18013241
30	Delhi	0 00249	0 33961646	0 88107959	0 60997089
31	Lakshadweep	0 00759	1 03521645	1 28110568	0 97675460
32	Pondicherry	0 00759	1 03521645	0 34251668	0 06795966
Average		0 00733187		0 46512759	0 33413110
Std Dev		0 00428393		0 40858857	0 29663875
CV 0 58428930			0 87787784	0 88779149	

TABLE 8 2 URBAN RICE DEMAND AND PDS ALLOCATION/LIFTING

S No	State/UT	Ratio of (3) to Average (5)	Ratio of (4) to Average (6)	Ratio of (5) to (2) (7)	Ratio of (6) to (2) (8)
1	Andhra Pradesh	0 47587308	0 59436161	0 33677666	0 42063131
2	Arunachal Pradesh	1 60988430	1 95366798	0 89149167	1 08186578
3	Assam	0 33481158	0 44315315	0 22750431	0 30112236
4	Bihar	0 04843135	0 03285546	0 05029589	0 03412035
5	Goa	1 08364890	1 36798085	1 04678485	1 32144427
6	Gujarat	0 65211349	0 79885805	2 19319528	2 68672821
7	Haryana	0 40968162	0 27555717	3 06500384	2 06156134
8	Himachal Pradesh	1 09625115	1 30173520	3 22790931	3 83295670
9	Jammu and Kashmir	4 02641894	2 96037747	11 8557824	8 71682552
10	Karnataka	0 42526503	0 54706153	0 51030412	0 65645593
11	Kerala	1 66847347	2 28668525	1 40125015	1 92044890
12	Madhya Pradesh	0 24470648	0 24720097	0 47589893	0 48075016
13	Maharashtra	0 43174376	0 58795786	0 94210086	1 28297306
14	Manipur	0 67002546	0 68287893	0 37103419	0 37815194
15	Meghalaya	0 94036798	1 23473569	0 52073942	0 68374888
16	Mizoram	1 95973189	2 50703884	1 08522373	1 38830116
17	Nagaland	1 32430527	1 72764115	0 73334904	0 95670086
18	Orissa	0 16939429	0 16443899	0 11079082	0 10754984
19	Punjab	0 16627710	0 06315698	1 24399027	0 47250443
20	Rajasthan	0 30695754	0 18925337	4 01884161	2 47779983
21	Sikkim	1 84019723	1 61279253	1 01903006	0 89310213
22	Tamil Nadu	0 29426594	0 39695384	0 23682595	0 31947159
23	Tripura	0 94496881	1 01226756	0 52328718	0 56055463
24	Uttar Pradesh	0 19610368	0 22146174	0 55728410	0 62934621
25	West Bengal	0 26370528	0 24218814	0 22326032	0 20504331
26	Andaman and Nicobar	2 12825795	2 50914312	2 05585792	2 42378597
27	Chandigarh	0 29959840	0 25462727	0 88216690	0 74974949
28	Dadra and N Haveli	1 12951637	0 29265968	1 09109198	0 28270385
29	Daman and Diu	1 46619743	0 53910699	1 41631967	0 52076741
30	Delhi	1 89213392	1 82554359	5 57138455	5 37530945
31	Lakshadweep	2 75135313	2 92326756	2 65775637	2 82382254
32	Pondicherry	0 73560235	0 20339220	0 71057830	0 19647311
Average				1 60165971	1 44508658
Std Dev				2 21404294	1 76488305
CV				1 38234290	1 22129917

(2) Allocation as a ratio of the PCC, in certain states goes down to 2 2 per cent

(3) Similar incongruencies exist in respect of lifting

(4) The gap between allocation and lifting is glaring in many cases This also points out towards misallocation

(5) There are differences between the allocation to consumption ratio as between urban and rural areas

There is no doubt that the quantitative interventions in the real consumption and demand patterns caused due to allocation and lifting are significant To say the least a thorough look into the pattern of allocation is a must Even though there may be instances where lifting appears to be a greater source of distortion it should be remembered that lifting is circumscribed by allocation A correction in the policy of allocation is imperative and lifting would follow suit A study towards this end would be worthwhile and is capable of yielding concrete criteria for overhauling the allocation pattern so as to make PDS rational and viable complement of market demand while retaining the variations in tastes and socio cultural patterns in consumption

The following formula can form the basis for allocation

F_s^t = Food Surplus (less emergency stock wastage and open sale stock)

$F_t^d = \Sigma_N$

$F_d^t = \sum_i^N F_d^s$ = Total food demand over N states

F_d^s = Pop(s) * PCC (s)= Food demand in s th state Pop(s) = Population of s th state

PCC (s) = Per capita real consumption of s th state in physical units

F_s^t / F_d^t = ARAR = Adjustable Rationing Allocation Ratio

Allocation to each state = ARAR* F_d^s

The ARAR can be adjusted according to the food surplus every cropping season The sub-allocation can be done at the state level on a *pro rata* basis

VIII
Conclusions

In this paper we have examined the rationale for the current allocation pattern of rice and wheat through the PDS in India and found it to be wanting in at least one important respect – the allocation pattern appears to ignore the structure of consumption demand in the country An alternative formulation is therefore suggested in the paper

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Interpreting Amartya Sen's Work

Ashima Goyal

THE *EPW* (November 7 and December 5 and 12, 1998) has carried a lively series of articles interpreting the huge corpus of Sen's work. An economist writing about another reveals more about his own priorities, but taken together all the perspectives flesh out a fuller picture. Even so, the clear logical progression evident in the work has not been remarked upon. In spite of its large size, it is almost as if Sen had followed a plan laid down in the beginning. But more probably, outcomes were the logical consequence of initial choices.

For Abhijit Banerjee Sen's major contribution is in applying rigorous micro-economic tools to the analysis of development and therefore bringing development into the fold, as it were, and opening the way for others to follow. But after his initial work on choice of techniques and growth, Sen began to explore the relationship between social welfare and individual preferences. He concluded that the way through a thicket of impossibility theorems that led to inconsistencies in aggregation was to abandon standard micro-economic maximisation. Therefore after pointing a particular direction to others, he himself withdrew from it. He wrote extensively on the necessity of using non-utility information, on changing preferences by the development of human capabilities. In the period of his intense involvement with social welfare and philosophy, he had continued to write on development – major spin-offs were on the analysis of inequality and development indices. But with the concept of capability the circle was complete and led him back full-time to development: education, gender, nutrition and public action as means of enhancing human capabilities.

Has Sen indeed betrayed Abhijit Banerjee? Modern economic theory is firmly based on individual decisions, and his careful foray into the dilemmas that arise in trying to derive social welfare from the individual has left Sen firmly on the side of the individual. In that sense he is still very much in the modern economic tradition. In returning to the theme after the debate that followed his paper on the 'Impossibility of the Paretan Liberal', he concludes that the way to resolve the impossibility is to weaken the requirement of the Pareto principle rather than disregard individual preferences. He had discovered that a liberal who wanted both to guarantee freedom of choice in personal matters and ensure that if every individual preferred an alternative society should prefer that one would be led into contradictions. Most commentators had felt that since the unanimity of preferences was such a basic requirement for social welfare, a way must be found to salvage the Pareto axiom. But Sen wants to go beyond preferences to developing individual capabilities; and in this way he both deeply respects the individual and betrays Abhijit Banerjee, because modern micro-economics takes preferences and technology as a datum that must be respected.

Sen made a revealing remark in his speech at the UN in memory of Mahbub ul Haq. Recollecting their days as students and the seeming irrelevance of the analysis they learnt to the burning issues of poverty that concerned them, he remembers telling Haq that we have to master the pricing of toothpaste, otherwise no one will listen to us. Sen has indeed mastered the art of "precisely conveying the imprecise science of economics", and pushing his own very different agenda in a language modern and logical enough to command respect. Only when the emotional heart of the reformer combines with a hard analytical brain is it possible to build a bridge between the east and west. It will not be irreverent to draw an analogy with the success of Shekar Kapoor. The emotional heart of Indian films combined with the skills and packaging of the west has made an unbeatable combination. This is not the same as saying that the east is emotional and the west rational; the east has an ancient very rigorous intellectual tradition that can easily don the mantle of modern sicentific language or standards. But the universality or staying power comes fr[illegible] the human concerns.

Kaushik Basu (*EPW*, December 12, 1998) makes the point that Sen's position is often ambiguous, precisely to make it possible for readers to find whatever they were looking for. But such a position need not please all – it can also displease all. One can fall between two stools. Although a good communicator is always sensitive to the concerns of his audience, in a fundamental way a middle of the road position is a very Indian and a very intellectual way of analysing the world. It can come closest to the truth because it can recognise shades of grey. Nehru was attacked for sitting on the fence, and called an intellectual because he could see two sides of a coin. India's policy of non-alignment displeased many. Indians have always been good at forging their own creative synthesis, and it is works if it anticipates trends of the time. Both the left and right have claimed Sen – but he says that he had read the writings of both and agrees with neither. To find a new path between fashionable extremes is a risky strategy, but the deep respect for intellectual traditions and for the individual are what have given it resonance and made it so successful. Concern for the flowering of individual capabilities is a persistent theme in Indian philosophy.

Bagchi (*EPW*, December 5, 1998) remarks that in his career Sen has often returned to themes he has touched upon at one stage. The one topic with which he has not done so is his early work on growth. There is a complete returning to early roots in the overall pattern of his work, but one strand remains for completion. There is time for Sen to work out the links between the development of human capabilities and growth. The whole of India cannot afford to be a Kerala.

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GENDER INEQUITIES: FOCUS ON TAMIL NADU

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Gender Inequities: Focus on Tamil Nadu

Policies to increase women's wage employment often take the easy way out by facilitating the setting up of industries that are seen to be compatible with women's household responsibilities rather than address the constraints that force women to engage in so-called women's work. The interplay of patriarchal structures and capitalist relations of production in Ambattur in Chennai, one of Tamil Nadu's oldest industrial belts. **WS-2** The construction of home-workers as housewives and home-work as a practice that allows a woman to care for children and perform her household tasks while earning much-needed income conceals the reality that women not only put in long hours of work to fulfil production targets set by employers, but have little idea how their wage levels are arrived at. The beedi industry in Tirunelveli district. **WS-12** Employment generation does not necessarily translate into a better deal for women. Leather tanning industry in Dindigul. **WS-21** Wife-battering is shrouded in patriarchal myths and stereotypes which need to be cut through to understand domestic violence. Rising curve of violence against women in Chennai city. **WS-28** The rapid fertility decline in Tamil Nadu in the 1980s is often attributed to female autonomy and 'agency'. Study in five districts of Tamil Nadu of the extent of female autonomy and gender power dynamics within married couples. **WS-34**

Fiscal Deficits: Expected and Actual

Fiscal deficits that are expected to be reversed at some unknown date in the future cause a real appreciation of the exchange rate along with an expectation of depreciation, a trade deficit and high domestic interest rates. The expectation of depreciation will have a positive impact on investment provided a time-frame within which the deficit can credibly be reduced is charted and acted on. **963**

Patent Lies and Latent Danger

What should India's position be on the TRIPs review in 1999? It is possible to take a mini-max approach, striving to undo as much of the damage as possible, while keeping an eye on the minimum that can be achieved even within the WTO framework should a drastic revision of the Marakesh agreement become politically feasible. **979**

New Patterns of Urban Growth

Examination of the size and type of investment in the larger cities indicates that there are emerging urban cores of high investment even as other cities and the regions surrounding them are being virtually bypassed. **969**

Beyond Lahore

As the US and USSR did decades ago, India and Pakistan have started to turn to 'transparency' measures as a way to reassure themselves, and the international community, about the nuclear dangers they have created. **938**

Attacks on Tribals

Through the Narmada dam agitation the tribals have rediscovered their identity and found a new strength. The attacks on Christians in Gujarat which have targeted the tribals are the response of the business class to this challenge from the downtrodden. **949**

Dissent on 'Fire'

Most of the defenders of the film 'Fire' have followed the lead of the protesters and pitted their own version of Hindu culture against that of their adversaries. Hardly any considered the issue as a human condition. **955**

Enterprise and Tradition

Two contradictory forces – a spirit of enterprise and a tradition-bound status-consciousness – led the Patels of central Gujarat first to Africa and then to the UK where they are today successful businessmen and professionals. **953**

Double Standards

One of the measures that the US justice department is contemplating, in its anti-trust case against Microsoft, is compulsorily licensing Microsoft products to others to break its monopoly. This is in sharp contrast to the strenuous US opposition to compulsory licensing under the WTO framework. **946**

Urdu and Its Future in India

I HAVE just read Syed Shahabuddin's response (March 6-13, 1999) to my article on Urdu in India since Independence (January 2-9, 1999). I was gratified that he responded so fully but there are things in his letter about which I need to give clarification. There are points on which we are clearly in disagreement and I shall return to these below, but there are others on which he is mistaken in thinking that he and I disagree and yet others on which it is not clear whether we disagree or not.

The most important point of the first kind is that about 'immigrant communities'. I never said that the Urdu-speaking community is an immigrant community. Of course it isn't, and it would never have entered my head to suggest that it was. I merely drew a parallel between the problems of language maintenance faced both by immigrant communities in Britain and the Urdu community in India. I drew attention to the measures which the former have taken to meet this problem and said that the Urdu community should take similar measures but has not done so. I do not for a moment accept Shahabuddin's assertion that the Urdu community is too poor to undertake this. The problem is not money but the absence of the will to act. I nowhere suggest that the Urdu community sets up a parallel system of schooling to replace the state system and the teaching that goes on in the madrassas. With regard to the state system, the Urdu-speaking community should not only continue to take advantage of such provision as already exists, but press for a great deal more. Nor do I suggest that Urdu should be "expelled from the madrassa milieu"; all that my article suggested was that Urdu speakers should not demand more of the madrassas than they are ever likely to be willing to give. It is not clear whether Shahabuddin thinks that I am advocating the abandonment of the Urdu script and the adoption of the Devanagari script instead. I was simply saying that Urdu speakers should welcome and actively support those who are presenting Urdu literature in Devanagari. Every community is entitled to write its language in the script of its choice, and this is the fundamental fact that should be recognised by all who are interested in this question of scripts. It would be perfectly easy to prove on purely linguistic grounds that the Roman-based script proposed many years ago by J B Firth is more suited to the accurate representation of Urdu sounds than any other. But I have never advocated, and never will advocate, that the Urdu-speaking community should adopt this script. The Progressive Writers' Association very quickly realised that the proposal for the adoption of the Roman script, which it had made in its first manifesto, must be dropped. It is quite pointless to suggest the adoption of the Roman script to a community when you know perfectly well that 99 per cent of the members of that community will reject it. So my stand is that Urdu speakers should continue to use their traditional script but they should also welcome the initiatives of others who wish to use the Devanagari and the Roman scripts to enable readers who do not know the Urdu script to gain access to Urdu literature.

There are a couple of minor mistakes which you made in publishing my article. You say that I am a lecturer in Urdu at the School of Oriental and African Studies. In fact I was made a Reader in 1964 and retired from SOAS in 1981. Later on you speak of my correspondence "with the Chancellor of Jamia Millia". You should have said "the former Chancellor".

RALPH RUSSELL

London

Documenting People's Projects

FOR decades we have lived in a state, where the government maintained a paternalistic attitude and took responsibility for everything from providing basic needs like water, roads, health services, education, public parks, protection and rejuvenation of natural resources, etc, in exchange for the taxes it collected. At the same time, it looked at all kinds of private and community initiatives in these areas with scant respect or even suspicion. Over the past couple of years there has been a gradual shift in its thinking. It has almost accepted that it is ill-equipped and inadequate to the task that it had assumed for itself. So, while the government will continue to collect more and more taxes, it has mercifully accepted the fact that people themselves have a right to create and maintain community assets and tak measures that would make their lives les difficult and little more pleasant.

Fortunately, despite its sincere efforts the state has been unable to kill communit initiative across the country, specially i rural and tribal areas. There are hundred of instances where people, residents asso ciations, gram panchayats, youth clubs mahila mandals (women's organisations) community organisations, traders' asso ciations (the civil society in short) go together to raise resources, use locall available skills and contributed voluntar labour to achieve the desired goals be i in the area of protection of environment creation or rejuvenation of water bodies protection of historical sites, setting up o educational institutions, provision fo health services, construction of link road and bridges, creation and maintenance o public parks, etc. At the same time, thes very people's organisations raised thei voices in protest, when they found th policies, projects or decisions of th government anti-people or contrary to th local ethos. Many such ideas and exampl can not only inspire but would be wortl emulating and replicating.

We are in the process of researching an documenting such instances to stimulat and induce similar activities in other area and would welcome the help and suppor of readers of your publication. We ar particularly interested in independen initiatives that have been launched an sustained without any financial suppor either from the government or other dono agencies. Since the very idea behind thi exercise is to promote voluntary action while it may not be possible to compensat contributors financially, their contribution will be appropriately and gratefull acknowledged.

BEENA AND ARUN SHA

New Delhi - 17

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Structural Reform of Money Market

THE Reserve Bank of India's monetary policy statement for the current fiscal year is a down-to-earth, no-nonsense document. Except for the 0.5 per cent cut (from 10.5 to 10 per cent) in the cash reserve ratio (CRR), which a purist may find hard to accept, especially at a time when the rate of growth of money supply (M_3) has consistently been well above the rate of growth of the real economy, there is little attempt to play to the gallery. The document makes a frank admission of the dilemmas of a central bank in trying to reconcile multiple and often conflicting goals. And then gets down to the nitty-gritty of much-needed structural reform in the money market, which is critical to improving the efficacy of the central bank's signalling mechanism.

The policy stance continues to be easy, driven by the desire to ensure adequate liquidity along with stable medium- and long-term interest rates, with a "preference for softening to the extent circumstances permit". In an uncertain macro-economic scenario, there is always the danger that adjustments in liquidity, either to dampen demand or to spur growth, could overshoot. At the same time, given the lagged impact of any change in money supply, corrective action may often prove to be a case of too little, too late. Consequently, monetary authorities must constantly be on guard – ready to reverse their policy stance in case the actual outcome is very different from that anticipated. The policy makes it quite clear, therefore, that while the RBI is going along with its easy money policy for the moment, it will not hesitate to alter its stance, should the situation so warrant.

Beyond that, the macro-economic projections made by the RBI are more or less in tandem with those made by the finance minister at the time of the budget. GDP growth for 1999-2000 has been pegged at 6-7 per cent, inflation at 5 per cent and M_3 growth 0.5 per cent higher, at 15.5-16 per cent as against last fiscal year's target range of 15-15.5 per cent. This target has, of course, not been of much more than academic interest, since actual M_3 growth has been well above the target in the past three years. No doubt, the fact that despite this higher-than-projected rate of growth of M_3, the annual rate of inflation has been within bounds has lent courage to the RBI to continue with its easy money stance for the present.

Ideally, as the policy points out, M_3 growth should have been pegged in the range of 15-15.5 per cent, as in the past. But this may jeopardise the government's ambitious borrowing programme for the year. With gross borrowing in 1999-2000 pegged at Rs 84,000 crore, according to the budget estimates, a more restrictive policy could lead to private investment being crowded out by government borrowing. Clearly, the experience of the last fiscal year when government borrowing overshot the target by almost Rs 15,000 crore (gross borrowing was Rs 94,000 crore as against a target of Rs 79,300 crore) has played no small part in shaping the bank's final stance. But with every rupee of fresh government borrowing now bringing just 67 paise into the government's coffers, down from 89 paise in 1991-92, the position is clearly not sustainable over the long run. Ultimately, as the policy warns (not for the first time) a stable interest rate regime can only be ensured if government borrowing is kept "within reasonable limits".

A considerable part of the policy statement is devoted to structural reform of the money market. The aim, as the RBI has set it out, is to improve the mechanism for transmission of signals from the central bank to the rest of the system. The underlying rationale is simple. While liberalisation has made it impossible for the RBI to directly influence either credit or interest rates, it has not proceeded far enough to allow the RBI's monetary signals to be transmitted effectively to the rest of the system. The result is that the central bank's signals are often like water off a duck's back. Witness the way the bulk of the banking sector, barring the public sector banks, shrugged off the RBI's post-budget package.

In the pre-reform period, things were different. The RBI was firmly in the driver's seat. It could, and did, dictate interest rates. But today interest rates have been all but completely deregulated. The only way the RBI can influence rates is by giving signals – signals that the market should, ideally speaking, then pick up and transmit. In other words, the RBI, like other central banks, now has to influence monetary conditions by influencing the level of liquidity in the system through indirect, market-based instruments like open-market operations and repo/discount windows.

However, the success of these market-based instruments depends on the existence of vibrant, liquid and efficient money markets, well-integrated with other segments of the market. Unfortunately, our markets are narrow and fragmented. The RBI on its part is willing to absorb liquidity through its repo window but is not so willing to

inject liquidity through reverse repos. This is because, despite the shift from the earlier system of automatic monetisation through ad hoc Treasury Bills (ad hocs) to ways and means advances, the bank has very little control over a key component of reserve money - net RBI credit to government. Consequently, it is always apprehensive of injecting liquidity into the system. To that extent, its ability to influence interest rates is limited - it can push rates up but cannot push them down as easily.

It is this vacuum that the RBI's latest policy seeks to fill, both by widening and deepening the repo market and by introducing an interim liquidity adjustment facility (ILAF). Repos facilitate riskless deployment and raising of short-term liquidity. An efficient repo market is, therefore, critical to the development of a vibrant money market. Repos have now been permitted in PSU bonds and in other bonds of corporates and all-India financial institutions held in demat form in depositories and transactions done in authorised stock exchanges.

Further, the number of participants has been increased by allowing non-bank entities which are currently permitted to undertake reverse-repos to also borrow through repos. Here the RBI seems to have suddenly got cold feet - the relaxation is only for such non-bank entities as are already permitted to lend through reverse repos, not for new entities that may wish to do so. Nonetheless, it is a good beginning and should go a long way to improve the efficacy of the transmission mechanism so that monetary signals are promptly picked up and transmitted throughout the system. That itself will be more than half the battle won.

POLITICS

Sham Contest

A correspondent writes:

TO fill the vacuum of their valueless politics, national leaders are offering communalism as the most important issue today. But whichever party forms the next government, it will have no effect on the problem of communalism. For the communal problem is not about the power the BJP holds but about the reasons why people vote for the BJP. This is why even another election will not take us any nearer a solution to the problem.

The parties that present themselves as secular are not necessarily seen as secular by the voters. At election time, communalism is rarely the deciding factor because it would only be a case of choosing the lesser evil. Other issues then decide the voter's choice. This means that the representatives of the people make the issue of secularism the deciding factor without the voter's say-so.

Why do some people vote for the BJP? Of all BJP voters, there must be some that believe in the hindutva ideology. Some others may not be in favour of hindutva but may also consider it not important enough a factor to be the sole basis of rejecting the BJP. There must also be some that pay no attention to any issue but vote for the candidate with the biggest banners and the loudest speakers. BJP's rathyatras would certainly impress such voters. Those who believe in secularism as a value will certainly not vote for the BJP, but then some of them may not vote at all so that their vote does not count against the BJP. They may not find the other parties good enough to vote for solely in order to oppose the BJP.

Religion is important to a large majority of Indians in their private lives. The relation between the state and religion has not been clearly defined. Secularism is a separation between the private and the public. In this sense, secularism is a negative value: it is the absence of government interference in affairs that are best left in the private domain. But political and social leaders have equated secularism and good communal relations making the latter something that the government would provide for the greater good of the people. This is a contradiction in terms. A secular state cannot provide good communal relations.

The idea of the government staying out of anything it could possibly meddle in is anathema to some. Voters have been encouraged to believe that the government is a limitless bank account from which the largest, most vocal group can draw the most, no matter at whose cost. The numbers game inherent in a democracy has made the welfare state an auction house where the largest group can bid the highest. Unless the government interferes in every conceivable activity, there will be less to bid for and less to appropriate. Having learnt this lesson well, the voter will not attach great value to secularism defined as governmental non-interference in religious matters. The same holds for economic reforms. Many Indians do not like the recent economic policy changes. Those who accept them do so for the obvious practical benefits of these reforms. No such practical value attaches to secularism.

Politicians and social thinkers have promoted secularism as 'love thy neighbour' for a long time. Can we now go back to the dictionary definition of secularism as governmental non-interference in religious matters? It goes without saying that physical violence is always in the public domain and must be dealt with by the government. But can we leave the choice of loving one's neighbour to the citizen? This will not immediately solve the problem of communal hatred. But this narrower definition will leave a smaller gray area to force some of the undecided voters to make up their minds. This will separate the hardcore hindutva believers from the secular citizenry. That will be no small gain.

PHARMACEUTICALS

Ignoring Institutions

IT is of course commendable that the National Human Rights Commission (NHRC) has been investigating a complaint by the Himachal Pradesh State Human Rights Commission about the supply of fungally contaminated large-size intravenous fluid packs to the Indus Hospital in Shimla. It is even more satisfactory that the commission set up an expert panel to go into the matter which undertook its job seriously and submitted its report within the allotted time. On the basis of this report the NHRC has last month recommended that the central government revamp the entire system of licensing new product approvals, certification and quality control checks, etc. No doubt the authority of the NHRC is such that its directive will be taken seriously. The point, however, is why, given the numerous authorities involved with drug licensing and quality control, it was thought necessary to move the NHRC.

Over the decades the drug controller's office has come under severe criticism, a case in point being the J J Hospital tragedy in Mumbai, involving contaminated parenterals which was so ably and thoroughly investigated by Justice Lentin. While wide-ranging recommendations were made, few, including those of an urgent nature such as the transfer/removal of the officials involved, were accepted or carried out. The commission has also pointed to the inadequacy of personnel and laboratory facilities. It had made specific recommendations regarding the indenting and purchase of such material in public hospitals and the manner in which they were distributed and the records maintained. Given this it is rather surprising that the NHRC has not sought to draw attention to the report and ask why its recommendations have been ignored.

Moreover, at various points the drug consumer movement has raised questions about the functioning of the drug control authority in regard to the licensing of

drugs. For instance, the ease with which drugs are licensed has been called into question, also, the fact that the licensing authority appears to be lax on on-site requirements at the manufacturers' end, particularly for small firms, has been pointed out often enough. If little has been done on this count, it is because the drug control is really nobody's business. Within the chemicals sector, under which falls pharmaceuticals, quality control is the business of the individual industry. Apart from the banning of hazardous chemicals, the ministry has no special machinery to inspect the industry other than what applies to all industries as a whole. The drug control authority is a special case – in that it exists because the products, pharmaceuticals, affect the health of people. Thus the health ministry has jurisdiction over the authority which deals with products which come under the chemicals ministry. This dual authority structure allows for a great deal of laxity and the shifting of responsibility. Thus the drug authority has never had adequate funds for carrying out the tasks it is supposed to. This fact plus the extraordinary degree of corruption, as brought out by the Lentin investigations, make for one of the most loosely controlled drug control regimes among countries which manufacture such a range of pharmaceuticals as India does.

There is also something a little disturbing about the fact that the NHRC should have been approached on this count. Most certainly, it is a human rights issue, but then this is one sector where there exists numerous authorities set up precisely to process such matters. Overlooking and ignoring such institutions in the very first instance only allows the state to sideline them – as in fact has been happening. The newly constituted National Pharmaceutical Pricing Authority, which came under heavy criticism from the industry lobby when it was set up two years ago, is now facing a challenge with the state issuing guidelines that the price-fixing undertaken by the authority will be subject to the approval of the ministry. This trend should be resisted, if democratically constituted institutions, which after all have come about as a result of popular demand, are to survive. It is imperative that the tasks of control and monitoring are given a base independent of the political authority, with adequate safeguards. By not moving existing institutions and not seeking out the trajectories of earlier recommendations, however inadequate they may be, people's movements are allowing for a reversal of the hard won gains of the drug and health movements. It is after all in their usage that democratic institutions come into their own and become stronger.

BIHAR

Populist Slogans and Manipulative Politics

THE political shenanigans in Delhi have effectively overshadowed the less eye-catching rogueries that are taking place in another part of the country, Bihar, which attracts national attention only when massacres happen there. But under the rule of Rabri Devi, there are other less obtrusive developments taking place there which are dragging down the state into a sickening political, economic and social morass.

Apart from the Rs 950 crore fodder scam, in which the chief minister's husband Laloo Yadav (who is the effective ruler of Bihar) has been already charge-sheeted, he is facing yet another probe in connection with the bitumen scam. A senior minister of the Bihar government is reported to have told the CBI that Laloo Yadav had been the main beneficiary of that scam. But while one after another, these allegations against him keep on accumulating, Laloo Yadav continues to rule the roost in Bihar by virtue of his manipulative powers. The latest instance is his success in swinging a Rs 500 crore package for rural development from the centre and he is doing his best to publicise it to boost his image as the saviour of the state's poor. He can get away with anything because very few among the poor who are supposed to be the would-be beneficiaries of this package would ask him about the fate of similar central funds that he had received in the past. They do not know that while Laloo Yadav was bragging about his achievement in getting all that money from the centre for rural development, his government was at the same time surrendering to the centre Rs 450 crore of central funds that it had received last year for the same purpose of rural development. His government was returning the money since it did not spend it on the programmes for the rural poor as it had promised to do. The administration under Laloo Yadav has been notorious for the non-utilisation of central funds. The noises that Laloo Yadav is making now about utilising the latest central allocation of Rs 500 crore for Bihar's rural poor are quite likely to evaporate into thin air as have so many promises of his in the past. Yet the people of Bihar seem to have an endless appetite for promises handed out by Laloo Yadav, and an equally undying faith in their fulfilment in some distant future.

Another typical instance of how Laloo Yadav can make his false promises sound true is his latest visit to Jehanabad, in the wake of the recent massacre of dalit labourers, where to the applause of his supporters gathered there, he announced the distribution of 393 acres among the landless. Yet, according to the district administration, in Jehanabad Laloo Yadav was already supposed to have distributed 451 acres (out of the 605 acres vested with the government as surplus land) in 1991, which left the government with only 154 acres. Where is the rest of the land to come from? But since no one asks him the question, Laloo Yadav can get away with any populist gimmick.

Both the Bihar chief minister and her husband (for whom she rules as a proxy) have had the privilege of treating Bihar as their fiefdom for more than a decade now. They seem to be lucky enough to continue in that role. Soon after having got a reprieve following the centre's failure to ratify president's rule, Rabri Devi has had another stroke of good luck when the Supreme Court recently extended by another three months the bail to her husband Laloo Yadav in the fodder scam case. Laloo Yadav will thus be free to continue to rule Bihar by the same old cunning mixture of populist slogans to woo the rural poor dalits on the one hand and manipulative measures to maintain the loyalty of his own OBC middle class farmers and win the support of the bhumihar and rajput landlords on the other. It is the maintenance of this precarious balance of socio-economic forces in Bihar which is necessary for Laloo Yadav to survive and continue to rule.

BoP data for nine months April-December 1999 show a trade deficit of $11.30 billion. With net invisible receipts of $7.3 billion, the current account deficit stood at $4.2 billion. Imports of gold and silver also aggregated $4.2 billion during the period. The year has ended with a reserve build-up of $3.56 billion. But for RIBs worth $4.2 billion reserves would have fallen by $650 million. The latest DGCI and S data for April-February place the trade deficit at $8.1 billion against $6.8 billion for the whole of 1997-98.

Macroeconomic Indicators

Index Numbers of Wholesale Prices (1981-82 = 100)	Weights	April 3, 1999	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1999-2000	Fiscal Year So Far: 1998-99	1998-99	1997-98	1996-97	1995-96
All Commodities	100.00	354.7	0.2	4.6	5.3	0.2	0.6	5.0	5.3	6.9	5.0
Primary Articles	32.30	381.8	0.3	8.3	5.9	0.5	1.4	9.3	5.5	7.0	5.4
Food Articles	17.39	443.0	0.9	10.6	4.7	0.9	1.9	11.7	4.0	9.6	9.8
Non-Food Articles	10.08	382.2	-1.0	6.6	8.3	-0.2	0.6	7.5	8.5	3.5	-1.9
Fuel, Power, Light and Lubricants	10.66	379.5	*	-0.9	9.7	*	-0.3	-1.2	11.4	16.9	3.7
Manufactured Products	57.04	334.7	0.1	3.5	4.1	*	0.3	3.8	4.0	4.9	5.0
Food Products	10.14	340.6	-0.8	4.3	7.1	-0.4	0.2	4.9	5.5	14.1	-0.7
Food Index (computed)	27.53	405.3	0.3	8.6	5.5	0.5	1.3	9.5	4.5	11.1	6.3
All Commodities (Average Basis) (April 3, 1999)	100.00	354.7	–	6.9	4.8	4.6	0.1	6.9	4.8	6.4	7.8

Cost of Living Indices	Latest Month	Variation (Per Cent): Point-to-Point: Over Month	Over 12 Months: Latest	Over 12 Months: Previous	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	1997-98	1996-97	1995-96	1994-95
Industrial Workers (1982=100)	415.0[2]	-1.2	8.6	9.1	9.2	8.8	8.3	10.0	8.9	9.7
Urban Non-Man Emp (1984-85=100)	340.0[2]	-0.6	8.6	7.6	9.0	7.6	7.2	10.2	8.2	9.9
Agri Lab (1986-87=100) (Link factor 5.89)	297.0[2]	-0.7	8.8	3.8	9.2	4.2	3.8	10.5	7.2	11.1

Money and Banking (Rs crore)	March 26, 1999	Variations Over Month	Fiscal Year Variations: 1998-99	1997-98	1996-97	1995-96	1994-95	1993-94
Money Supply (M_3)	975200@	29694(3.1)	147991(17.9)	125361(17.9)	97841(16.2)	72581(13.7)	97019(22.3)	67582(18.4)
Currency with Public	170659	2640(1.6)	24655(16.9)	13917(10.5)	13829(11.7)	17577(17.5)	18380(22.3)	14028(20.5)
Deposit with Banks	800397@	26136(3.4)	122732(18.1)	111099(19.6)	84162(17.5)	55042(12.9)	77781(22.2)	52342(17.6)
Net Bank Credit to Govt	384085	-2735(-0.7)	53493(16.2)	41973(14.5)	30840(12.0)	35360(15.9)	18501(9.1)	27680(15.7)
Bank Credit to Comml Sector	483201	18072(3.9)	50463(11.7)	56431(15.0)	31659(9.2)	51925(17.7)	54949(23.1)	17639(8.0)
Net Foreign Exchange Assets	144402	3060(2.2)	17833(14.1)	21072(20.0)	23356(28.4)	3109(3.9)	24420(44.7)	30169(123.4)
Reserve Money (April 2)	258126	5726(2.3)	32818(14.5)	26417(13.2)	5527(2.8)	25176(14.9)	30610(22.1)	27893(-5.2)
Net RBI Credit to Centre	150245	-4289(-2.8)	14176(10.6)	12915(10.7)	1934(1.6)	19855(20.1)	2130(2.2)	260(0.3)
RBI Credit to Bks/Comm Sector	23692	-1323(-5.3)	10205(66.8)	2029(15.3)	-15557(-54.0)	8747(43.6)	8067(67.2)	-4109(-25.5)
Scheduled Commercial Banks (March 26)								
Deposits	717271@	22064(3.2)	111861(18.5)	99811(19.7)	71780(16.5)	46960(12.1)	71726(22.8)	46560(17.3)
Advances	366003	13956(4.0)	41925(12.9)	45677(16.4)	24386(9.6)	42455(20.1)	47144(28.7)	12436(8.2)
Non-Food Advances	349187	14476(4.3)	37594(12.1)	40790(15.1)	26580(10.9)	44938(22.5)	45776(29.8)	8272(5.7)
Investments (for SLR purposes)	254119	1550(0.6)	35414(16.2)	28192(14.8)	25731(15.6)	15529(10.4)	16731(12.6)	26866(25.4)
Commercial Investments	48059	611(1.3)	16147(50.6)	13428(72.6)	4412(29.4)	925(6.6)	na	na

@ Includes Rs 17,945 crore on account of proceeds from RIBs, since August 28, 1998; excluding them the 1998-99 fiscal year growth of money supply would be 15.7 per cent. Likewise, bank deposits without RIBs grew by 15.5 per cent against 19.7 per cent in 1997-98

Index Numbers of Industrial Production (1993-94=100)	Weights	February 1998	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Full Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
General Index	100.00	149.2	141.6(3.9)	136.3(6.9)	137.6(6.6)	129.0(5.5)	122.3(12.8)	108.4(8.4)
Mining and Quarrying	10.47	117.0	118.7(-1.7)	120.8(6.2)	122.4(5.9)	115.6(-2.0)	117.9(9.6)	107.6(7.6)
Manufacturing	79.36	155.3	145.3(4.3)	139.3(7.0)	140.5(6.7)	131.8(6.7)	123.5(13.8)	108.5(8.5)
Electricity	10.17	134.6	137.1(6.4)	128.8(6.5)	130.0(6.7)	121.9(3.9)	117.3(8.1)	108.5(8.5)

Capital Market	April 16, 1999	Month Ago	Year Ago	1999-2000 So Far: Trough	1999-2000 So Far: Peak	1998-99: Trough	1998-99: Peak	End of Fiscal Year: 1998-99	1997-98	1996-97
BSE Sensitive Index (1978-79=100)	3573(-13.6)	3744	4134(13.4)	3357	3686	2783	4281	3740(-3.9)	3893(15.8)	3361(-0.2)
BSE-100 (1983-84=100)	1547(-14.8)	1650	1817(15.7)	1459	1634	1242	1890	1651(-2.7)	1697(15.9)	1464(-5.5)
BSE-200 (1989-90=100)	354(-14.2)	378	412(17.7)	334	376	289	429	380(0.8)	377(14.9)	328(-5.0)
S and P CNX-50 (Nov 3, 1995=1000)	1044(-12.7)	1053	1197(17.9)	969	1063	812	1213	1078(-3.5)	1117(15.4)	968
Skindia GDR Index (Jan 2, 1995=1000)	669(-31.7)	631	979	581	655	515	1015	653(-30.5)	940(1.1)	930(-4.4)

Foreign Trade	February 1999	Fiscal Year So Far: 1998-99	Fiscal Year So Far: 1997-98	Fiscal Year Averages: 1997-98	1996-97	1995-96	1994-95
Exports: Rs crore	11969	126084(10.5)	114100(7.3)	126286(6.3)	118817(11.7)	106353(28.6)	82674(18.5)
US $ mn	2819	29950(-2.9)	30859(2.8)	33980(2.6)	33470(5.3)	31797(20.8)	26330(18.4)
Imports: Rs crore	13405	160283(16.4)	137651(10.6)	151554(9.1)	138920(13.2)	122678(36.3)	89971(23.1)
US $ mn	3157	38073(2.3)	37228(6.1)	40779(5.8)	39132(6.7)	36678(28.0)	28654(22.9)
Non-POL: US $ mn	2779	32794(8.8)	30136(14.4)	32562(11.9)	29096(-0.2)	29152(28.3)	22727(29.5)
Balance of Trade: Rs crore	-1436	-34199	-23552	-25268	-20102	-16325	-7297
US $ mn	-338	-8123	-6370	-6799	-5663	-4881	-2324

Foreign Exchange Reserves (excluding gold)	April 9, 1999	April 10, 1998	March 31, 1999	Variation Over: Month Ago	Year Ago	Fiscal Year So Far: 1999-2000	Fiscal Year So Far: 1998-99	1998-99	1997-98	1996-97	1995-96	1994-95
Rs crore	126705	104391	125446	8156	22314	1259	1880	22935	22137	21649	-7302	18402
US $ mn	29687	26262	29530	1738	3425	157	286	3554	3607	5243	-3690	5640

Notes (i) Superscript numeral denotes month to which figure relates, e g, superscript 2 stands for February; (ii) Figures in brackets are percentage variations over the specified or over the comparable period of the previous year   na: not available.   neg: negligible   * unchanged.

Balance of Payments

(In US $ million)

	1998-99 (Apr-Dec)	1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92	1990-91	1989-90
1 Exports	24875	34849	34133	32311	26855	22683	18869	18266	18477	16955
2 Imports	36205	51126	48948	43670	35904	26739	24316	21064	27915	24411
A of which: POL	9103	8217	10036	7526	5928	5753	6100	5364	6028	3768
Gold and Silver (incl baggage)	4210*	5737	3710	2810	2813	1670	1076	..	..	..
3 Trade balance	-11330	-16277	-14815	-11359	-9049	-4056	-5447	-2798	-9438	-7456
4 Invisibles (net)	7152	9804	10321	5460	5680	2898	1921	1620	-242	619
5 Current account balance	-4178	-6473	-4494	-5899	-3369	-1158	-3526	-1178	-9438	-6837
(as per cent of GDP)	..	(-1.6)	(-1.1)	(-1.6)	(-1.0)	(-0.4)	(-1.8)	(-0.4)	(-3.2)	(-2.5)
6 External assistance (net)	161	899	1109	883	1526	1901	1859	3037	2210	1856
7 Commercial borrowings (net)	4562	3999	2848	1275	1030	607	-358	1456	2248	1777
8 IMF (net)	-290	-618	-975	-1715	-1143	187	1288	786	1214	-877
9 NRI deposits (net)	372	1125	3350	1103	172	1205	2001	290	1536	2403
10 Rupee debt service	-646	-767	-727	-952	-983	-1053	-878	-1240	-1193	..
11 Foreign investment (net)	841	4993	5838	4604	4807	4235	557	133	103	..
12 Other flows (net)*	-168	735	-1131	-2235	2604	2800	-245	101	2284	1370
13 Capital account total (net)	4832	10366	10312	2963	8013	9882	4224	4563	8402	6529
14 Reserve use (- increase)	-654	-3893	-5818	2936	-4644	-8724	-698	-3385	1278	308

Foreign investment flows by different categories	1998-99 (Apr-Dec)	1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92	1990-91	1989-90
A Direct investment	1562	3197	2696	2133	1314	586	315	129	..	..
a RBI automatic route	131	202	135	169	171	89	42	.	..	..
b SIA/FIPB route	1380	2754	1922	1249	701	280	222	66	..	..
c NRIs (40% and 100%)	51	241	639	715	442	217	51	63	..	.
B Portfolio investment	-682	1828	3312	2748	3824	3567	244	4	..	..
a FIIs	-752	979	1926	2009	1503	1665	1	..	..	..
b Euro equities	15	645	1366	683	2082	1520	240	..	..	..
c Offshore funds and others	55	204	20	56	239	382	3	4	..	..
Total (A+B)	880	5025	6008	4881	5138	4153	559	133	.	.

Net flows under non-resident deposits	1998-99 (Apr-Jan)	1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92	1990-91	1989-90
Foreign currency non-resident (accounts) (FCNR(A))	-1	-2305	-1949	-2796	-2249	-1317	825	-311	..	.
Foreign currency non-resident (banks) (FCNR(B))	-770	971	1776	2657	1955	1108	..	..	..	..
Non-resident external rupee accounts (NR(E)RA)	373	654	1067	-640	1033	783	-285	-593	.	..
Non-resident (non-repartiable) rupee depoists (NR(NR)RD)	268	658	2062	1056	732	1133	621	.	..	..
Total	-130	-22	2956	277	1471	1707	1161	-904	..	..

Invisibles on current account	1998-99 (Apr-Dec)	1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92	1990-91	1989-90
1 Foreign travel (net)	1025	1477	2020	1546	1547	1725	1713	1512	1064	1031
Receipts	1930	2914	2878	2713	2365	2222	2098	1977	1456	1433
Payments	905	1437	858	1167	818	497	385	465	392	403
2 Transportation (net)	-763	-726	-441	-158	-167	-332	-503	-350	-110	-208
Receipts	1313	1796	1953	2011	1696	1433	982	939	983	907
Payments	2076	2522	2394	2169	1863	1765	1485	1289	1093	1115
3 Insurance (net)	80	51	64	36	-29	-71	12	-18	23	35
Receipts	162	234	217	179	152	124	158	108	111	119
Payments	82	183	153	143	181	195	146	126	88	84
4 Investment income (net)	-1992	-3520	-3307	-3205	-3431	-3270	-3423	-3840	-3752	-2928
of which interest and service payments on foreign loans and credits	(-)	(2792)	(2201)	(2312)	(2690)	(2605)	(2412)	(2590)	(2763)	(3060)
Receipts	..	1561	1073	1429	886	395	376	221	368	413
Payments	.	5081	4380	4634	4317	3665	3799	4061	4120	3341
5 Government (nie) (net)	214	116	-106	-205	-155	-123	-25	-102	-158	-96
Receipts	513	276	72	13	10	30	75	17	15	31
Payments	299	160	178	218	165	153	100	119	173	127
6 Miscellaneous (net)	703	225	-686	-1405	-594	-664	-68	165	161	-38
Receipts	5046	4033	2479	2441	1912	1455	1417	1981	1986	1756
Payments	4343	3808	3165	3846	2506	2119	1485	1816	1825	1794
7 Transfer payments (net): a) official	223	351	410	345	416	368	363	460	461	539
Receipts	223	351	423	351	421	373	364	461	462	542
Payments	..	.	13	6	5	5	1	1	1	3
Transfer payments (net): b) private	7678	11830	12367	8506	8093	5265	3652	3783	2069	2281
Receipts	7731	11875	12435	8539	8112	5287	3664	3798	2083	2297
(i) imports of gold and silver (baggage)	402*	2818	2718	1943	2100	1670	1076	0	0	0
Payments	53	45	68	33	19	22	12	15	14	16
Total receipts	43213	23040	21530	17676	15554	11319	9334	9502	7464	7498
Total payments	47391	13236	11209	12216	9874	8421	7413	7882	7706	6883
Net receipts	-4178	9804	10321	5460	5680	2898	1921	1620	-242	615

* Includes errors and omissions .. not available. * Estimated. *Source: Economic Suvey*

DABUR INDIA

Rising Sales

DABUR INDIA is one of the country's oldest health and personal care companies. The company markets ayurvedic and herbal products. Established in 1884, Dabur is a household name for such well known products as Hajmola, Chyawanprash, Dabur Amla and Lal Dant Manjan. The company today boasts of nine brands that command 65 per cent or more of the market share in their respective product categories, a strong product base, a distribution network and retail reach that could give any health and personal care company a run for its money.

The year 1997-98 saw the company increase its net sales by 14.9 per cent over the previous year. However, a steep increase in operating expenses diluted the rate of growth in profitability. Consequently, operating profit rose by a lower 5.2 per cent over the same period. Though interest expenses fell by 11.1 per cent, a sharp increase in depreciation (up 43 per cent) more than offset the advantage. The company's bottomline increased by 4.8 per cent during the year under review.

With earnings per share rising from Rs 14.9 to Rs 15.6, the company decided to raise the dividend rate from 30 per cent last year to 35 per cent. Book value, meanwhile, edged up from Rs 68.3 per share to Rs 79.7 per share. The company's stock presently quotes at around Rs 603 on the bourses, discounting its 1997-98 earnings by 38.7 times, reflecting the high investor fancy it enjoys.

During the year, the company's new, highly automated manufacturing unit to produce brands such as Chyawanprash, Janma Ghunti, Ayurvedic oils and Asav-Arishtas, came into operation at Baddi (Himachal Pradesh). The company claims that this, apart from underwriting the quality of the products, substantially reduced per unit energy consumption and improved yields. In order to complete the expansion plans at Baddi for its branded products, a new modern unit has also been constructed to produce a range of softgel products. The company's bulk pharmaceutical compounds manufacturing facilities at Kalyani (West Bengal) also became fully operational during the year under review for producing oncology and non-oncology products for both the national and international markets.

Meanwhile, for the first nine months of 1998-99, the company notched up a 9 per cent increase in net profit over the corresponding period last year. Net sales during the same period rose by 17 per cent and operating profit improved by 11 per cent. Encouraged by its performance, the company declared an interim dividend of 20 per cent for 1998-99.

Dabur India has set up a 50:50 joint venture with Bongrain International SAS of France for the manufacture and marketing of world class processed cheese. The joint venture company, christened Dabon International, has set up manufacturing facilities near Delhi at a cost of Rs 20 crore. Dabon has already launched French processed cheese LeBon which is 100 per cent vegetarian.

While setting up one joint venture, Dabur India has sold its entire stake in another joint venture – its 49 per cent joint venture with Spanish confectionery major, Agrolimen group. The joint venture company, General De Confiteria India is being handed over to the Agrolimen group for a consideration of Rs 35.25 crore.

JAGATJIT INDUSTRIES

Sell-Off Rumours

Jagatjit Industries, which is engaged in the manufacture of liquor, is the owner of such well-entrenched brands as Aristocrat, Aristocrat Premium, Binnies and Bonny Scot. Its milkfood division is also engaged in manufacturing such well known brands as Maltova and Viva. The company has some 250 distributors in the country with a strong presence in the north. It has the largest, state-of-the-art distillery at Hamira in Punjab with a capacity of 48.5 million litres per annum. The company has been in the news repeatedly because of rumours of it being taken over by multinationals – first it was Hiram Walker (now Allied Domecq), then came the much talked-about deal with Bacardi, and later the alleged sell-off deal with Brown Forman Corporation, a Fortune 500 company. However, the company's chairman and managing director, Ladli Pershad Jaiswal, has denied all such rumours.

For the year 1997-98, Jagatjit Industries witnessed a mixed performance. While net sales rose by 18.6 per cent over 1997-98, operating profit fell by 1.5 per cent over the same period. Despite steep increases in interest (up 16.8 per cent) and depreciation (higher by 54.9 per cent), the company managed to post a 5.9 per cent increase in its bottomline, aided largely by an increase in non-operating profit (up 191 per cent) and a fall in taxation (down 34.1 per cent).

Despite its poor performance on the operating profit front, Jagatjit Industries was till recently one of the most profitable companies in the liquor industry. In fact, while leaders like Shaw Wallace and United Breweries, with market shares of 17 per cent and 29 per cent, respectively, posted negative profit margins in 1996-97, Jagatjit Industries, which has a 6 per cent market share, notched up a relatively high profit margin during the same year.

Jagatjit greatest advantage is that it has a core consumer segment committed to some of its brands, in particular, Aristocrat. In fact, the repeated rumours of being taken over by multinational is understandable since the company would give an MNC a head start of 7-8 years over its competitors straight away, especially considering Jagatjit's marketing network. Further, the company's distillery at Hamira is one of the finest in the country. Further, while all other distilleries are restricted in the raw materials that they can use to manufacture alcohol, the company's unit is the only one allowed to make spirit from molasses and grain.

The company's share price currently rules at around Rs 85 on the bourses, discounting its 1997-98 earnings by 18.9 times.

DCL POLYESTERS

Excess Capacity

Hyderabad-based DCL Polyesters is engaged in the manufacture of polyester filament yarn (PFY), polyester chips and draw texturised/twisted yarn. The company's performance during the year 1997-98 was far from satisfactory. However, there was a marginal improvement over the previous year. Though net sales remained virtually stagnant as compared to 1996-97, operating profit increased by 8.7 per cent over the same period. Interest charges declined by 2.1 per cent and depreciation increased by 2.9 per cent. As compared to a net loss of Rs 12.9 crore in 1996-97, the company posted a lower net loss of Rs 9.9 crore in 1997-98.

Production of PFY increased from 29,024 tonnes during the previous year to 31,117 tonnes, representing an increase of 7 per cent. The company also manu-

(Rs lakh)

Financial Indicators	Dabur India March 1998	Dabur India March 1997	Jagatjit Industries March 1998	Jagatjit Industries March 1997	DCL Polyesters March 1998	DCL Polyesters March 1997
Income/appropriations						
1 Net sales	78145	67985	35140	29620	22561	22564
2 Value of production	79192	67317	36022	29788	22144	22442
3 Other Income	1226	1413	817	455	422	625
4 *Total income*	80418	68730	36839	30243	22566	23067
5 Raw materials/stores and spares consumed	15274	12876	14310	11381	14150	14975
6 Other manufacturing expenses	32919	30194	6421	4161	2613	2635
7 Remuneration to employees	4069	2990	2212	1888	753	667
8 Other expenses	19459	14403	9442	8292	1895	1888
9 *Operating profit*	8697	8267	4454	4521	3155	2902
10 Interest	2597	2922	1326	1135	2597	2652
11 *Gross profit*	6095	5484	3847	3633	579	237
12 Depreciation	1623	1135	1069	690	1573	1529
13 *Profit before tax*	4472	4349	2778	2943	–994	–1292
14 Tax provision	33	115	557	845	NA	NA
15 *Profit after tax*	4439	4234	2221	2098	–994	–1292
16 Dividends	1184	855	1631	1462	NA	NA
17 Retained profit	3255	3379	590	636	–994	–1292
Liabilities/assets						
18 Paid-up capital	2851	2851	4944	4944	6469	6469
19 Reserves and surplus	19875	16634	30434	25760	7941	8936
20 Long-term loans	15360	15398	4266	3998	14010	14321
21 Short-term loans	11653	6792	3635	3510	3262	3215
22 Of which bank borrowings	8079	6442	3635	3510	3262	3215
23 Gross fixed assets	28605	22519	43687	38536	34203	33135
24 Accumulated depreciation	8006	6454	9601	8384	11324	9766
25 Inventories	11803	9655	6293	5381	4738	5083
26 Total assets/liabilities	58437	48758	52851	46072	34753	35911
Miscellaneous items						
27 Excise duty	2991	2696	2792	2762	7374	9678
28 Gross value added	12560	10748	7498	6622	3615	3014
29 Total foreign exchange income	4972	6429	2689	2308	1330	938
30 Total foreign exchange outgo	3323	1953	377	792	2068	3666
Key financial and performance ratios						
31 Turnover ratio (sales to total assets) (%)	133.73	139.43	66.49	64.29	64.92	62.83
32 Sales to total net assets (%)	157.11	163.13	81.19	77.51	71.21	68.50
33 Gross value added to gross fixed assets (%)	43.91	47.73	17.16	17.18	10.57	9.10
34 Return on investment (gross profit to total assets) (%)	10.43	11.25	7.28	7.89	1.67	0.66
35 Gross profit to sales (gross margin) (%)	7.80	8.07	10.95	12.27	2.57	1.05
36 Operating profit to sales (%)	11.13	12.16	12.68	15.26	13.98	12.86
37 Profit before tax to sales (%)	5.72	6.40	7.91	9.94	–4.41	–5.73
38 Tax provision to profit before tax (%)	0.74	2.64	20.05	28.71	NA	NA
39 Profit after tax to net worth (return on equity) (%)	19.53	21.73	6.28	6.83	–6.90	–8.39
40 Dividend (%)	35.00	30.00	30.00	30.00	NA	NA
41 Earning per share (Rs)	15.57	14.85	4.49	4.24	–1.54	–2.00
42 Book value per share (Rs)	79.71	68.34	25.57	24.38	22.28	23.81
43 P/E ratio	38.73	NA	18.92	NA	–2.28	NA
44 Debt-equity ratio (adjusted for revaluation) (%)	67.59	79.02	33.75	33.18	97.22	92.96
45 Short-term bank borrowings to inventories (%)	68.45	66.72	57.76	65.23	68.85	63.25
46 Sundry creditors to sundry debtors (%)	45.49	33.16	58.29	103.55	65.92	64.78
47 Total remuneration to employees to value added (%)	32.40	27.82	29.50	28.51	20.83	22.13
48 Total remuneration to employees to value of production (%)	5.14	4.44	6.14	6.34	3.40	2.97
49 Gross fixed assets formation (%)	27.03	41.34	13.37	53.43	3.22	2.81
50 Growth in inventories (%)	22.25	–10.16	16.95	13.36	–6.79	–22.42

NA: means not available.

factured 4,625 tonnes of draw texturised/twisted yarn as compared to 2,383 tonnes produced in the previous year, which is an increase of 94 per cent. However, production of polyester chips fell from 18,687 tonnes to 17,276 tonnes (including quantity utilised for PFY production). Sale of PFY too increased by 9 per cent in volume terms from 28,519 tonnes to 31,175 tonnes, while that of draw texturised/twisted yarn was higher by 97 per cent at 4,612 tonnes.

The company's main raw material are purified terephthalic acid (PTA), mono ethylene glycol (MEG), polyester chips and partially oriented yarn – 25 per cent of which are imported. The extent of import content in raw material has come down from 30 per cent in 1996-97. Consequently imports during the year fell by 43 per cent. Exports, on the other hand, improved by 41.8 per cent with the company exports goods worth Rs 13.3 crore as compared to exports of Rs 9.4 crore made in the previous year.

Despite the company's somewhat improved performance, the recessionary conditions and imbalances in demand and supply in the polyester industry continued unabated during the year under review. The additional capacity created during the last couple of years has resulted in an oversupply situation and this was further compounded by the threat of cheaper imports from south-east Asian countries. The crashing prices put tremendous pressure on margins and realisations were far from remunerative. DCL Polyesters claims that the slight improvement in its performance (if it can be called that) was due to the fact that it employed the latest continuous polycondensation technology to manufacture PFY at a lower cost and with minimum wastage. Further, an assured supply of PTA and MEG, the two major raw material for PFY, and a strong marketing and distribution network were added advantages.

During the year, the company undertook modification and expansion schemes for optimising its operations. The modification scheme envisaged converting three of the six extruder lines to direct spinning lines at a cost of Rs 3.87 crore, resulting in saving in operational costs. The expansion scheme was to enhance the texturising capacity from 5,000 tpa to 7,500 tpa by adding three more texturing machines at an estimated cost of Rs 10.6 crore. This was being done to take advantage of the increased margins for texturised yarn.

The company's share price has taken a beating in the stock market with its stock quoting below par at a mere Rs 3.5, reflecting the low investor fancy for the scrip

Beyond Lahore: From Transparency to Arms Control

Zia Mian
M V Ramana

As the US and USSR did decades ago, India and Pakistan have started to turn to 'transparency' measures as a way to reassure themselves, and the international community, about the nuclear dangers they have created. These measures, however, do not confront the central fact that the two countries now have acquired the means to fight a nuclear war. The recent tests of Agni-II and Ghauri-II and references to Agni-III, Ghauri-III and Shaheen-I and II demonstrate just how little restraint the Lahore agreements impose on the two states continuing to develop their nuclear arsenals.

FOLLOWING the examples set over the last 50 years by the US and the other nuclear weapon states, the governments of India and Pakistan have now clearly chosen to rely on weapons of mass destruction and terror as the basis for their relationship with each other and the rest of the world. The nuclear tests they conducted in May 1998 and the accompanying political and military crisis raise genuine fears for the future of the people of south Asia. In the same way as the US and USSR did decades ago, India and Pakistan have started to turn to 'transparency' measures as a way to reassure themselves, and the international community, about the dangers that they have created. These measures, however, do not confront the central fact that the two countries now have acquired the means to fight a nuclear war. Nothing in the Lahore agreements changes this or even imposes any restrictions on it. The recent tests of Agni-II and Ghauri-II and references to Agni-III, Ghauri-III and Shaheen-I and II demonstrate just how little restraint the Lahore agreements impose on the two states continuing to develop their nuclear arsenals.

The Lahore Agreements

The agreements sketched out at Lahore are designed only to offer limited transparency and thus, it is felt, some kind of early warning that could prevent disproportionate responses from events associated with the nuclear, missile and military programmes. The two sides agreed to consult on their nuclear strategies and thinking and to notify each other about planned missile tests as well as accidental, unauthorised or unexplained incidents that could create the risk of nuclear war. There were also agreements to prevent untoward incidents at sea and to review existing communication links.

Many of south Asia's hawks, who championed the acquisition of these weapons in the first place, have welcomed the transparency measures. They have followed the American example, step by step, first in believing in deterrence and now transparency measures. They have even adopted the same turn of phrase used, over a decade ago, by Strobe Talbott who described such measures as "mutually agreeable rules of the road in the arms race – rules that will make the competition somewhat more predictable". Like Talbott, the hawks see no end to the competition.

Each one of the agreements put up for negotiation at Lahore draws directly on agreements between the US and the USSR during the early seventies.[1] The original agreements were little more than means to thin the fog of crisis that characterised superpower relations. The more significant arms control treaties, actually restricting the testing and deployment of weapons, such as the ABM Treaty, the Threshold Test Ban Treaty, Intermediate Nuclear Forces Treaty, and the Strategic Arms Reduction Treaties came later.

Moreover, the borrowing from superpower experience is partial and dangerous. As transparency measures, the Lahore agreements are limited in their scope. They do not address crucial details such as deployment patterns, command and control arrangements or early warning systems. The superpowers tried to compensate for these omissions by investing billions of dollars in spies and satellites and even more in their own early warning systems. India and Pakistan cannot resort to such expensive technological solutions both due to the lack of technological and financial resources and the fact that the geographical proximity of the two countries rules out any possibility of early warning under any circumstances.

These constraints create an additional imperative to push beyond the transparency measures that are on the table. It is here that the hawks are likely to resist. They want to see their respective states further develop and deploy their nuclear arsenals. Their response to even moderate arms control measures is likely to be similar to their superpower counterparts and characterised by suspicion and hostility. These attitudes are what has led them to support the weapons in the first place and leads them to an obsession with the possibility of cheating and thus the need for verification of any agreement.

Buying Time with Arms Control

As a way of getting to grips with the weapons themselves and recognising that the hawks have by and large hijacked the decision-making process in both countries, we suggest some small concrete verifiable arms control measures that can go beyond the transparency agreements. Like the transparency agreements, some of these steps draw upon superpower efforts during the cold war. It is difficult to justify making proposals that are so derivative and so restricted, especially given the sorry history of the cold war and superpower arms control.[2] For decades, arms control failed to restrict the size or sophistication of superpower arsenals and showed that it takes political change to achieve real results. However, in the interim it is vital to engage in measures that could help slow the momentum that has been created by the nuclear weapons tests and set the stage for a real disarmament process. We have no doubt that the fundamental problem is a political one and the long-term solutions, therefore, would lie in the political realm. Our aim is to help create time for the mobilisation of a peace movement that can challenge the elite and its way of thinking that has led the two countries to the edge of the nuclear abyss.

In trying to assess ways of dealing with nuclear weapons, it is important to be sensitive to the constraints created by the technology as well as the larger context into which the weapons as well as the

proposed forms of constraint are to work. There is no getting away from the fact that the material character of these weapons demands technical solutions of certain kinds. Just as treating these weapons as purely technical artefacts is inadequate – they are after all part of a larger social, political, scientific and military system, that creates them, maintains them and justifies them[3] – ignoring their specific technological and material nature misses out on a key way in which, as with other technological artefacts, they influence the societies into which they emerge.[4]

We divide our proposals into two – measures that would limit the potential size and destructiveness of the arsenals and measures that reduce the immediate danger to the people of the region from the existing weapons.

The Test Ban

One place where the awkward and difficult character of positioning oneself on arms control has been the tortured debate on the Comprehensive Test Ban Treaty (CTBT). Recognising the limited nature of the treaty,[5] and the fact that it allows nuclear weapon states to keep their existing capabilities while excluding other nations from acquiring the same, there are nevertheless genuine benefits that follow from a CTBT in constraining the further development of nuclear weapons.[6] It is for this reason that we, like the peace movement elsewhere, support the treaty and argue for a more serious engagement with the aspirations that guided the struggles for the treaty over the past four decades.

The coming into force of the CTBT should be supported and built on by committing to help force the nuclear weapons establishments the world over to stop further development of nuclear weapons. This would involve closing down the test sites, stopping subcritical and hydrodynamic tests, and research into a new generation of nuclear weapons. Closing the loopholes in the CTBT would put to rest the options that Indian and Pakistani nuclear weapons scientists and their international peers are trying to create for themselves to keep conducting weapons related research and development in the hope that there would be another "day the sun rose twice".[7]

Fissile Material Treaty

The other multilateral arms control measure that is under consideration is the Fissile Material Treaty (FMT).[8] This has been a priority for the nuclear weapon states, especially the US, ever since they stopped producing fissile materials themselves. Fully aware of the effects of the cutoff on its 'nuclear option', India, for a while, blocked progress on the FMT claiming that the treaty should be firmly linked to a time-bound programme for nuclear disarmament. However, in the aftermath of the May 1998 nuclear tests, as part of its efforts to ease international pressure, India relaxed its objections and has started participating in the negotiations at Geneva and has taken a similar position as the other nuclear weapon states. As negotiations develop, hard-liners in India may force renewed objections, as with the CTBT, because of the relatively small size of India's fissile material stocks.

Table 3: Pakistani Nuclear Facilities Affected by a Fissile Material Moratorium

Facility	Characteristics
Khushab	Research Reactor
Kahuta	Uranium Enrichment Centrifuge Plant
New Labs	Reprocessing plant

Table 1: Estimated Stockpiles of Directly Weapons-usable Fissile Materials[9]

Nuclear Weapon State	Weapon-Grade Uranium (tonnes)	Weapon-Grade Plutonism (tonnes)	Reactor-Grade Plutonium (tonnes)[10]
US	580	99.5	0
Russia	1050	131	33
Britain	21.9	7.6	51.3
France	25	5	35
China	20	4	0
Israel	–	0.5	0
India	–	0.33	0.45
Pakistan	0.2	0	0

Table 2: Indian Nuclear Facilities Affected by a Fissile Material Moratorium

Facility	Characteristics
CIRUS, Mumbai	Research Reactor
Dhruva, Mumbai	Research Reactor
FBTR, Kalpakkam	Research (fast breeder) Reactor
PFBR, Kalpakkam	Fast Breeder Reactor, planned
Ratnahalli	Uranium enrichment centrifuge plant
Trombay, Mumbai	Plutonium reprocessing plant
PREFRE, Tarapur	Plutonium reprocessing plant
KARP, Kalpakkam	Plutonium reprocessing plant

Currently, the main dispute is over the question of the enormous existing stockpiles of fissile material possessed by the nuclear weapon states (Table 1). The nuclear weapon states, led by the US, categorically refuse to discuss these stockpiles. Earlier this year, the director of the United States Arms Control and Disarmament Agency, John Holum, declared "we will not agree to any restrictions on existing stocks".[11] It should be obvious that leaving stockpiles untouched and banning only future production would serve no disarmament purpose at all. The non-nuclear weapon states and the non-aligned movement have recognised this; in the words of the Indonesian CD ambassador: "brushing aside the issue of stockpiles, would, once again, render the cutoff treaty a mere non-proliferation measure...[with] no added value to date".[12] India, reflecting its new found status, has opposed any discussion of stockpiles while Pakistan insists on talking about stockpiles, pointing to asymmetries in the stockpiles within south Asia as well as conventional weapons levels.[13] It is vital that pressure be brought to bear on the nuclear weapon states to include stocks in the negotiations and make the FMT into a disarmament treaty.

An Interim Production Freeze

Whatever be the scope of the treaty, negotiations are likely to take a long time. Pakistan and India may well use this time to pursue their ongoing arms race by building up their stocks of weapons useable fissile material with the attendant environmental and economic consequences. To avoid this, the two countries should declare, as with testing, a moratorium on the production of fissile material for weapons purposes. In parallel, they could call on the nuclear weapon states to publicly formalise their existing moratoria on fissile material production.[14]

The easiest way to ensure that India and Pakistan are complying with the moratorium would be for them to shut down their research reactors,[15] reprocessing and enrichment plants (Tables 2 and 3). Without reactors to make the plutonium, and reprocessing plants to extract it for use in nuclear weapons, and enrichment plants to make highly enriched uranium weapons, the two countries would no longer be able to increase their stockpiles of the raw materials for bombs. It would be relatively easy to verify that all known facilities are not being used by monitoring

them using commercial satellites or aerial observations.[16]

In a bid to keep their facilities open, the nuclear establishments in both countries are likely to claim that these facilities serve other purposes. Pakistan, for example, will say that Kahuta is meant to supply low enriched uranium for the new Chashma reactor. However, China has signed a contract to supply this reactor with fuel; there is therefore no need for Pakistan to produce its own fuel. Likewise, it has been claimed that the Ratnahalli plant in India is not capable of enriching uranium to the extent necessary for use in weapons and is actually intended to produce fuel for India's nuclear submarine. An enrichment plant can be easily modified to produce weapon-grade uranium. Further, the nuclear submarine is a colossal waste of money, and suggests only that India, like the other nuclear weapon states, intends to deploy nuclear missiles at sea – ample reasons to oppose the project in any case.

India also operates three reprocessing plants, including the recently built one at Kalpakkam, purportedly to produce plutonium for its fast breeder reactors. Quite apart from the possibility of making weapon-grade plutonium at fast breeder reactors, there are good economic and environmental reasons to stop the programme.[17] Despite these reasons, if India were to go ahead with its fast breeder programme, then it could well do so by putting them under inspections. After all the Japanese and German programmes were fully subject to international monitoring.[18]

Alongside this, they should agree not to manufacture, or otherwise acquire, tritium for use in nuclear weapons.[19] Tritium is used in order to 'boost' or increase the yield of nuclear weapons. A ban on the production of tritium would, therefore, limit the number of thermonuclear weapons that could be produced, each of which would have a destructive yield many times that of ordinary fission weapons. Such a ban would also reduce the incentive for Pakistani nuclear weapon scientists to continue pursuing a thermonuclear weapon of their own and so impede the potential for larger and more destructive weapons.[20]

A Ban on Missile Tests

As the recent tests of Agni-II and Ghauri-II show, the ballistic missile race is on and in danger of accelerating in the near future. Just as a ban on nuclear tests inhibits the development of new weapons designs, a ban on flight testing of missiles would inhibit the development of new missiles. India has conducted one flight test and continues to work on a new version of the Agni, an intermediate range ballistic missile. It is believed to be developing the Sagarika, a sea-launched missile. Pakistan, for its part, has tested a new version of the intermediate range Ghauri and is working on a new missile called Shaheen. The limited number of tests of missiles that have been conducted so far by India and Pakistan amount to experiments with missile technology; without many more tests it is not possible to deploy them with the level of confidence that military systems usually require. More tests are going to lead to growing confidence in the missiles and thus demands to deploy these missiles with the attendant increases in tension and danger.

There should be no illusion about the suggestions made above. These agreements in themselves do little to reduce the immediate danger to the people of the two countries from the current weapons. The most such measures could do is to restrict the potential devastation that could be wreaked upon them. They would also forestall an arms race between the two countries. Since leaders in both countries have stated repeatedly that they do not wish to participate in such a race, implementing these steps would be a way for the governments to demonstrate the sincerity of these statements.

Making Space with No-Deployment Zones

To address the immediate dangers another set of measures should be pursued in parallel that relate to the weapons themselves. These follow along the lines of the recent Indian resolution at the United Nations entitled 'Reducing Nuclear Dangers' that seeks to have the nuclear weapon states dealert their nuclear arsenals. What follows herein are, in a sense, an application of analogous steps in the south Asian context.

The greatest danger of nuclear war arises when missiles are deployed with nuclear warheads. It is believed that India and Pakistan have not yet placed their nuclear weapons on missiles or otherwise deployed them. This arrangement should be formalised as part of a verifiable treaty. This could be done by storing warheads at sites away from missiles and airbases. An additional benefit is that fears about the primitive and inadequate command and control systems that the two states may possess can be put to rest.

It is relatively straightforward to verify that a missile does not have a nuclear warhead without divulging any details of its construction by just looking for characteristic radiation patterns.[23] Since both India and Pakistan could deliver their nuclear weapons by aircraft, any arrangement would have to cover not just missile development and deployment, but also airbases. Airbases would have to be opened to inspectors, periodically and when challenged, who could look for storage sites for nuclear gravity bombs as well as observe aircrafts to ensure that their bomb bays have not been altered to allow loading of nuclear bombs. Such inspections have been conducted as part of the START I treaty by Russia and the US.[24]

The very short flight time of missiles allows no time for any response other than immediately launching one's own missiles in the event of a warning. Thus it is important to increase the time for the two

Table 5: Number of Prithvi Missiles Required to Damage a Single Airbase, Command Centre, or Radar Using Conventional Warheads as a Function of Accuracy

Accuracy (M)	Airbase	Command Centre	Radar
50	96	16	2
100	168	63	3
150	256	140	6
250	512	393	13
300	672	558	18

Table 4: Ballistic Missile Systems under Development or Production

Name of Missile	Range	Warhead Size	Development Stage
Indian Missiles			
Prithvi-I	150 km	1000 kg	Deployed
Prithvi-II	250 km	500 kg	Developed
Prithvi-III	350 km	250 kg?[21]	Under development
Agni-I	1500 km?	1000 kg?	Technology demonstrated
Agni-II	2500 km	1000 kg?	Technology demonstrated
Sagarika	300 km?	500 kg?	Under development
Pakistani Missiles			
Hatf-I	80 km	500 kg	Technology demonstrated
Hatf-II	300 km	500 kg	Technology demonstrated
Hatf-III	up to 800 km	500 kg	Technology demonstrated
M-11[22]	290 km	1000 kg?	In storage?
Ghauri	1500 km?	700 kg	Technology demonstrated
Shaheen	700 km?	1000 kg?	Displayed

countries to respond. This is made more difficult by the missiles already inducted in to the armed services, namely, the 150-250 km range Prithvi and possibly the 290 km range M-11 missiles. Due to their short ranges, if they are to be deployed, there is no alternative but to put them close to the border.

Despite the claims made about them, there is little military value of relatively inaccurate missiles. Prithvi, which is said to have an accuracy[25] of 150 m when fired up to a distance of 150 km, would need to be used in extraordinarily large numbers if armed with conventional, non-nuclear warheads and used to attack the kinds of targets it is said to be intended for.[26]

There are two consequences that follow from the characteristics of these missiles. If they are deployed in small numbers, as they are currently, they are likely to be seen as carrying nuclear warheads and so elicit a similar response. If they are deployed in large numbers, even with conventional warheads, they are likely to be seen as a first strike weapon, and capable of launching a surprise attack. This may well elicit a greater determination to use nuclear weapons very early in a war, before they are destroyed – the classic 'use them or lose them' problem. In view of these dangers, Pakistan and India should agree to move their missiles away from the border to a distance greater than their respective ranges.

The control by hawks over the policy-making process in the two states makes it likely that any agreement will confront accusations that the other side is likely to cheat and the means available to detect such cheating are limited, if not absent. However, there are many ways by which compliance may be overseen. There are several technologies based on experiences with the verification of treaties like the START, INF and Open Skies treaties. One possibility would be for a single co-operative monitoring centre, or two co-located ones, with international commercial satellites[27] providing Indians and Pakistanis identical high resolution imaging data from a several hundred km wide swath on both sides of the border. The exact width of the swath could be such as to ensure that neither Prithvi nor the M-11 could be deployed close enough to the border to be able to threaten significant areas of the other state without being detected. An alternative to using satellites is to rely on joint aerial observation flights.[28]

A second more robust and economical possibility is moving all missiles to designated, monitored storage sites that are to be located outside this no-deployment zone. Sensor systems can be deployed around these sites to detect any movement of the missiles outside the restricted area.[29] These can be combined with a system of electronic tags associated with each missile. The tags would send out regular signals that would allow the other party to know when one of the missiles has been moved beyond the storage site. These technologies can be complemented with a system that allows challenge inspections of these designated sites, especially if there is evidence of prohibited activities.[30]

Asking the international community for help with setting up such monitoring mechanisms would be a useful contribution to peace.[31] In contrast, attempts to obtain dual-use technologies in the case of India or purchasing expensive arms in the case of Pakistan are only likely to fuel suspicion and further the arms race at the level of research and development if not weapon systems.

Conclusion

At a time when the search is on for the rules of the nuclear road, it is important to appreciate that it is the hawks who have their foot on the accelerator and their hands on the steering wheel. What is needed are initiatives from the peace movement rather than hand-wringing after every nuclear and missile test. These initiatives must recognise that at the present moment the peace movement is not in any position to try to take control the car and bring it to a stop (and put the people on a bus that goes far beyond Lahore).

Political parties, in the current climate, have little experience or technical knowledge and are surrounded by advisors and so-called experts from the nuclear-scientific-military-industrial complex who are setting the limits of the debate. Not surprisingly, they are then able to pass of the most limited suggestions as proof of their commitment to peace. It is the responsibility of the peace movement to provide more robust and reliable measures that can gauge the reality of these commitments. The agreements suggested here also offer ways of testing the sincerity of India's offer of a No-First Use Treaty[32] and Pakistan's offer of a Non-Aggression Treaty.[33]

We recognise the limitations of the proposals listed here and intend them only as ways of buying time. Even this time will not be without risk. The only certain way to prevent the possibility of nuclear war in south Asia as elsewhere is the absolute and unconditional abolition of nuclear weapons. The urgent task is to engage in the political work that will put peace at the top of the agenda.

Notes

1 See US Arms Control and Disarmament Agency, *Arms Control and Disarmament Agreements*, Washington United States Arms Control and Disarmament Agency, 1990.

2 Alva Myrdal, *The Game of Disarmament: How the United States and Russia Run the Arms Race*, Pantheon, New York, 1982.

3 E P Thompson, 'Notes on Exterminism' in E P Thompson (ed),, *Exterminism and the Cold War*, New Left Books, London, 1982

4 Langdon Winner, 'Do Artefacts have Politics' in Langdon Winner (ed), *The Whale and the Reactor*, University of Chicago, Chicago, 1986

5 The inability of the CTBT to ban effectively subcritical tests, computer simulations and hydronuclear experiments, as well as maintaining the test sites

6 See, for example, Praful Bidwai and Achin Vanaik, 'Why India Should Sign the CTBT: Returning to Our Own Agenda', *Economic and Political Weekly*, Vol 38, September 19, 1998.

7 Ferenc Morton Szasz, *The Day the Sun Rose Twice: The Story of the Trinity Site Nuclear Explosion July 16, 1945*, Albuquerque: University of New Mexico, 1984.

8 This is based on UN General Assembly resolution 48/75L, 'Prohibition of the Production of Fissile Material for Nuclear Weapons or Other Nuclear Explosive Devices' Fissile materials, highly enriched uranium and plutonium, are the key ingredients in nuclear weapons

9 Frank von Hippel, 'The FMCT and Cuts in Fissile Material Stockpiles', to be published in *Disarmament Forum*, United Nations Institute for Disarmament Research, Geneva, 1999.

10 Reactor grade plutonium refers usually to plutonium made in nuclear power reactors and can be used for making nuclear weapons, even though it is not custom-made for weapons use

11 US Statement to the CD, January 21, 1999, *Disarmament Diplomacy*, Vol 34, http://www.gn apc.org/acronym/cdholum htm.

12 Agus Tarmidzi, Indonesian ambassador to the CD, Geneva, February 20, 1997, CD/PV.756

13 Statement by Ambassador Munir Akram at the Special session of the Conference on Disarmament on June 2, 1998, http.//www3 itu.int/pakistan/Pak-India%20Nuc%20CD%20Special htm

14 Steve Fetter and Frank von Hippel, 'A Step-By-Step Approach to a Global Fissile Materials Cutoff', *Arms Control Today*, October 1995, pp 3-8

15 A term that both countries use to cover the fact that these reactors are used to produce weapon grade plutonium

16 Hui Zhang, 'The Application of Overhead Imagery to Verification of a Fissile Material Production Cutoff', The Tenth International Summer Symposium on Science and World Affairs, July 13-21, 1998, Cambridge, US.

17 For example, R Tongia and V S Arunachalam (former scientific advisor to the prime minister) have argued that the fast breeder reactor programme is incapable of making a significant contribution to India's electricity

needs. Rahul Tongia and V S Arunachalam, 'India's Nuclear Breeders: Technology, Viability and Options', *Current Science*, Vol 75, No 6, September 25, 1998, pp549-58.

18 Germany has completely abandoned its fast breeder programme and Japan is reducing its commitment to this programme.

19 Pervez Hoodbhoy and Martin Kalinowski, 'The Tritium Solution', *Bulletin of the Atomic Scientists*, July/August 1996, pp 41-44.

20 On reasons to foreswear hydrogen bombs see M V Ramana and Frank von Hippel, 'Does India Need a Hydrogen Bomb?', *The Hindu*, December 23, 1998

21 There are conflicting reports of the size of the warhead for Prithvi III, said to be the naval version of Prithvi From modelling the parameters of the missile, the most probable warhead mass is 250 kg. See M V Ramana, 'Modelling Prithvi and Agni', Talk at the VIII Summer School on Science and World Affairs, Cornell University, July-August, 1997.

22 Said to be in storage at the Sargodha airbase

23 Steve Fetter, et al, 'Detecting Nuclear Warheads' in Frank von Hippel and Roald Z Sagdeev, *Reversing the Arms Race: How to Achieve and Verify Deep Reductions in Nuclear Arsenals*, Gordon and Breach, New York, 1990.

24 For the text of the treaty, see Regina Cowen Karp, 'The START Treaty and the Future of Strategic Nuclear Arms Control', *SIPRI Yearbook 1992: World Armaments and Disarmament*, Oxford University, Oxford, 1992.

25 The accuracy is measured in terms of the CEP, or Common Error Probable, which is the radius of a hypothetical circle about the target into which half the missiles fired would land

26 Z Mian, A H Nayyar and M V Ramana, 'Bringing Prithvi Down to Earth: The Capabilities and Potential Effectiveness of India's Prithvi Missile', *Science and Global Security*, Vol 7, 1998, pp 333-60.

27 Images from these satellites are available to anyone who may choose to buy them. It is even possible that these could come from Indian and Pakistani satellites. 'India Using Satellites for Military Purposes: Sareen', *Deccan Herald*, December 30, 1998 and 'Satellite Badar-B Completed, Tested', *Dawn*, April 14, 1999. On the use of commercial satellite images for verification see, Michael Krepon et al, (ed), *Commercial Observation Satellites and International Security*, St Martin's, New York, 1990.

28 John H Hawes and Teresita C Schaffer, 'Risk Reduction in South Asia: A Role for Co-operative Aerial Observation?' http://www.stimson.org

29 Jurgen Altmann, 'Intermediate-Range Sensors for Verification and UN Peace-Keeping' in Jurgen Altmann, Thomas Stock, and Jean-Pierre Stroot, *Verification after the Cold War: Broadening the Process*, VU University, Amsterdam, 1994.

30 Such schemes have been tried and tested as part of the Conventional Forces in Europe Treaty.

31 The US based Co-operative Monitoring Centre has developed several technologies for remote monitoring.

32 'India Offers to Sign No First Use Pact with Pak', *Rediff on the Net*, October 16, 1998.

33 Prime Minister Nawaz Sharif's speech at the 52nd Session of the United Nations General Assembly, September 1997.

Forestry Research in India

Tapan Kumar Mishra

In colonial times, forest management in India meant only commercial exploitation of forest resources. After independence, conservation did become a goal. But forest management remains bureaucratised. Forestry research receives only a small part of plan allocations. Funding is often decided on purely technical criteria with no reference to local community needs. Production potential, limits to sustainable extraction and impact of the market must be considered when prioritising forest research activities.

A MAJOR change in the policy of forestry research in India has been from its quantity orientation to quality orientation. Previously forestry research emphasised revenue but now it advocates stress on environmental aspects. This has been reflected in the Indian Forest Policy, 1988. India has not been able to make significant progress in conserving its forestry resources and in deriving best results from the vast natural resources it possesses. This is not due to lack of efficiency of our scientific manpower but is largely due to neglect of research amenities connected to this field. A bill put before the parliament cannot do much without the will to implement. This has been lacking. The agenda set before our forestry research institutions has been half-hearted and aimless. The attitudes of colonial times persist.

Historical Background

Organised forestry activity began in 1864, when imperial forest department was established in India. Brandis was brought from Germany to look into the process of forest resource management in India. He was required to help commercial exploitation of forest resources rather than resource management. As Gadgil and Guha (1992) point out: "Walking a tightrope between the imperatives of colonial administration and the claims of social justice, Brandis, quite remarkably for his time and milieu placed considerable trust in the ability of village communities to manage their own affairs. Displaying an early 'ethnobotanical' interest in indigenous system of tree and plant classification, he circulated a list of local names, urging the younger officers, with more leisure and more extensive opportunities, to take up the study of the names of the trees and shrubs used by the tribes of central India."

In 1901 a small research laboratory was established in Dehradun to study certain soil properties of forests. It took no less than 37 years since the establishment of the forest department to feel that the status of forests has to be studied scientifically along with the extraction of resources. After another five years, i e, in 1906, the Imperial Forest Research Institute (IFRI) was established in Dehradun adding some new branches to the soil laboratory established in 1901. The present building of Forest Research Institute (FRI) was completed in 1929 where the then IFRI was housed.

After independence, IFRI was renamed FRI. This was the only national institute engaged in foresty research in India at the time of independence. Research in natural resources needs a database of depletion and distribution of resources. For this, two other national level institutions were established: Botanical Survey of India in 1890 and Zoological Survey of India in 1916. Subsequently, some important national organisations such as Forest Survey of India (FSI), Wildlife Institute of India (WII), National Botanical Research Institute (NBRI), National Bureau of Plant Genetic Resources (NBPGR) and some other regional and ecosystem level organisations were established for biodiversity research. In spite of all these efforts, resource inventory is a major need in forestry research of India. Only some commercially important resources have been documented. It has been rightly pointed out by many workers that an indepth study of biodiversity of India is urgently needed. There is no functional co-ordination between the national institutes for biodiversity research. Basically biodiversity research has not been of political interest in India, and does not draw attention of policy-makers. Up to 1985 forests were under the jurisdiction of agriculture ministry, government of India. The inevitable consequence of this overlapping was, in the First Five-Year Plan only 1/34th of agricultural allocation was earmarked for forestry. After the ministry of forestry and environment was separated from agriculture ministry in 1985, the allocation increased marginally. In the Eighth Five-Year Plan forestry

allocation was one-tenth of agriculture allocation. The share of forestry research was only 2 per cent of the total allocation for the ministry prior to Eighth Five-Year Plan period. In the Eighth Plan this allocation was increased to 6 per cent. These figures indicate the importance given to forestry research and management in India.

In the 1988 Indian Forest Policy, emphasis of forestry research was on increasing forest productivity on the one hand and community forestry on the other. The policy lays stress on better database preparation and clearly states "Priority needs to be accorded to completing survey of forest resources in the country on scientific lines and to updating information." The policy also points out that without the investment of financial and other resources on a substantial scale, these objectives cannot be achieved.

After independence some other institutes of forestry research were established. In 1956 a regional research centre was established in Bangalore. Afterwards three regional centres were established: at Coimbatoor in 1958, at Jabalpur in 1972 and at Jorhat in 1976. During the early 1970s not less than 17 small centres of Forest Vegetation Survey were established throughout the country. A considerable amount of finance was made available by the World Bank to develop the capabilities of forestry research in India. Indian Council of Forestry Research and Education (ICFRE) was established with its headquarters at Dehradun in 1991. Under this national body nine institutes and one advanced centre for forestry research were established in various regions of India. Thus, a meaningful, though still inadequate advancement was made in forestry research in India.

Causes of Concern

Never has forestry been an area of priority in India. The priority was sometimes industry and sometimes agriculture. There is no doubt that forests contain more biodiversity, so far as macro flora and fauna is concerned, in comparison to any other ecosystem. India is a megadiverse country and houses not less than 45,000 plant species and 75,000 animal species. At least 7,000 of these plant species are indigenous. The flora of India is greatly influenced by Indo-Malaysian, Eurasian and Tropical-African vegetation. We have 65 national parks and 426 research forests constituting in 25.45 million hectares (4.1 per cent) of total land area fully dedicated for preserving biodiversity. Besides these the country has 14 biosphere reserves with their unique ecosystems and covering about 1 per cent of the total land area of the country. In spite of all these efforts every year we are losing not less than 25,000 hectares of forests, of which 3,000 to 4,000 hectares are being lost due to mineral exploitation alone. After independence we had two forest policies in 1952 and in 1988 to cope with the national needs. After 1927 Forest Act, we had Wildlife (Protection) Act of 1972 and Forest (Conservation) Act of 1980 to check depletion of forest resources.

Search for Consonance

Consonance is matching research capability of a researcher with the research needs of an area. The increasing range of forestry research and the equally diverse worldwide demand on the elements of biodiversity are the major causes why such consonance is needed. The present trend is to fund research judging merit without reference to local needs. ICFRE is not the only organisation which is conducting or funding forestry research in India. Several other organisations continue to fund research. So it is necessary to keep a record of all research activities in progress.

Participatory mode of fixing research priorities is not a usual practice in our country. This participation refers to participation of the community. ICFRE is trying to fix research priorities involving state forest departments and a few scientists who work outside the institute. Here, questionnaires are circulated in a workshop, and from these individual sheets selected areas of research are ranked as per the individual scores obtained. However this exercise does not involve field level working scientists in decision-making process of framing forestry research policy in India. In West Bengal, when such as exercise was going on, though some handful of scientists were invited to take part, organisations like Botanical Survey of India, Zoological Survey of India were not involved for some reason or other. These institutes have their headquarters at Calcutta and no doubt are the most important organisations in identifying biodiversity resources of our country. Thus, such discussions are generally dominated by forest department officials, who can better be called as forest bureaucrats, and who since the inception of forestry activity in India are engaged in determining priorities of forestry research in India. It will be pertinent to mention here that forestry research in India has attracted only about 500 researchers.

The need of forestry research at present is a much broader approach, where the community around forests has to be involved in framing research priorities. Since 1988, 21 states of India have taken initiatives to launch joint forest management involving communities around forests. Though performances of different states vary, not less than 20,000 forest protection committees now exist managing about 30,00,000 hectares of degraded forest land of our country. The experiences of people regarding forest management, which may be termed as 'indigenous knowledge', has found a place in the day-to-day management of our forests. Any priority setting exercise of forestry research has to give due importance to these micro-level management decisions, which are mostly based on the resources existing already within our ecosystems.

Research Needs

Essentially forestry research in India has to be conducted at two different levels: (i) conservation level and (ii) day-to-day management level. At the conservation level, human intervention in the forest ecosystem is unwanted, whereas, at the management level human intervention is a must. The two levels may be contradictory but the policy-making national level research organisations have to find a balance between the two. Neither of the two levels can be ignored. Conservation being a management strategy, is often confused with preservation. The prevailing idea in the forest bureaucracy is that conservation is the sole prerogative of the state. Being influenced by this notion, policing capability of the forest department has been regularly geared up. Thus the concern of ecosystem people regarding their own natural resources is undermined. It is a utopian idea that people would prefer to preserve their ecosystem even if they go hungry. A meaningful conservation can be expected only when a community is given some rights on extraction from the ecosystem they conserve. Here comes the need of sharing benefits. This will certainly vary from ecosystem to ecosystem but not necessarily from state to state. The issues covering bilateral matching of institutions, sharing of benefits, specific sharing of management responsibilities and capacity building of institutions are to be standardised by the researchers.

In day-to-day management affairs many intricate questions are to be addressed by the researchers as these will influence the ecosystem directly. These include water management, biomass management, etc. These questions are technical in nature and a populistic demand for bestowing responsibilities may cause permanent damage to the ecosystem. While considering this aspect,

one should be careful that in no situation would any management decision be responsible for divorcing culture of the forest fringe community from the nature surrounding them. The civilisation of India, nurtured by nature, is mostly biomass based. There cannot be a general prescription for exploiting much needed biomass as ecosystems vary from place to place and even from time to time. If joint forest management is a strategy for conserving forests of India, maximum emphasis on non-timber forest produce is to be given. Studies on production potential [Mishra 1998], sustainable limits to extraction and intervention in the present market system of such resources are essential. All these are to be considered while prioritising research activities.

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UP Finances: Budgetary Illusion and Reality

Ajit Kumar Singh

The Uttar Pradesh state budget for 1999-2000 presents a rosy picture of the state's financial situation by manipulating figures of budgetary receipts and expenditure. In reality, all major fiscal indicators show a sharp deterioration in state's finances.

FOR quite sometime the financial position of the Uttar Pradesh government has been in the doldrums, as in many other states. The fiscal profligacy of successive governments, facing short and uncertain tenures, combined with a singular lack of political will to tax the rural and the urban rich has landed the state into an unmanageable fiscal crisis. This is reflected in unsustainable and high levels of revenue and fiscal deficits, mounting debts and interest burden, and increasing resort to withdrawals from the 'public account' including reserves and employees' provident funds.

Nearly all the major fiscal indicators show a continuous worsening of the situation (Table 1). Total expenditure as a proportion of SDP has steadily increased from 19.82 per cent in 1996-97 to 26.96 per cent in 1998-99. On the other hand, revenue receipts have stagnated at around 13.5 per cent of SDP, while tax-SDP ratio has remained at the low level of 5.5 per cent. The state government has been forced to borrow increasing amounts even to meet its revenue expenditure. Total indebtedness of the state government is now nearly two-fifths of state income. Fiscal deficit is likely to touch the figure of 7.9 per cent of SDP in 1998-99, while revenue deficit is estimated to be 5.7 per cent of SDP. These figures are much above the average figures for all the states.

To meet its mounting expenditure the state government is resorting to the unwise policy of withdrawals from the public account which represents reserves and employees' provident fund. The drawing on the 'public account' amounted to a hefty Rs 3,474.16 crore in 1997-98 and Rs 3,743.77 crore in 1998-99.

The precarious situation of the state finances is reflected in the fact that the government had to depend heavily on the ways and means advances from the Reserve Bank of India (RBI) which touched the level of Rs 8,000 crore in 1998-99. This amounts to 42.5 per cent of the revenue receipts of the government and 28.6 per cent of its total receipts from all other sources. In other words, the RBI had to bale out time and again the cash strapped UP government throughout the year. The central government, headed by the same party which is ruling the state, also lent a helping hand by raising the level of central assistance from Rs 2,166.53 crore in 1997-98 to Rs 3,120.15 crore in 1998-99.

Alarmed by the fast deteriorating fiscal situation, the state government took the unusual step of issuing a white paper on the fiscal situation in the state along with the budget of 1998-99, admitting that the state is almost in the grip of a debt trap. It would be appropriate to examine the budget for 1999-2000 presented by the chief minister Kalyan Singh, who also holds the finance portfolio, to the state assembly on February 19, 1999 in the above context.

The chief minister acknowledged in his budget speech that the state is presently in a state of financial crisis but put the blame on the previous governments for the lack of fiscal discipline and their inability to raise additional resources which have led to the crumbling of the fiscal structure of the state. The chief minister expressed his determination to reverse the unhappy past trends to give a right direction to the state finances by bringing down the proportion of the fiscal deficit from 7.9 per cent of SDP in 1998-99 to 6.3 per cent of SDP in 1999-2000. A close scrutiny of the budget proposals in the light of the past trends would belie these claims.

The budget projects a total expenditure of Rs 40,754.04 crore for 1999-2000 including Rs 29,761.88 crore on revenue account and Rs 10,992.16 crore on capital account (Table 3). Receipts for 1999-2000 have been projected at Rs 37,294.78 crore – Rs 22,831.06 crore on revenue account and Rs 14,463.72 crore on capital account. In spite of the claims to restraint expenditure, revenue expenditure is likely to go up by Rs 2,295.99 crore over the previous year out of which Rs 1,530.66 crore would be only on salary head. On the other hand, capital account expenditure is projected to go down by Rs 2,664 crore over the previous year on account of lower projected reliance on RBI ways and means advances which is placed at Rs 5,000 crore.

Revenue receipts are projected to go up by Rs 4,031.04 crore, but capital receipts are likely to go down by Rs 2,387.70 crore due to lower projected drawing on ways

TABLE 1: MAJOR INDICATORS OF FISCAL SITUATION IN UP, 1996-2000

(Per cent of SDP)

Item	1996-97 Actual	1997-98 Actual	1998-99 BE	1998-99 RE	1999-2000 BE
Tax revenue	5.38	5.38	6.14	5.30	6.02
Revenue receipts	13.68	13.52	13.43	12.33	13.14
Revenue expenditure	16.39	17.08	18.08	18.01	17.12
Revenue deficit	2.71	3.56	4.65	5.68	3.99
Capital receipts	4.49	5.39	6.18	11.29	8.32
Capital expenditure	3.43	4.42	4.61	8.95	6.32
Total expenditure	19.82	21.49	22.69	26.96	23.45
Fiscal deficit	4.60	5.83	7.02	7.93	6.30
Primary deficit	1.20	1.95	3.57	4.03	2.33
Interest payment	3.50	3.88	3.45	3.90	3.97
Total indebtedness	35.63	37.21	38.70	38.25	39.10

Source: UP government, *Annual Financial Statement for 1999-2000 and Brief Review of Financial Situation, Budget Papers*, Vol II, Part I.

and means advances from the RBI. In spite of an optimistically higher receipts, the government expenditure will exceed its receipts by as much as Rs 3,459.26 crore, requiring a withdrawal of Rs 3,080.28 crore from the 'public account'. Even then the government will be left with a deficit of Rs 772.63 crore, after taking into account the opening negative balance of Rs 393.65 crore.

Let us examine how realistic are the budget figures. Of late, both state and central governments are resorting to the practice of showing a rosier picture than warranted by facts through a process of what has been aptly described as 'creative arithmetic'. Budgetary receipts are deliberately overestimated while anticipated expenditure is underestimated. Thus, total expenditure, which had shown a run away growth of 20.2 per cent in 1997-98 and 47.2 per cent in 1998-99 is projected to decline by 1 per cent in 1999-2000. Similarly, revenue expenditure which had increased by 15.6 per cent and 23.7 per cent in 1997-98 and 1998-99 respectively is estimated to go up by only 8.4 per cent next year. Capital expenditure which had shown an abnormal jump of 138 per cent in 1998-99 is actually expected to go down by 19.5 per cent in 1999-2000 due to lower recourse to ways and means advances from the RBI assumed for next year, a questionable assumption given the precarious state of the state finances.

Equally unrealistic are the projected receipts for the next year. Revenue receipts, which had shown a modest increase of 9.6 per cent and 7 per cent in 1997-98 and 1998-99, have been projected to suddenly jump by 21.4 per cent in 1999-2000 even when no additional resource mobilisation measures have been proposed in the budget.

The casual way to budget formulation is reflected in the way targets for revenue from state taxes are fixed. Thus, revenue from state taxes is expected to go up by as much as 29.3 per cent next year, against an actual increase of 11 per cent in 1997-98 and expected increase of 15.6 per cent during 1998-99. The unrealistic nature of revenue targets in the budget estimates will be clear from a look at the gap between the projected increase in tax revenue and the actual receipts in the previous year. Thus, the revised estimate for state tax revenue during 1998-99 was 8,090.19 crore against the proposed target of Rs 9,369.49 crore, i e, a shortfall of Rs 1,279.30 crore (Table 4). The shortfall in receipts over budget estimates was Rs 721 83 crore in case of sales/trade tax, Rs 298.40 crore in stamp and registration fees and Rs 217.60 crore in goods and passenger taxes. Unmindful of its own performance in the current year, the state government has again fixed unattainable targets for the next year. For instance, state excise duties are expected to fetch an additional Rs 562.58 crore when the industrial output in the state has been nearly stagnant for several years.

In spite of the rosy picture presented in the budget, the situation still presents a deterioration in nearly all the major fiscal indicators when compared with the year 1997-98 (Table 1). The slippages in fiscal targets observed during 1998-99 are not likely to be reversed next year. In all probability the fiscal crisis in the state would further deepen during 1999-2000, casting serious doubts on the claims of the chief minister that the revenue and fiscal deficits as per cent of SDP would go down and the undesirable financial trends observed in the last decade would be reversed.

TABLE 2: TRENDS IN REVENUE AND FISCAL DEFICIT IN UP, 1991-97

Year	Revenue Deficit		Fiscal Deficit	
	Rs Crore	As Percentage of SDP	Rs Crore	As Percentage of SDP
1991-92	724.59	1.1	2,836.50	4.4
1992-93	1,014.56	1.4	3,710 93	5.2
1993-94	1,148.72	1.4	3,165.77	4.0
1994-95	2,000 74	2.2	4,766.50	7.3
1995-96	2,340.65	2.3	5,507 70	5.3
1996-97	4,646.10	3 9	6,602 31	5.6
1997-98	4,623.91	3.6	11,023.98	5.8
1998-99 (RE)	8,665.87	5.7	12,091 42	7.9

Source. UP government, *White Paper on Budget 1998-99*, Part II and *Budget Papers 1999-2000*.

TABLE 3: TOTAL BUDGETARY RECEIPTS AND EXPENDITURE IN UP

(Rs crore)

Item	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 RE	1999-2000 BE
Total receipts	19,628 48	21,287 33	24,574 85	36,020.10	37,294 78
		(8 5)	(15 4)	(46.6)	(3 5)
Revenue receipts	15,215.21	16,028.57	17,571 12	18,800.02	22,831 06
		(5.3)	(9.6)	(7 0)	(21.4)
Capital receipts	4,413.27	5,258.76	7,003.73	17,220.08	14,463.72
		(19.2)	(33.2)	(145.9)	(-16.0)
Total expenditure	21,183.08	23,226.47	27,933.74	41,122.05	40,754.04
		(9 6)	(20.2)	(47.2)	(-0.9)
Revenue expenditure	17,555.86	19,207.70	22,195.03	27,465.89	29,761 88
		(9 4)	(15.6)	(23.7)	(8.4)
Capital expenditure	3,627.21	4,018.77	5,738.71	13,656.16*	10,992.16*
		(10.8)	(42.8)	(138.0)	(-19.5)
Total consolidated fund	-1,544 60	-1,939.14	-3,358.89	-5,101.95	-3,459.26
		(25.5)	(73.2)	(51.9)	(-30.2)
Contingency fund (net)	-43.85	-56.92	-135.73	45.00	-
Public account (net)	1,830.78	1,878.95	3,494.16	3,743.77	3,080.28
		(2.6)	(86.0)	(7.1)	(-17.7)
Budgetary surplus/deficit	232.33	-3.28	-0 46	-1,313.18	-378 98
Closing balance			35.62	-393 65	-772.98

Notes: * includes ways and means advances from the RBI amounting to Rs 8,000 crore for 1998-99 and Rs 5,000 crore for 1999-2000.
Figures in brackets show percentage increase over the previous year.
Source: Revenue department, UP government, *Outline of UP Budget 1999-2000*.

TABLE 4: ESTIMATES OF STATE TAX REVENUE IN UP

(Rs crore)

Item	1998-99			1999-2000	
	BE	RE	Difference	BE	Difference over RE 1998-99
Land revenue	46.75	46.75	-	46 75	-
Stamp and registration fees	1,350.00	1,051.60	-298.40	1,450.00	398.40
State excise duties	1,697.42	1,697.42	-	2,260.00	562.58
Sales/trade tax	5,341.83	4,620.00	-721.83	5,760.00	1,140.00
Vehicles tax	212.40	178.67	-33.73	212.40	33.73
Goods and passenger tax	437.60	220.00	-217.60	437.60	217.60
Electricity duty	136 00	136.00	-	142.80	6 80
Other taxes on goods and services	140.76	133.00	-7.74	140.19	7 17
Other tax revenue	6.73	6.73	-	7.06	0 33
Total tax revenue	9,369.49	8,090.19	-1,279.30	10,456.80	2,366.61

Source: UP government, *Annual Financial Statement for 1999-2000 and Brief Revenue of Financial Situation, Budget Papers*, Vol II, Part I.

Bill Gates in the Dock

Anti-Trust Case against Microsoft

Prabir Purkayastha

One of the measures that the US justice department is contemplating, in its anti-trust case against Microsoft, is compulsorily licensing Microsoft products to others to break its monopoly. This is in sharp contrast to the strenuous US opposition to compulsory licensing under the WTO framework.

THE Microsoft anti-trust case filed by the US justice department has drawn very little interest in India. Yet it is a landmark case, involving as it does not only the largest company in terms of market capitalisation in the world but also a number of vital issues. Interestingly, one of the measures that the US justice department is contemplating is compulsorily licensing Microsoft products to others in order to break its monopoly. This may be contrasted with the US strenuously opposing compulsory licensing under the WTO framework.

The use of compulsory licensing is to prevent companies who have monopoly from fleecing consumers. In the pharmaceutical industry, the needs of the consumer for life-saving drugs can be used by the drug companies who hold patents to increase prices to very high levels. Thus AZT, a drug used for slowing down the effect of AIDS, was priced initially above $ 50 a dose before AIDS victims launched an agitation to bring down the price. When a monopoly producer sets prohibitive prices for its patented drug, the state has the right to license its product to another company and ask the company to pay a reasonable royalty to the patent holder. This is to ensure that public good can be ensured even under a patent regime. However, this is precisely the provision that has come under attack in the new Intellectual Property Rights regime under WTO and countries such as India are being asked to drop such provisions from their patent laws. Faced with monopoly of the Microsoft variety, the US justice department is finding now a lot of merit to compulsory licensing.

Microsoft is currently the world's largest business. Its size alone makes it of global importance. Even more important, as computers enter all fields – writing, games, calculations, complex systems running plants and business, communications, etc – whoever owns the software that drives all machines on the Internet will virtually rule the world. Internet is not only a gateway to information and games; tomorrow it can be the medium through which we get TV and films and transact business. Already, electronic commerce has become the hottest property in the market with companies such as Amazon.com – the electronic booksellers – reaching market capitalisation of tens of billions in only a few years. Thus we are talking about a structure of the world that merges all forms of communication and commerce. In this, Microsoft has not only set alarm bells ringing in the computer industry but all across the world. Whoever dominates the software market, could pry open other markets through this dominance. That is why the current trial is not only important for the computer world but for future of American business, and along with it for international business.

This specific anti-trust case arose out of Microsoft's attempt to capture the Internet browser market by bundling Microsoft's Internet Explorer with Windows 98, therefore shutting out Netscape Navigator, its competitor's product. The case has gone badly for Microsoft. It has brought out how Microsoft used its market power to destroy competition and arm-twist PC manufacturers to carry only its products. Its experts have been caught lying; two videos presented by Microsoft to prove its case have been found to be doctored, and senior Microsoft officials have admitted that if the Internet Explorer was presented side by side with the Netscape Navigator, most people would choose the Navigator. The case has also brought out the obsession of Bill Gates, the founder of Microsoft, to own every facet of software including the Internet.

Perhaps the defining moment of the courtroom drama was when James Allichin, a senior vice-president of Microsoft, admitted that the video he was using to show that the Explorer cannot be taken out from Windows 98 without problems was rigged. Professor Felton of Princeton University had developed a software programme for the Department of Justice (DOJ) and had testified that the Explorer could be removed from Windows 98 without disturbing its integrity or performance. Microsoft in turn presented a video showing how this software degraded the performance of the operating system. Unfortunately for Microsoft, David Boise, the Justice Department's star prosecutor, played the video frame-by-frame and showed where a title bar suddenly changed in the middle of the test, proving that the video was doctored. This blew a big hole in the Microsoft case that the Explorer was an integral part of the operating system and therefore needed to be bundled with the operating system.

When IBM had launched its PC, it asked Microsoft to write a new operating system to drive these machines. The MS-DOS was the result. IBM, as it was entering the PC market well after companies such as Apple and Sinclair, had to use all off-the-shelf components for its PC line. Therefore, it was an open architecture – anybody could copy it. Bill Gates gambled that others would and sold IBM the rights to MS-DOS at a very low price. He, however, retained the right to sell it to others. IBM found this to be attractive and made MS-DOS their standard PC operating system. IBM PC was able to power its way to make itself the industry standard. However, this did not help IBM much as IBM clones soon flooded the market. As these clones – IBM compatibles – grew in numbers, MS-DOS became a hot selling product. And while IBM took a beating, Microsoft grew in strength.

However, the MS-DOS story was only the beginning. Microsoft developed OS/2 for IBM and soon after entered the market on their own with Windows in 1991. Both were very similar. Not surprisingly, IBM accused Microsoft of bad faith and broke its long partnership with it. However, after having ridden piggyback on IBM, Bill Gates was willing to take them on. OS/2 was a dismal failure as all IBM's competitors flocked to Windows. After all, IBM was the big bad monopolist to fear and had all along used its market power to keep competitors out. What the PC makers did not realise was that they were creating an even bigger monopoly by backing Microsoft. Today, with its enormous market power, it is Microsoft that is dictating terms to all the hardware manufacturers.

The operating system is the software layer that lies between any software that you run and the machine. Thus, if you are doing word processing or using a spread sheet, the access to the machine is provided by the operating system. Obviously, Microsoft would have a head start over all others as it was the one who had developed the operating system. However, this was only one use Microsoft made of its ownership of the operating system. There were two other strategies that Microsoft followed. One was to bundle applications with the operating system; the other was to force the PC vendors to pay a licence fee to Microsoft for each PC sold by the vendor, irrespective of whether each PC carried its operating system or not.

The anti-trust wing of the DOJ had been receiving numerous complaints about Microsoft's monopoly and restrictive practices. However, they were loath to move

against Microsoft as it brings in enormous revenues from across the globe. More than 50 per cent of its revenue is from outside the US. DOJ filed a suit against Microsoft in 1994 which they immediately settled through an agreement. The main contention of the suit was that Microsoft was forcing PC manufacturers to license as many copies of Windows as they sold processors. Thus if the customer did not want his PC to carry Windows, he would still have to pay for the cost of Windows. Though the settlement prohibited processor-based licence, the loopholes in the agreement has meant that even three years after the settlement, no one in the US can buy any standard branded PC without buying Windows. The second part of the settlement was that Microsoft would not bundle other software in a way that competitor's products would get squeezed out. This is the issue right now before the court.

Microsoft had earlier used devices such as bundling (word-processing, spread sheet, database being bundled together as a suite, the Microsoft Office) and killing competitive lines of software. However, there was one area that Microsoft neither anticipated nor had any strength. This was Internet, where an explosive growth left Microsoft with the realisation that a whole new technology, of which it had no part, was being born. As more and more net applications sprung up, Microsoft realised that it was missing the Internet bus. Microsoft not only threw in its resources to create its web browser – the Internet Explorer – but also did two other things. After an initial period of competition that saw the Explorer come off as a poor second, it decided to give away the Explorer free. Not satisfied with this, it also decided to bundle it with Windows 98 – something that the agreement of 1995 was supposed to prevent. They also threatened all PC manufacturers that they would discontinue all Windows sales to them or raise their Windows prices if they took out the Explorer icon or ported a competitor's product. The explicit target was Netscape, which had the major browser market share. Irrespective of the result of the court case, Netscape has thrown in the towel and has now been acquired by America On Line, which itself is becoming a monopoly Internet Service Provider in the US.

The informed guess is that the district court judge hearing the case, Thomas Penfield Jackson, is going to rule against Microsoft. If he does so, and assuming that his judgment stands in the appeals that Microsoft is likely to file, what are the likely courses of action for the justice department? There are three options that are open. The first is to break up Microsoft into three or more companies – a set of 'baby Bills' – compulsorily licensing all existing Microsoft software to these 'baby Bills'. The second is to break up the operating system business from the rest of the software business. The third is to impose regulatory checks on Microsoft: a course of action that the justice department had tried earlier and failed. Thus, if Microsoft loses the legal battle, we are more likely to see the first or second option being tried. Instead of one Microsoft, we might have two or more Microsofts.

While two Microsofts may be better than one, the very size that Microsoft has now reached would mean that no competitor would be even close in size to the new 'baby Bills', ensuring an oligopoly. This is the limitation of the so-called anti-monopoly legislation where oligopolies are assumed to be adequate for competition. In practice, this rarely works in the consumers' favour as simple 'arrangements' between the large players easily bypass all anti-monopoly restrictions. Nevertheless, the Microsoft case brings out the real face of monopoly. It is not innovation and quality of its software that has made Microsoft the only software player for the PC market: it is its predatory practice and sheer blackmailing power.

Grand Old Man of the Socialist Fringe

Mama Baleshwardayal

Rahul

Unlike other intellectual stalwarts of the Indian socialist movement, Baleshwardayal Dikshit, popularly known as Mamaji, remained rooted to the bhil homeland and continued to give leadership to one of the most sustained but least publicised of peasant movements till the ripe age of 91.

WITH the passing away of Baleshwardayal Dikshit popularly known as Mamaji at the ripe age of 91 at his Bhil Ashram in Bamnia village in Jhabua district of Madhya Pradesh on December 26, 1998, the last surviving and most unique of the stalwarts of the first generation of socialists in India is no more. Mamaji, who had earlier declined a freedom fighter's pension considering it to be absurd to accept monetary compensation for patriotic deeds, refused to be treated in elite medical institutes of the country during the last two years of his life, when some of his organs had been severely affected by repeated attacks of malaria, saying that he would not avail of any facilities that a common bhil tribal could not get.

Mamaji was born in Niwari village of Etawah district of Uttar Pradesh in 1907. While in school he was influenced by the non-cooperation movement in 1921 and beat up a British teacher who spoke ill of Gandhi and was rusticated from school. His father Pandit Shivshankar Dikshit was a martinet and school-teacher himself, and so fearing his wrath, the teenaged Baleshwardayal fled to his maternal uncle's place in Khachrod near Ujjain in Madhya Pradesh. His uncle who was an inspector of co-operatives began training him in the working of co-operatives as a prelude to getting him a job in the co-operative inspectorate. Things were progressing sedately when Mamaji read in the newspapers that Gandhi had gone on a fast to get admission for untouchables into the Guruvayur temple in Madras.

Immediately Mamaji hatched a plan with some of his friends to organise the recital of a Satyanarain Katha at the end of which prasad would be distributed by untouchables. The katha was held and as planned prasad was distributed by untouchables. The upper caste devotees could not possibly refuse the divine prasad and so had to accept it. There was a furore afterwards, however, and once again Mamaji had to seek fresh pastures. He went to Bhabra in Jhabua district in 1931 on having invited by Chandrashekhar Azad's mother. He assumed the principalship of a local school in Thandla when the post fell vacant in 1932.

At that time most of the bhil homelands in western Madhya Pradesh, eastern Gujarat and southern Rajasthan were under the rule of jagirdars or small princes. There were only some pockets of British ruled territory like Panchmahals. The bhils had to bear the dual oppression of these feudal rulers and the sahukars or moneylenders. Mamaji started off by giving admission to bhil students in his school. He soon found that just providing education was not enough and more basic socio-economic reforms were necessary. So he got like-minded people together to form a 'praja mandal' or citizen's council. There was a severe drought in 1933 resulting in widespread crop failure. An appeal for providing relief drafted by Mamaji was published and circulated by the praja mandal in which the bhil farmer was referred to as 'annadata' or giver of the daily bread. This angered the ruler of Jhabua who contended that as the ruler only he could be the annadata and he had the signatory of the appeal Seth Soubhagmal arrested and paraded hand-

cuffed through the streets of Thandla. Mamaji led the praja mandal in a massive agitation against the prince which led to his removal by the British in 1934. This started off the movement against the despotic rule of the princes all over the region. The bhils under Mamaji's leadership started a long-drawn struggle against the practice of doing 'begaar' or free labour on the land of the princes.

Simultaneously, a movement was started against the usurious practices of the sahukars in 1934 which went on till 1937 gaining substantial success On the occasion of the 25th anniversary of the ascent of King George V to the throne of Britain in 1936, the British had ordered that all schools should celebrate the event. The Thandla school students and the praja mandal instead passed resolutions against the oppressive rule of the British. This led to a crackdown and widespread arrests under the Defence of India Rules. Mamaji who had gone to Etawah to be married to Savitri had to rush back cutting short his honeymoon and had to cool his heels in Jhabua jail instead. After his release he set up the Bhil Ashram in Bamniya village on the Delhi-Bombay rail route. This place was chosen strategically as it was on the border between the princely state of Jhabua and the British-ruled territory of Panchmahals. He was immediately involved in the derailment of a train and so used to move across the border frequently to avoid arrest.

The second phase of the anti-begaar movement was launched from Bamnia in an extremely quaint manner in 1941. Mamaji found that there was a rule in the princely states that kshatriyas and brahmins could not be made to do begaar. Agitations alone were not being effective enough in abolishing begaar. So Mamaji wrote to and got the sanction of the Shankaracharya of Puri to hold a massive religious congregation in Bamniya in which the bhils performed 'shuddhi' in large numbers and wore the 'janeyu' or sacred thread to become kshatriyas. This proved very effective as the hold of religion on the princes was very deep and they could not possibly defy the Shankaracharya and not recognise the bhils as kshatriyas. Vast numbers of bhils were freed from serfdom and the movement assumed massive proportions. The first time I met Mamaji in 1987, the first thing he did was to relate this story amidst guffaws of laughter. The princes began to go back to their dirty ways after some time, however, and so the struggle continued. Even after independence 'jagirdari' was not abolished and the movement was intensified with renewed vigour. Mamaji dashed off a stern letter to Nehru castigating him for reneging on his promises. Nehru had him incarcerated to Tonk jail for his pains in 1948. He was released after eight months following the intervention of the then governor-general Rajagopalachari. The jagirdari system was finally abolished only with the adoption of the new Constitution in 1951.

From the late thirties onwards Mamaji came into contact with the towering leaders of the Indian socialist movement like Rammanohar Lohia and Acharya Narendra Dev. He became a socialist too. Unlike these intellectual stalwarts, however, he remained rooted to the bhil homeland and continued to give leadership to one of the most sustained and unique but little publicised of peasant movements that this country has witnessed. The influence of this movement can be gauged from the fact that the Socialist Party swept all the seats of the region in the first election of 1951. Following independence, to emphasise the socialist character of the movement symbolically, the practice of wearing lal topis (red caps) by members was introduced. The subsequent movement, which came to be known as the Lal Topi Andolan as a consequence, concentrated on securing for the bhils the right of access to forest lands which had been denied them by the new independent government's extension of the Indian Forest Act 1927 to the region. This movement continued till the late fifties before beginning to wane.

The subsequent demise of the Lal Topi Andolan and the marginalisation of Mamaji from the mainstream political arena has a lot of lessons for those engaged in grass roots battles for the emancipation of the oppressed. Bowing to the wishes of the national leaders of the Socialist Party, Mamaji began to devote more time to electoral politics than in building up a formal, ideologically committed and cadre-based structure for the Lal Topi Andolan that could sustain it over a long period. The Congress Party and the bureaucracy soon began wooing the elected tribal leaders of the Socialist Party with various bribes. It was not long before some of these leaders went over to the Congress and took with them substantial members of the movement. Once this split was engendered, tremendous police repression was unleashed on those members who remained loyal to the movement. The movement lost its momentum almost totally in Jhabua. So terrifying was the memory of this repression that even two decades later when a process of mass organisation was again being started by us in Jhabua in the mid-eighties, we had tremendous difficulty in convincing people that fighting for their rights in an organised manner was a feasible project.

Centralised electoral politics and grass roots mobilisation around livelihood issues just do not mix. The marginalisation of the socialist challenge in Indian politics amply proves this. Erstwhile socialists have either mutated to practising mainstream politics of the Congress or the Bharatiya Janata Party variety or been relegated to the political fringe populated today mostly by environmentalist mass movements. Mamaji consistently refused to be drawn into national politics. He reluctantly accepted the presidentship of the All India Socialist Party in 1962 for a year after being pressurised by Lohia. Again after the 19-month incarceration in the emergency period, he was pressurised by Jayaprakash Narayan into becoming a member of the Rajya Sabha in 1978. He used to term the proceedings of the Rajya Sabha a farce. Yet inexplicably, despite his commitment to grass roots organisation and his scepticism about the effectiveness of the legislatures and parliament in bringing about radical change, he used to throw himself with vigour into election campaigns for candidates, who he must have known were going to lose, even when he was well past the age of eighty.

He was particularly peeved that the right to work had not been made a fundamental right in the Constitution. He once related to me in hilarious detail how he had tried his level best during his six years in parliament to try and get this done and how members of his own party had not responded. Just after this the 1989 elections for the Lok Sabha were announced and in the course of canvassing for the Janata Dal candidate, he came to our central office in a remote village in Jhabua and began exhorting us to spare no effort whatsoever. I was tempted to remind him of his recent diatribes against parliamentarians but at the sight of his intense, sweat streaked and venerable visage, suddenly the two famous lines from the Bhagvad Gita exhorting one to work diligently without hankering for any reward flashed across my mind, electrifying me from head to toe. I just took a deep breath and kept respectfully quiet.

When I first came to Jhabua in 1985 I had many rosy dreams about how an independent homeland in which bhils could hold their heads high without any fear in their minds would soon materialise. After a decade and a half of participation in mass struggles, in the course of which the various mass organisations in the region have been put through the repressive treadmill by the state, I have become today a considerably more realistic person. At times it becomes extremely difficult to sustain one's idealism in an ambience of all round decay. News of Mamaji's death at this depressing juncture, initially only served to deepen the gloom. Later, however, I recalled his ever smiling face, his incessant jokes and his untiring campaigns right up to the time he was bedridden from about two years ago. Mamaji's lifelong struggles in solidarity with the oppressed and in the face of overwhelming odds, will forever remain an inspiration for those fighting for lost causes.

GUJARAT

Attacks on Christians

Looking Beyond Communalism

Somen Chakraborty

The attacks on Christians in Gujarat have targeted the tribals who were either ignored or taken for granted by the current development model. Through the Narmada dam agitation the tribals have rediscovered their identity and found a new strength. The communal attacks are the response of the business class to this challenge from the downtrodden.

ATTACKS on Christian communities and their institutions in Gujarat during the last few months have become a major concern for the secular polity of India. The prime minister visited the violence-ridden areas of the state and proposed a national debate on the issue of conversion. The objective of such attacks seems to be to minorities and to mould the multi-religious Gujarati society into a hindutva framework.

There are a few important things to notice in these attacks. Even though attacks on minorities are evident all through the state, they are sporadic, of low intensity and damages are minimal. Secondly, among Christian institutions, those situated in rural areas have become the main targets. There are for fewer incidents of atrocities on the Christian communities in urban areas. A recent study by Nishant Natya Manch and Organisation of Women Studies found that major targets of these attacks have been missionary schools in adivasi (tribal) areas. It may be pertinent to note the demographic position of the adivasi population in the state. According to 1991 Census, out of the total population of 4,13,09,582, the adivasis accounted for 61,61,775 and the scheduled castes 30,60,358. The five districts of south Gujarat, viz, Surat (12,25,080), Bharuch (7,03,956), Dang (1,35,386), Valsad (11,81,404) and Vadodara (8,21,697) together have more than 65 per cent of the total adivasi population and more than 80 per cent of them live in rural areas [Census 1991].

Let us examine some recent attacks in south Gujarat. On October 29 the hindutva forces attacked the National Christian Conference at Vadodara. Police failed to act. Similar incidents of attacks are reported from Vyara of Vadodara district, Zanckov and Navsary of Surat district, a number of places in Dang district, Dharampur of Valsad district and also from Ahmedabad district in central Gujarat. Incidentally, except in the last few months, the attacks by hindutva forces are not directed against any specific minority community. Rather, this vandalism has been directed against the minorities of the state in general. At Bardoli, 35 km from Surat, tension mounted because of marriage between a Muslim boy and a Jain girl. In Radhikapur and Sanjeli, Muslims were attacked because one of their boys fell in love with and got married to a Hindu girl.[1]

The adivasis among the Christians have suffered the most. The majority of the victims among the Muslims are unorganised casual labourers, either self-employed or working in small manufacturing units. The Christians have been attacked on the pretext of alleged conversion of adivasis. The vandalism on Muslims are justified on two grounds – marriage of Hindu girls to Muslim boys, and selling of Hindu women to Arab countries. Ironically, poor people among minorities are the worst sufferers.

These incidents of violence have more than one dimension. Why are the attacks taking place mostly in the rural areas? Why are the adivasi communities the primary targets of attacks? And, why do they concentrate primarily in the districts of south Gujarat? An analysis of various factors would show that this communal frenzy is deeply linked with the economic crisis of the state on the one hand and the emphatic challenge by the adivasi communities to the present growth model of Gujarat on the other.

Lopsided Development

An assessment of the economy of Gujarat reveals that it has grown faster than the national economy since independence with an average annual compound growth rate of SDP of 3.32 per cent in the 1960s and 4.69 per cent in the 1970s. This growth rate was equally felt in the industrial and agricultural sectors. The number of factories increased by around 234 per cent between 1961-88. These factories are concentrated in central and north Gujarat which have railway connections with other cities [Hirway 1995]. South Gujarat was proud of its textiles industries since the days of the British. While these industries continue flourish in Gujarat after independence, there has been a continuous decline of productivity. Especially, after nationalisation, profitability of the textile sector has suffered given the growth of powerlooms.[2]

The annual growth rate of agriculture in 1960s was 2.27 per cent and in 1970s it was 4.22 per cent. The major factor for agricutural growth in 1960s was extension of cultivated land. In 1970s agricultural growth rate continued to be higher due to introduction of new fertilisers. There has been a major expansion of urban settlements. There was less than 100 towns/cities in the state (estimated on the basis of the present jurisdiction of Gujarat) at the time of independence and by 1990 the total number of towns/cities has increased to 260 along with a high urban population in the state compared to the all-India level [Bhatt 1997].

The benefits of this growth have not reached the poorest of society. Rather, it has caused large-scale pauperisation, especially of the SC and ST population. Economic growth has eaten into the natural resources which are a major source of livelihood for the tribal. Large patches of forest and fertile agricultural land in river basins have been destroyed. Expansion of urban areas has converted their agricultural land to residential plots and commercial centres. The water bodies have been used indiscriminately without considering the future sustenance of society. Since the early 1980s, the adversaries of this growth design became prominent in every sector of economy of Gujarat and by the end of the decade the overall growth rate came down from 4.69 to 4.37. Due to limited irrigational facilities and lack of necessary means to check the colossal wastage of rain water, the state experienced recurring droughts.[3] Agricultural yields declined so that by the end of the 1980s the state had a negative growth rate of -3.9 per cent [Hirway ibid]

The organised industrial sector performance was similarly dismal. The employment opportunities increased by only 81 per cent from 1961-88 which was far below the overall growth of the factories during the same period. Indiscriminate mechanisation has led to lower absorption of manpower resources in the state. Whatever employment opportunities did

come up, went to people from central, south and north Gujarat. The huge contingent of labour force, whether unskilled or skilled, whether insiders or outsiders, had small and tiny manufacturing units as the last resort for employment. A large number of this unorganised labour force are Muslims, who have migrated from far-off rural hinterlands of India. Under such pressure this sector soon had a large excess supply of labour causing an unprecedented increase in the casualisation of labour in the state. In the process a small business class, represented by the caste Hindus, emerged to dominate every sphere of life – economic, political and social.

Rapid industrial and agricultural growth, however, have neither enabled the people to become self-reliant nor have they been of any help to achieve development in its true meaning. According to the 1991 Census about 68 per cent of the SC population and 92.68 per cent of the ST population of the state still live in rural areas. The ST population resides mainly in the eastern hilly belt, while the SC population is spread over all the districts with some concentration in Saurashtra and north Gujarat. Incidence of landlessness in Gujarat is one of the highest (71.5 per cent in 1983) in India. The land is concentrated primarily in the hands of a few big landlords and the average size of landholding is more than 3.5 hectares [Fisher 1997].

Incidence of poverty is much higher among the SCs and STs. More than 60 per cent of the adivasi population, about 50 per cent of the SCs and less than 30 per cent of other communities are poor. The lack of concern of the government of Gujarat about these communities has been evident in its failure to improve the economy of the adivasi and other marginalised people in spite of various promises and commitments. Various poverty eradication programmes, meant for the SCs and STs, in fact, have benefited mainly the middlemen, bureaucrats and the politicians.

The recent communal frenzy has been mainly directed at these poor sections of the society. The purpose is to rip apart society into new economic, political and social identities. Therefore, the emergence of hindutva and the recent incidents of attacks on minorities need to be understood in the context of the overall socio-economic situation of the state.

The development process of such colonial design neither allowed the common people, nor the adivasi communities to participate in it, nor to improve their life system. Like the colonial masters, the politicians and the development planners of Gujarat have treated adivasi communities as cheap labour force and their habitation as a potential source of natural resources. Since the colonial days the forest resources in the eastern part of Gujarat, starting from extreme north to the Satpura mountains had been plundered indiscriminately. As the forests were decimated in the north-east of Gujarat, its inhabitants migrated to the south in search of forest land for agriculture. The adivasi population was pushed further into the hilly terrains of southern districts of Gujarat. They had one asset in this inaccessible mountainous regions – the river Narmada, a 1,312 km long river with unending flow of water. The river guarantees the tribals' right to life.

Exploitation of forest resources was not the only attempt of the Indian masters to destroy the adivasi polity. They were faced an identity crisis after the parliament evolved State Reorganisation Policy (1956). This policy not only shattered their self-sufficient life system. it split up their ancestral places into new states like Madhya Pradesh, Gujarat, etc, and thus the policy of reorganisation of states divided them into various artificial lingua-cultural identities. In fact, adivasi communities living in hilly terrains of the mountainous areas in the south-eastern Gujarat on the Satpura range have never accepted this new identity. These adivasis are not necessarily Christians. They are multicultural, multilingual and multi-religious society. There are bhils, bhillalas, chaudhri, kunbi, gonds, baigas and others. There are Hindus, Christians, Muslims and a large number of them profess their distinct adivasi religion.

Unfortunately, in the process of nation-building, the adivasis have been reduced from a community to labour force. The adivasi life system has been facing challenges to survival due to rapid commercialisation of forest resources, penetration of the capitalist market economy and the bureaucratic stranglehold of the state.

Narmada Project

A politically and economically dominant group take up a new development project, the Narmada River Valley Project. The aim was to ensure power supply to the factories and water supply to the residential settlements and townships of the business class. The justification of the project is based on wanton manipulation of facts and figures. The politicians and business classes of India, in nexus with the MNCs, the TNCs and the international financial institutions, led the world to believe that incidence of drought and flood over a large area of the state was due to shortage of rainfall. They related unemployment problems to the low growth rate of factories and then low productivity in factories to inadequate power supply.

The facts are that the factories usurped all the river water without allowing any provision for their future sustenance. The wastes and effluents discharged by their factories polluted river waters, silted them, reduced their flow and water storage capacity, and invited drought and flood.[4] The truth that the planners had never worked out a project to preserve run-off rain water was never disclosed. They never admitted that water shortage was the result of massive destruction of natural resources. Instead, they spread a myth of water-crisis and made the world believe that Narmada has excess water. They worked out the biggest water harvesting project on Narmada. The adivasi communities and their needs never entered the calculations.

In fact, no region can be declared drought-affected unless annual rainfall is less than 40 cm. Except in Kutch, nowhere in Gujarat is rainfall ever less than 50-70 cm annually. About 60 per cent of the drought-prone areas of Gujarat are in the north-west which is proximate to the desert area. South of Gujarat sometimes even gets more than 80 cm rainfall annually caused by the extension of the south-west monsoon. The state, by any calculation, gets rainfall almost equivalent to the average rainfall in India [Fisher ibid; Patel 1994].

Ironically, the Narmada project has never had the capacity to solve the problems of water and electricity shortage in the state. The present irrigation potential of the state without Narmada is estimated to cover a maximum of 40 per cent of the cultivated area. The Narmada project on completion will being a maximum of another 10 per cent of the cultivated area under irrigation. Open canals will not be able to make water flow up to the desert area in the western Gujarat. Therefore, the Kutch area which suffers most from acute water crisis and drought, cannot benefit from the project. The Narmada River Valley Project is, therefore, aimed at serving the already rich big landlords and industries of south and north Gujarat.

This dominating class of the state of Gujarat was able to persuade the Indian state for the Narmada project and got the approval to construct the Sardar Sarovar Dam on the Satpura mountains purpotedly to solve the water crisis of the state. The adivasi communities of the area were not made aware of what was going to happen to their life and livelihood. The foundation

stone of the project was laid in 1960. It was approved by the Narmada Water Dispute Authority in 1979. Today the project has not been completed. Among the factors which have delayed this project are people's movements, bureaucratic indecisiveness and financial constraints.

The adivasi communities living in the area were initially unclear about the effect of the project on their lives. But steadily and resolutely they put up resistance against the project. They have rejected the rehabilitation and resettlement packages offered by the state. Ultimately, the resistance by the adivasi communities, through their own local and regional organisations made the completion of the project almost uncertain. This uncertainty and delay came as a blow to the business community of the state. New projects had to be shelved. Profits have stagnated. Their ongoing commercial activities have low growth rates due to diversion of money, inadequate power supply and the demands by the displaced [Parasuraman 1997].

Tribals and Politics

Through the anti-Narmada movement the adivasi communities have rediscovered the rich heritage of their tradition, the strength of their collective identity and community power. The process of self-identification has enabled them to draw a new adivasi map as against the state-imposed political boundaries. They further consolidated themselves as adivasis, irrespective of their creed, language, clan or religion. This new adivasi solidarity by itself, is a negation of the proselytisation of these communities by the missionaries of different religious faiths. They have refused to be alienated from their collective life, language and lifestyle. They have refused to move away from their ancestral habitation. New place of habitation means new psyche new behaviour, changed occupations and altogether a different culture. This can be achieved if their existing life system is destroyed. Instead, they strengthened themseleves through new collectivity, renewed consciousness and well-knit organisations.

This unprecedented unity among the downtrodden and the oppressed, and those who are exploited, has always been considered a threat to the oppressors. Through this unity the adivasi communities of south Gujarat have resisted the Indian state and national and foreign interests on the Narmada issue. The project is one more mechanism of exploitation. Anti-Narmada movement has become instrumental in helping people express their preference for a new way of nation-building. The business communities, both of national and foreign varieties in nexus with the Indian state have used the ideology of development to continue their oppression. They have denied these people their fundamental rights enshrined in the Constitution of India. The business class and their political system have never felt comfortable seeing this emerging people's power. Their attempts to neutralise people's power have led people to challenging the ideological domain of the state. In nexus with the MNCs and the TNCs the dominant classes have tried to frustrate people in their attempts to form an ideology of development outside the ambit of the state and the global economic power.

The elite tried to depoliticise the people. They did not succeed. They offered them bribes. The people refused. They tried to call them 'misguided' or 'naxalites' [Baviskar 1997]. The communities were not shaken up. They tried to harass, torture and scare the adivasi communities. The communities stood firm. They circulated lakhs of pamphlets in south Gujarat defaming the protesters and their leaders. The people ignored them. They offered money in exchange for land. The adivasis firm on their demand for an appropriate rehabilitation and resettlement package and land rights. State actions and repressions notwithstanding, the movement of the adivasi communities continued to gather strength and widen its membership base.[5] The adivasi society is rejecting the dictates of the so-called mainstream state. A shift of paradigm of decision-making has been evident in the adivasi-concentrated rural areas of the south Gujarat.

The anti-Narmada movements for the last one and a half decades have enlivened the adivasi society and rejuvenated their rich traditions of resistance to foreign invaders. The movement has enabled the adivasi communities to reinforce their local identities and to rediscover specific histories, languages and regional specifications. The movement has thus rattled the state of Gujarat as well as the Indian state. The elite have now brought out their most lethal weapon – religion. The business classes wanted religious unity between them and the adivasi communities whom they had earlier proselytised. They used the ideology of hindutva to divide the struggling subalterns. The attacks on adivasi communities are an indication of this nexus between the hindutva forces and the business classes.[6]

This is why the recent attacks have targeted the adivasi communities. The business classes and the Indian state want to protect their own economic interests at the cost of the deprivation of the right to life of the adivasi communities. Hence, the big landlords and the business classes have used the hindutva ideology and the bogey of 'conversion' as a countervailing mechanism to keep the secular polity of our society divided and silent. In the guise of hindutva ideology they intend to suppress people's challenges to the economic policies of the Indian state.

A communal reaction to these attacks will help the gameplan of these vested interests. Therefore, what seems to be essential is the solidarity and cohesion among the secular and the pluralist masses, irrespective of caste, creed, religion and language against these new forms of state terrorism. Democratic forces from different social and ethnic groups need to come together for the common good of the struggling adivasi communities in the Narmada basin. Attempt to communalise the adivasi communities and thus to weaken their struggle against the present capitalist growth model can be combated if such a unity can be established on a minimum common programme. In this battle, either the profit-making of business community will continue at the cost of Narmada water or the life system of the adivasi communities will be protected by stopping any diversion of water from this river.

Notes

1 'Gujarat (An Indian State) Minorities in the Storm of Communal Attacks – A Report from the Religious Cleansing Laboratory of Rashtriya Swayam Sewak Sangh (RSS)', jointly commissioned by Nishant Natya Manch and Organisation of Women's Study during August 23-30, 1998

2 4,628 in 1942 to around 60,000 at present in Surat alone (*The Hindu Survey of Environment*, 1995, Chennai, The Hindu Publications, p 97).

3 During the frequent drought years the available quantity of water was 20 MAF for the population of 40 million The potential per capita use of water per day comes to 450 gallons during a drought year This per capita potential water use is about twice the per capita use of water in Israel and more than the per capita use of water in India, China and the UK However, because the present water use is not equitable, during a drought year people in large areas of the state do not even get 25 gallons per persons per day [Fisher 1997 333-34]

The reason is not successive droughts, as politicians and the proponents of the Sardar Sarovar Project often claim, but the excessive groundwater withdrawal through the mechanised pumps by farmers who switched to water-intensive agriculture due to loans and credit provided by the government (ibid 335).

4 Among the rivers in Gujarat, Sabarmati has several tributaries like Hathmati, Vatrak, Meshwo, Mahi has Bhadar, Anas, Panam and Meshro, Tapi's tributaries are Purna, Machchu, Brahmani, Hirni, Kapila, Ojhat, the Kanul; Surekh in Saurashtra and Kutch and Dhadhar

and Kim in south Gujarat. But most of them depend on the rain and for the rest of the time they remain dry [Bhatt 1997:92].

5 In exposing the undemocratic nature of statist development, the Narmada movement is contributing to the democratisation process nationally and facilitating the creation of a network that transcends national boundaries. Yet, the creation of this countervailing power yield greater repression and manipulation of those involved in resistance [Fisher 1997:441]

6 "Two prayer halls of the Christians were attacked in Doswada village in the tribal belt of eastern Surat district late on Thursday (January 21, 1999) night. In a retaliatory move two holly pillars, worshipped by tribal Hindus were attacked in Dandakwan village". *The Times of India*, New Delhi, January 24, 1999

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Patels of Central Gujarat in Greater London

Parvin J Patel
Mario Rutten

Two contradictory forces – a spirit of enterprise and a tradition-bound status-consciousness – led the patels of central Gujarat first to Africa and then to the UK. Today they are successful shopkeepers, businessmen and professionals in the UK. But they also worry about keeping their language, culture and links to India alive.

ALTHOUGH emigration from the Indian subcontinent to foreign lands is an age-old phenomenon, emigration to western countries of Europe and North America is relatively recent. Today about two million persons from south Asian origin reside in Europe, the US and Canada. More than half of them, i e, about 1.26 million live in the UK, out of which one million are Hindus. Geographically, the Indian immigrants in the UK are concentrated in the urban counties. The largest number, i e, about 36 per cent of the total Indian population is settled in Greater London. Among the Indians the Gujaratis and the Punjabis constitute the largest number. About 35 per cent of the Gujaratis must be patels, the rest belong to vania, lohana and other castes. Not surprisingly, therefore, patels and singhs are the best known Indian surnames in the UK.

Gujarat is one of the most prosperous states of India. Since it has a coast, it has a long tradition of overseas trade. Gujarati businessmen have been active in Africa since the 13th century. They have been reputed bankers and moneylenders, most of them being Muslims. From among the Hindus of Gujarat, the patels, also known as patidars, of central Gujarat or Charotar have emigrated in large numbers. Charotar, the major part of central Gujarat, the area which lies between the Mahi river to the south-east and Vatrak river to the north-west, is the heartland of Gujarat. It was also formerly known as Kheda district and only recently divided into Kheda and Anand districts. There may not be a single village from about one thousand villages of Charotar from which at least one patel family has not migrated. There are some villages from which more than half of the patel families have emigrated. These patels, a middle-ranking peasant community, are upwardly mobile and highly status-conscious. With about 15 to 20 per cent of the population, the patels form a substantial minority who have been able to acquire economic, social, and political dominance in the region and the state since the early 20th century. During the British regime in India the patels of Charotar were highly respected for their industrious nature and sense of loyalty.

The emigration of patels began in the late 19th and the early 20th century, first to east Africa and then to the rest of the world. In east Africa, initially most of them took up jobs in railways and other civil services. There were so many patel employees in the east African railways, that it was also known as patel railways. Some of the patels, however, also started doing business there.

There is an element of truth in the argument made by some scholars like David Pocock that factors like famine and plague forced some members of this agricultural community to go to the east Africa in search of a livelihood. However, the role played by other social factors in pushing them out of their homeland cannot be ignored. In this connection some important social customs of this proud and upwardly mobile community need to be mentioned. One is the custom of inheritance. By this custom the property, mainly agricultural land, of a patel is equally divided among all his sons. As a result, the land, which was quite fertile, was increasingly divided from one generation to another generation to such an extent that at a particular point of time it became uneconomical for reasonable sustenance of many families. This naturally forced some such families to look for other alternative economic activities either within the country or outside. In addition, other social customs related to marriage, namely caste-endogamy, village-exogamy, hypergamy, and dowry also gave an impetus to emigration. Caste-endogamy implied marriage within the caste. Village-exogamy implied marriage outside the village. Hypergamy means a girl of a patel family must marry either into an equal status family or preferably a higher status family. In other words, a boy can marry a girl of the lower status patel family, but marriage of a girl with a lower status patel family is forbidden by custom.

Further, all patel families living within a village and all villages of the area are not socially equal. Therefore, most of the villages of the region are organised into marriage circles or 'gols' like: six villages ('chha gaam'), five villages ('paanch gaam'), 27 villages ('sattavis gaam'), 22 villages ('bavis gaam') and so forth. All these marriage circles are hierarchically organised in terms of their social status which largely depends on the size of the village, fertility of the land, and relative wealth of the village. For example, the six villages (chha gaam: Bhadran, Dharmaj, Karamsad, Nadiad, Sojitra and Vaso) are commonly accepted as big villages ('mota gaam'). They are not only large in size but also relatively wealthy and urbanised and,

therefore, commonly accepted as highest status villages. The patels of these villages are relatively more educated and sophisticated. Marriages generally are allowed within the circle. However, due to hypergamy a boy of six villages can marry a girl from any village but a girl of six villages must marry within the six villages. This also means that a girl of lower status village circle can marry a boy of a higher status marriage circle, which implies upward social mobility of the girl's family, but not the downward social mobility of the boy's family. This custom generated a competition in this highly status-conscious community to get their daughters married into the higher status families/ village circles and encouraged a related custom of dowry.

The dowry, which was originally a custom to give the share of a patel's property indirectly to his daughter (since by the custom of inheritance only sons inherited their father's property), over a period got vulgarised due to the customs of hypergamy and consequent status-seeking competition among the parents of girls. However, an unintended consequence of dowry was that it encouraged the members of this proud community to earn more money and save as much as possible to display their status at the time of a daughter's or sister's marriage by spending lavishly not only in the form of dowry but also in other forms of conspicuous consumption such as marriage feasts and related fanfare accompanied by elaborate decoration and music.

However, due to famines and increasing division of land, agriculture, which was the main source of livelihood, had become unproductive and economically unviable for the sustenance of many families by the late 19th and the early 20th century. Therefore, some of them decided to migrate in search of greener pastures so that they can earn enough to see that their daughters and sisters marry with well-born boys. Coincidentally, around the same time plenty of economic opportunities were available in east Africa. As a result, many patels started going to east Africa. But, when these east African countries became independent and initiated the process of Africanisation they were again forced to leave these countries. Most of them chose to settle down in the UK though the climate was not suitable to them. Social customs forced them to search for better economic opportunities, which they did not see in their homeland. Therefore, today we find sizeable number of patels in the UK. Thus, the social customs played a more important role than the economic factors in pushing them out of their country which explain their social life in the UK today.

Most of the patels, settled in the UK in the 1960s and the 1970s, are twice-migrants. First they went to the east African countries and then they migrated to the UK. They came in the UK in two major waves: (i) in the mid-1960s from Kenya, and (ii) in the early 1970s from Uganda. There is a slight difference between those who came to the UK from Kenya and those who came from Uganda. One of the reasons for this difference seems to be in the pattern of migration. It appears that due to higher education, greater urbanisation, and grater exposure to the outside world the patels of the big villages started emigrating earlier from the highest status six villages. For example, in the village directory of Karamsad, one of the six villages, it is stated that the first patel to arrive in east Africa was Maganbhai Patel of Karamsad. He reached Kenya in 1896 facing many odds. He also encouraged and helped many of his kinsmen to emigrate and settle down in Kenya. Fear of losing status by their inability to marry their daughters and sisters in the equal status or higher status families within their own marriage circle of six villages may also have compelled them to look for better opportunities earlier.

Most of the patels who emigrated early went from these six villages and settled down comfortably in Kenya, since Mombassa was the first port to land. Later they started encouraging their relatives who were interested in migrating to join them. Now, due to hypergamy some of their relatives, particularly the in-laws (marriage/affinal relatives), were also from other marriage circles. Therefore, slowly patels from small villages also started emigrating. Later as they found opportunities in Uganda gradually they started moving to Uganda also. Thus, it seems, the majority of patels who settled down in Kenya were from big villages and among those who settled down in Uganda the proportion of the patels from relatively smaller villages is higher. This reflects a relatively invisible but nevertheless significant status difference within the caste, as the patels of big villages are of higher status than those of small villages. Therefore, most of those who came from Kenya to the UK were relatively better-off and higher status patels than many of those who came from Uganda. Moreover, the patels of big villages who had migrated earlier to Kenya also had a stronger tradition of retaining linkages back home than those who came later and settled in Uganda due to various socio-historical reasons. This different tradition of maintaining linkages back home in India seems to be reflected in these two groups even in the UK.

Another reason for the difference between those who came from Kenya and those who came from Uganda to the UK is in the manner in which they came. Those patels who came from Kenya could plan their migration as they could anticipate well in time the consequences of Africanisation. Therefore, they could also transfer their wealth to the UK relatively easily. On the other hand, most of those who came from Uganda were expelled and, therefore, came as political refugees. What was, however, more shocking to many of them than the sudden and unexpected expulsion from Uganda by Idi Amin was the lukewarm response to them by the Indian government. In those days the Indian government did not realise the importance of the so-called non-resident Indians (NRIs). Therefore, many of those who have settled down in the UK, after being expelled from Uganda, ironically interpret the term 'NRI', much trumpeted by the Indian government of late, as 'non-required Indians', and their bitterness is also reflected in their lack of enthusiasm in maintaining linkages back home in the form of investments in India.

However, whether they have come from Kenya or Uganda, the patels have carved out their niche in the UK. They are respected for their hard work, honesty, loyalty, enterprising nature, and business acumen. They are also often envied for their extraordinary success in trade and other economic activities in a very short time, where they had to compete and survive not only with the white community but also with the other business communities of India such as vanias, lohanas, ismailis, and Sikhs, among others.

According to a study by Michael Lyon and Bernice West, about 90 per cent of the businessmen belonging to the patel community of London are involved in independent retail business, such as corner shops. Nearly 70 per cent of patel firms in London sell newspapers, confectionary and tobacco. About 20 per cent of patel shops sell drinks, grocery, etc. About 10 per cent patel businessmen are professionals like pharmacists, accountants, opticians, dentists, etc. The patel shops are spread all over London. Nearly 50 per cent of the patel firms in London are located at their place of residence, having the shop on the ground floor and the family living above it.

It is observed that in many cases both husband and wife run the shop in rotation. Some of them are not very fluent in English

language though their clients are mostly whites, blacks, and non-Gujaratis. However, they manage to communicate with their customers pleasantly with limited command over English language. When their children grow up they also start helping their parents, particularly the sons.

It seems that most of the first generation patel migrants, who could not get respectable jobs, for one reason or the other, turned to business like corner shops selling confectionary, tobacco, newspapers, grocery, etc, sometimes also a sub-post-office. However, the children of the first generation migrants who are born and/or brought up in the UK have started entering professional businesses.

One of the secrets of the success of patel shops was their willingness and ability to work hard from dawn to dusk. Their pleasant and cheerful manners added a personal touch to the business. Now, however, since the 80s the corner shops and post-offices have started losing business very fast. The corner shops are losing business due to the so-called super market revolution. Not only have the super markets come up in large numbers but they also remain open for longer hours. Besides, since they buy their goods in bulk, they can sell them at cheaper prices as compared to small shops. In addition, the advantage of the super markets is that they sell all necessary items required by an average customer at a single place. For all these reasons the super markets have gradually pushed the small shops in the background. As a result, many owners of these small shops have to work very hard to survive. The post-offices are also losing business because now they do not have monopoly over selling stamps, nor do they retain monopoly over disbursing the social security money. Moreover, the revolution in modern media of mass communication has marginalised the utility of post-offices. For all these changes the small shops of patels are not as economically viable as they were in the 60s and the early 70s. Yet, they have some advantage in ethnic business like saari shops or Indian spice shops which are likely to survive for quite some time due to personalised customer-oriented relations and also due to the Indians' desire to retain their ethnic identity. But in this business also they have to face competition from other Indian communities.

The patels, however, are known for their independent entrepreneurship, powerful family loyalties, pragmatic nature, achievement-orientation, and strong instinct of survival against any adverse situation. This gives them resilience against the changing circumstances. Not surprisingly, therefore, some of them, who think that there are better opportunities in the US, have started moving from the UK. However, due to better social security in the UK, as compared to the US, this kind of movement is very limited.

The most remarkable peculiarity of the patel community, however, is that though they are ever willing to adapt to the constantly changing external economic environment, they maintain strong internal integration with reference to their social life. Therefore, they have retained their identity by organising themselves in terms of their ancestral villages of origin and marriage circles. They have formed the associations based on their villages like Bhadran Bandhu Samaj, Karamsad Bhandu Samaj, etc. And some of them have also formed associations based on their marriage circles ('gols') such as Shree Sattavis Gam Patidar Samaj. The village life in India had a profound effect on the first generation migrants. Their formative years were spent in their villages, where they studied. Moreover, they grew up at a time when the national independence movement awakened the pride of ancient Indian culture and its heritage. Therefore, the social identity of the patels is deeply embedded in village life which was highly intimate, co-operative, intense, and amicable. The religious and cultural bonds further cemented those ties with village people which they remember with nostalgia. Therefore, for the first generation migrants the ties with their relatives, villages, and country have romantic value and hence are quite powerful. They consider themselves British citizens and yet they think they are the self-appointed ambassadors of India to the UK.

However, the same is not true with their children and grandchildren. They identify themselves relatively more with the British society and western culture. As a result, the biggest anxiety of the patels in the UK is how to reclaim the second and third generation. They encourage them to learn the Gujarati language. This problem, of course, is not only of patel community. The entire Gujarati community of the UK is now becoming conscious about teaching their children Gujarati. The children are mostly able to understand functional Gujarati. But they find it difficult to speak, read, and write the Gujarati language. Therefore, now the community has started making organised efforts to teach Gujarati. There are about 500 classes teaching Gujarati language all over the UK, teaching it two hours a week on Saturdays and Sundays. About 1,000 to 1,500 students appear in Gujarati language examinations each year. Secondly, to retain Indian culture and their religion the parents are also anxious to orient their children to the religion. They participate with family in all important religious activities.

However, the most important problem of the patel community in the UK is the marriage of their children. Village-based associations and organisations of village-circles are very important to them. Many of them bring out directories giving details of all family members which are mostly used to arrange marriages. These associations also organise marriage-melas, in which young boys and girls publicly introduce themselves and try to find suitable life-partners. This kind of arrangement, however, is too formal and awkward for the younger generation. Therefore, dinner-and-dance parties are becoming more popular. However, parents become anxious about such parties thinking that the children will take undue liberties. But, on the other hand parents are worried about becoming too conservative and strict with their children. Instances of inter-religious, inter-racial marriages are increasing. The problem, however, seems to be rooted in their concept of traditional Indian culture and Indian family life. They want their children to be loyal, obedient, and caring for their parents. The elders want to be respected and looked after by their children in their old age and, therefore, they want to inculcate traditional family values such as being loyal to one's parents and siblings, helping their relatives back home, loyalty to the village in general, and patel community in particular. Keeping these goals in mind the village associations and marriage circle associations organise several functions celebrating Navratri, Diwali and other important festivals. They also have dinner-and-dance parties, where they eat, drink, and dance to the tunes of Hindi songs. In some cases they have youth committees in which youngsters are involved and encouraged to organise and participate in various activities.

Thus, on the threshold of the 21st century the patel community of the UK seems to be at the cross-roads in every sphere of life. On one hand, it is becoming trans-national and extending its links in different countries of the world from India to the US. On the other hand, it is struggling to maintain its traditional culture by reclaiming the younger generation. It is difficult to predict the outcome. But considering at its enterprising nature and resilience, the community is likely to throw-up innovative adaptation strategies.

A Dissent on 'Fire'

C M Naim

Once the film 'Fire' was attacked, it became a liberal cause and defending artistic freedom and countering the hindutva forces claimed all the energies of progressive commentators. Most of the defenders of the film followed the lead of the protesters and pitted their own version of Hindu culture against that of their adversaries. Hardly any considered the issue as a human condition. It is now time to present a dissent on the film itself.

THE video copies of Deepa Mehta's 'Fire' available for rental in video stores in the US since January prominently announce on the back: 'Banned in India'. The fact is it was never banned. Except for Delhi and Mumbai, where its screenings stopped after two violent demonstrations, 'Fire' continued to be shown in several major towns in India, including Lucknow, the capital of Uttar Pradesh where the Bharatiya Janata Party has ruled since December 1997. I saw it there in a packed hall two weeks after the trouble in Delhi on December 4, 1998. In fact, it ran in Lucknow for many more weeks, four shows daily, with an average of 80 per cent attendance much of the time. But the American distributor knows what will sell the film locally, and so does his Indian counterpart. According to the *The Times of India* of February 24, 1999, the Indian distributor, J Sughand, carried out the changes 'suggested by Mr Thackeray', and the film was to be screened again 'from Friday onward'. (Unfortunately, the report did not indicate what changes were 'suggested' by the Shiv Sena leader.) Another report in *India Abroad* (March 19) indicates that the Censor Board, after reviewing the film, again did not ask for any cuts. Nothwithstanding all this, I have no doubt that the film's videotapes will soon be available for purchase at a discount here in the US, still proclaiming: 'Banned in India'.

Mehta's film was much written about in December and January, mainly with reference to the two protests against it in Delhi and Mumbai by people who described themselves as defenders of Hindu/Indian religion and morality, and who condemned the film for showing two Hindu women become lesbian lovers. The press identified the protesters, mostly women, mainly as members of Shiv Sena, a right-wing group politically allied with the ruling Bharatiya Janata Party but also engaged – at the time of the protests – in a tussle with it for power and bounty in Mumbai and Delhi. (Bajrang Dal, a sister organisation to BJP and the other group mentioned in the news in connection with the protests, likewise felt itself being marginalised by prime minister Atal Behari Vajpayee and his particular supporters within the Hindu nationalist political family generally referred to as the Sangh parivar.) Before the protests, there had been the usual reviews and notices, all, to my knowledge, laudatory. They particularly praised the film for presenting female homoerotic feelings on the Indian screen for the first time. None found anything wrong even in the manner those feelings had been packaged. Than the two protests three weeks later turned the film into a liberal cause. The dual projects of defending artistic freedom and countering the self-appointed protectors of Hindu family values and culture claimed all the energies of progressive commentators and activists in India and the diasporic Indian media in the US.

Now that some time has passed and the film is back on Indian screen – that is what counted then and also counts now – a dissent on the film itself, I hope, might not be unwelcome. My comments below are arranged under three headings: (1) the audience of the film and its reactions to it during the viewing I attended at Lucknow; (2) the film, and its alleged main concern, lesbianism; and (3) the protests against the film, and the reactions to the protests.

The Audience

As will become clear in my subsequent comments on the film itself, it is important to bring quite explicitly into any discussion of 'Fire' the Indian audiences of the film and their actual or possible reactions to it. I saw 'Fire' in December in Lucknow. It was in its sixth week of release in a large movie house in the best part of the city, with four daily shows. I went to the first show, at 1 pm. The cheapest ticket cost Rs 15, the most expensive Rs 40. Nevertheless, all sections of the hall were almost entirely full.

I sat in the balcony, the 'best' seats. There were quite a few women there, all seemingly accompanied by men. A few couples as they came in were loaded with bags and bundles of purchases. One couple in their thirties came in carrying suitcases, as if they had broken their journey just to see the film. No woman was dressed in jeans, though many men were. I could not be sure if there were as many women downstairs too. From where I sat I could see only the cheapest, front section below, and that seemed to be an all male crowd.

Once the movie started it soon became clear that there were many in the audience, particularly on the main floor, who had come a second time. As commonly happens in India, or at least in north Indian movie houses, the audience frequently anticipated the narrative by making loud comments and by noisily jeering or cheering some still unfolding scene. (These loud vocal responses were by no means restricted to the 'lower', i e, cheaper, sections.) As I jotted down soon after, the jeers were mainly aimed at the pastoral memory bits and two 'unmanly' husbands who could not 'control' and 'satisfy' their respective wives – more particularly at the older brother when he discovered the two women in bed but did not physically assault them, as the audience noisily urged him to do, or when he visited his swami mentor and massaged his leg, at which time some in the audience loudly expressed their desire to do unmentionable things to both men. The cheers, equally loud, came for the servant's masturbation scenes and the assault by the younger brother on his wife, and also when the two women separately denied intimacy to their respective husbands.

Clearly a great many men in the audience found much sexual excitement and voyeuristic pleasure in the film, which they expressed with exuberance. At the same time, I heard no comment, either during the screening or while coming out of the theatre, that could be called a denunciation of the film itself. It was clear that a good time was had by all, that everyone's expectations had been well met.

No doubt one should not draw too many inferences from what happened at one screening, but an awareness of what transpired at that occasion would help the reader understand my response to the film. Secondly, it is also important to put on record my impressions of that one audience because several defenders of the film made a point to report that, at Delhi showings, no catcalls and voyeuristic giggles, 'even from the frontbenchers', were to be heard. Obviously, the matter of audience response is of some signifi-

cance. To my mind, it directly relates to a number of critical issues. How can one be explicit in representing sexuality without the representation being seen as pornography? What is the social context in India of a film that tries to do that for lesbianism? Equally importantly, for my particular purpose here, what is the 'filmic' context of such a film there? How will such a film be 'read' by an audience accustomed by years of Bollywood Hindi films to having its expectations met in certain ways?

The Film

I must begin by stating that the film grabbed my interest from the beginning and held it all the way through, primarily due to the superb performances of Shabana Azmi and Kulbhushan Kharbanda. Azmi, with her amazingly expressive eyes, again uses silences to delineate more subtleties of feelings than any dialogue ever can – I kept thinking of her role in 'Ankur' Kharbanda, whose task is the more difficult because he must work against the sympathies of the audience, is equally riveting as he communicates through speech and body language a tragically faulted but complex personality. The younger actors in the ensemble also hold their own in such demanding company. Deepa Mehta, the director, must be congratulated for getting these performances.

The film's story deals with a middle class Hindu family in Delhi, living perhaps in Karol Bagh or Lajpat Nagar. The family consists of two brothers, their mother, their wives, and one male servant. The brothers own a fast food place, above which they live. The younger brother also runs a video rental business on the side. In other words, the folks have both property and money, but they are not the 'modern' kind who would have moved to a fancier housing colony. Their lives revolve around the business – though the men do have outside interests, the wives work in the food store, as does the servant/cook, and do not venture away from home on their own.

All is not well, however. The older brother, Ashok (Kharbanda), has been married to Radha (Azmi) for several years, but they do not have a child because Radha has 'no eggs in her ovary'. As a result, Ashok has submerged himself entirely in a kind of personal-devotional religion. He is being 'good' in his own way – he has not sent Radha back to her parents, nor has he taken another wife, but the couple no longer have sex. The brothers' mother lives with them, but she is an invalid – though alert to the world around her, she can neither move nor talk. The servant, who lives with the family and who is not allowed any time away from it, is often asked to take care of the mother by himself, at which times he watches pornographic videos – the younger brother keeps them in his collection to rent to school boys – and even masturbates in the mother's full view. As the film opens, the younger brother, Jatin (Jaaved Jaffrey), who is infatuated with a Chinese-Indian girl, has just married Sita (Nandita Das) – she is named Neeta only in the Hindi version – but he utterly neglects his lovely wife on their honeymoon in Agra. Their marriage is consummated – it is more like rape – only later in Delhi. Thus, what appears as a 'respectable' and 'normal' middle class family is in fact seething with sexual frustration.

The focus on Sita continues in the second sequence, when the honeymooners return to the family home in Delhi. After the men leave, Sita goes into her and Jatin's bedroom. There she puts on Jatin's jeans and dances wildly to western music until Radha knocks on the door and gently rebukes her. Thus by the end of this sequence we have rather forcibly been told that Sita speaks English, can wear jeans and dance to rock music, and knows about sex though still a virgin.

Here it may be important to remember that Mehta, a resident of Canada, originally made the film in English, and only subsequently dubbed it into Hindi. There is a certain problem inherent in such a process. When the language of a film set in India in English, watching the various characters interact solely in English requires from the audience, a suspension of certain expectations of 'realism'. In which case, the odd Hindi word or phrase thrown into the English acts only to create a semblance of linguistic realism, *without any reference to social categories*. In other words, the Hindi mixing with English enhances realism in terms of the Indianness of its characters, and not in terms of their class origins, education, or cultural orientation and values. On the other hand, given the status and prevalence of English in India, a radically different effect is produced when English words, phrases, or short sentences are thrown in with realistic Hindi dialogue. Now the English tidbits indicate status, 'modernity' and 'westernness' – another well known convention in Hindi films. Consequently, the ease with which Sita uses English only adds to her being perceived by an Indian audience as a 'modern' girl.

This impression is enhanced by what happens in the most explicitly sexual scene in the film, the very first physical contact between the two women. Radha comes to a distraught Sita, and tries to be consoling by assuring Sita that things would soon work out between her and Jatin. Sita replies, 'No, it's not that'. Then she leans forward and kisses Radha full on the lips. What are we to conclude? Evidently Sita has already been attracted to Radha. She understands her own homoerotic feelings and is not surprised by them. In other words, she knows about lesbian love. That, in the English version of the film, would imply to its audience in the west that she was married against her wishes, in fact against her sexual orientation, while to the audience of the Hindi version she would only appear more negatively 'modern' – she knows about 'these things' too. These twin images of her are further confirmed when she alone repeatedly initiates physical contact, eventually bringing about the final crisis. In another scene, Sita puts on western male clothing to dance with Radha, which not only affirms this perspective but also underscores her 'manly' role in the relationship as perceived by the writer-director.

Thus in terms of the established markers in Hindi cinema, Sita is no innocent soul; she, in fact, is a 'modern' or 'westernised' girl, who, according to the convention, can be at best a misguided person and at worst an evil vamp. Further, in terms of the rules of expectations in popular Hindi films, she comes into a 'decent' family and, true to her screen image, destroys its precariously held balance once her own sexuality is denied by her husband.

To my mind, therefore, the Hindi film 'Fire' – the Hindi version retains the English title – projects two, and only two, conclusions about lesbianism:

One, female homoeroticism is 'caused' by a denial of women's natural heterosexual desires, i e, a sexually denied heterosexual female becomes a lesbian. That was also the curious message in the Urdu story, 'The Quilt', by Ismat Chughtai, which has been much translated and uncritically anthologised as perhaps the first modern Indian story on this subject, and which was quite ignorantly mentioned by at least one mewsmagazine writer as the film's source (*Outlook*, December 14, 1998). Two, lesbian love is a 'western' thing – girls who speak English, wear jeans and dance to rock music are more likely to be so inclined than a girl who is 'truly Indian'.

In other words, on the issue of causality, the film simply reinforces the general belief that homosexuality is not natural, that it has social, not biological, causes, and that given proper education and environment, it can be 'cured' by any worthy member of the opposite sex. The latter was exactly the sentiment expressed by several members of the audience in Lucknow when the two wives refused to have sex with their husbands; the hecklers denounced the husbands as 'weaklings', and loudly proclaimed their own sexual prowess and physical endowment. This, of course, is one of the favourite themes in pornographic writings in Hindi, where often a 'well-endowed' heterosexual hero 'cures' coeds and neighbourhood girls of this

'unnatural' habit. It has a long history too. In Urdu, Sa'adat Yar Khan Rangin had his hero do the same in a late 18th century poem.

My second problem with this film is in regard to its reinforcement of some of the prevailing and not so pleasant concepts of 'manliness' and 'Indianness'.

Jatin neglects his dusky Indian wife because he is infatuated with a fair-skinned Chinese girl, who has no desire to marry him – she hates joint families, and she wants to work in Hong Kong films. She also has a brother who hates India. In a scene in a Chinese restaurant, the brother makes several denigrating statements about India and Indians. Jatin listens silently and does nothing. To an Indian audience, he thus proves himself once again to be 'impotent' or 'unmanly'. (His refusal/inability to make love to Sita on their honeymoon; the eventual, quite embarrassing consummation of their marriage; his failure to control the Chinese girl – these are the other several 'unmanly' things that Jatin does.) The 'westernised' Chinese girl, who practices 'free love', thus becomes a second negative female in the film, reinforcing all the existing prejudices. One fails to understand why Deepa Mehta chose to introduce these Chinese-Indians in her film. Was she unable to conceive of a 'regular' Indian girl having an affair with another Indian? Bear in mind that strong anti-Chinese sentiments have existed in India since 1962, when Indian army lost to the Chinese in the Himalayas and much harm was done to the local Chinese in Calcutta and elsewhere.

And what is one to make of the servant? His life is very lonely and very hard. He works in the shop and in the house, just like the two wives. And like them, he too does not get any chance to get out into the larger world. In fact, he is more housebound than the wives; he must take care of the invalid mother when they go on shopping trips and such. So he passes time watching sexy videos and masturbating in Maji's presence. Is he just another despicable male, or is he an exploited human being? Or is there a parallel suggested here between him and the two women: they are all exploited and rendered sexually frustrated by the two brothers.

Perhaps the idea is to suggest a profounder parallelism, that between class-based and gender-based oppressions, and the sadly frequent inability of the victims of the one to stand in solidarity with the victims of the other. Perhaps. Such easy profundity is also attempted at (1) by bringing in several disparate cultural 'texts' in the form of 'Ram lila', 'katha' and 'qawwali', which are supposed to be metaphoric adjuncts to the film's main narrative in an attempt to raise it beyond the story of two contemporary women; (2) by naming the two wives Sita and Radha, and by linking the elder brother's religiosity with his denial of Radha's sexual feelings – he starts on his devotional path when he learns that Radha cannot bear him a child; (3) by naming the film 'Fire' and making repeated references to the ordeal-by-fire that the Sita of *Ramayana* had to undergo due to the societal concerns of her divine husband, Rama; and (4) by situating the union of the two women at the end of the film at a brightly lit but empty shrine of the great 13th-14th century sufi saint, Hazrat Nizamuddin Auliya.

The last, I must confess, refused to reveal its purpose to me until I read Shohini Ghosh's 'From the Frying Pan to the Fire' in *Communalism Combat* of January 1999. Ghosh teaches video and television production at the distinguished Mass Communications Research Centre, Jamia Millia Islamia, New Delhi, and her article originally appeared in the *Journal of the Indian Institute of Advanced Studies*, Simla. According to her: "Radha and Sita are reunited at the shrine of Hazrat Nizamuddin famed for his intense and homoerotic bond with the legendary poet Amir Khusro. The film ends with the women in embrace within this symbolic space." (And here I had thought that the Chishti saint was actually famous for his piety, and that people, Muslim and non-Muslim alike, went to his shrine in the hope that he would work a miracle for them.)

This last 'profundity', however, is the more egregious; it not only terribly distorts Sufism, it sets up a totally false and possibly dangerous dichotomy between Hinduism and Sufism/Islam. The former becomes all cold, unfeeling and hypocritical; the latter all warm and caring. Perhaps, as another Shohini Ghosh might declare, Deepa Mehta meant the initial visit to the Muslim sufi shrine and the final meeting in it to be a secular 'intervention', an anti-communal gesture. In that case, I'm afraid, Mehta seems to have ended up merely communalising her own otherwise valid critique of Indian masculinity – and for nothing. As everyone knows, Islamic patriarchy is no less oppressive of women than the Hindu version. Mehta's need to find an alternative 'symbolic space' for the two lovers could have been more properly served if she had looked into some of the 'bhakti' and other devotional traditions available within the umbrella of Hinduism.

The Protests

When the film was presented to the Censor Board of India, they made only one suggestion: change the name of the younger woman in the Hindi version, from Sita to Neeta. That the English version, however, was allowed to be shown in India without any alteration is clear from the review by Nikhat Kazmi which appeared in the *The Times of India* of November 15, 1998, in which she repeatedly referred to the character played by Nandita Das as 'Sita'. The two attacks by the Shiv Sena men and women occurred on December 4, three weeks later. The screenings in Delhi and Mumbai immediately stopped, but continued elsewhere – even when the film was sent back to the Censor Board for a second look. The movie, no doubt, was released in a limited manner, as is the case with off-beat movies in India, but more extensively than had been the case, say, with the movies of the New Indian Cinema earlier. It was simultaneously released in many major cities all over India and was screened four times each day of week – those earlier 'new' movies were mostly shown once a day, in special morning screenings, and hardly ever in several cities at the same time.

The charge against the film came down to two counts: (1) its alleged promotion of lesbian love, and (2) its alleged attack on Hindu faith by naming the two women Sita and Radha. Bal Thackeray, the Shiv Sena supremo, while denying that he instigated the demonstrations, thundered: 'Lesbianism is not Indian'. He then asked: why were the women named Radha and Sita, and not Saira and Shabana? (The reference being to Shabana Azmi and to Saira Bano, the actress wife of Dilip Kumar (Yusuf Khan) – Kumar had demanded judicial action against the violent protesters – both belonging to the Muslim community.) To my best understanding, the Shiv Sena-led attacks in Mumbai and in Delhi, where they were supported by Bajrang Dal, were primarily political moves – a way to flex their muscles – aimed against the BJP, with which both were having problems at the time. It was their way to appear 'holier' than the BJP and be openly threatening at the same time.

Most of the defenders of the film, however, followed the lead set by the protesters and pitted their own version of Hindu culture against Shiv Sena's and Bajrang Dal's. According to the defenders, lesbian love was as 'Indian' as Kama Sutra, Khajuraho, and Sanskrit court poetry. Hardly any considered the issue in terms of the human condition, that homosexuals, male and female, could be as helpless and normal in their desire and orientation as any so-called 'normal' heterosexual. Perhaps that is why at least one lesbian activist group in Delhi called 'Ekangi' is reported to have stayed away from taking a public position on the film.

[I wish to thank Kamala Visweswaran and Sheldon Pollock for their helpful comments.]

Tribals and Dryland Development

M V Nadkarni

India's Drylands: Tribal Societies and Development through Environmental Regeneration by Mihir Shah, Debashis Banerji, P S Vijayshankar and Pramathesh Ambasta; Oxford University Press, Delhi, 1998; pp xi + 322, Rs 525.

THIS is an ambitious book, which tries to bring together and integrate the following points (not necessarily chapterwise):
(i) India's drylands which constitute a major part of the country, face the twin problems of environmental degradation and poverty. Green revolution has not solved these problems and has in fact aggravated the crisis on account of over-exploitation of groundwater.
(ii) The tribals living in these drylands are the worst hit by ecological degradation and by the failure to integrate them into economic and social mainstream of the country.
(iii) Theory as well as policies based on neoclassical economics and market-oriented strategies cannot solve these problems.
(iv) 'What market forces, cannot do, what the private sector will not do, the state must'. The book argues in favour of a 'massive state intervention, albeit in a completely redefined form and context' to solve the problems of unemployment and poverty.
(v) The ad hoc or piecemeal programmes of employment generation cannot achieve much. On the other hand, a programme of environmental rehabilitation of drylands and 'a biomass-optimising growth strategy based on total watershed plannings (TWPs)' is more suitable. 'TWP recovers the crucial link between economy and environment'.

Thus, the focus is on the inter-connected problems of drylands regeneration, uplift of the tribals, and solving the problems of unemployment and poverty, through an ecologically sound growth strategy. The arguments are made in a forceful and refreshing manner, and are intended not only for cold academic analysis but also mainly for policy formulation. In the process, a lot of useful information is also presented.

The author's special concern is with the tribals of drylands. A little over half of India's tribal population live in dry regions, including hills and dry forests. It is noteworthy that the authors have lived with the tribals, participating in their development and know their problems first hand. They have observed how the irrigation-intensive strategy of green revolution has bypassed the dryland tribals almost completely. It led to neglect of the problem of soil erosion and of dryland development. The authors describe a 'menu of technologies' which can take care of these problems. These technologies are of two types: one addressed to soil and water conservation, water harvesting, erosion control and soil enrichment; and the other addressed to dryland cropping system – involving both annual arable crops and perennial fermenial crops including agro-forestry. The authors argue that these technologies provide a key to dryland development, employment generation and removal of poverty in dry regions.

Though the authors have advocated state intervention, they emphasise that dryland development through the above technologies can be achieved only through people's institutions. They observe that unfortunately the pre-existing power structures of rural India have stymied the initiative of the panchayat raj institutions (PRIs). These institutions, according to them, need both (a) 'a powerful grass roots initiative towards a pro-poor alliance, deeply sensitive to the women's question'; and (b) 'a strong thrust towards technical capability enhancement...' The authors believe the NGOs can play a useful role in providing both these inputs (pp 292-93).

The book is a very useful contribution to understanding the problems of dryland areas. However, it has a few limitations. Though the study makes a strong case for state intervention, it does not clarify how, in what form and who what extent it has to be provided. This is particularly important because the authors also discuss the limitations of PRIs and emphasise the role of NGOs. Moreover, what about the limitations of NGOs themselves and the problem of making them accountable?

Secondly, the problem of poverty and unemployment in dryland areas is sought to be solved within the framework of agriculture alone, including agro-forestry. Admittedly, agriculture will have a major role in this. Afterall, it is important to make dryland agriculture absorb more manpower and also make it less vulnerable to droughts. But drylands also need diversification of their economy and reduction in the pressure of population on agriculture and agro-forestry for livelihood. Diversification can make their economy less vulnerable to uncertainties of weather, by providing alternative sources of employment. Dryland villages and regions which have succeeded in developing rural industry and the service sector including education and health, have been able to reduce their poverty levels much better than other regions which continue to depend on agriculture alone. It should be conceded, however, that tribals will benefit mainly from sustainable development of dryland agriculture and agro-forestry. But by dissuading non-tribals from competing with tribals in agriculture and forest sector, this sector can be increasingly reserved for tribals, and employment opportunities outside agriculture be increased both for tribals and non-tribals.

The book is written at a general and impersonal level. It does not refer to personal experiences of the authors about the tribals with whom they had lived and the problems they faced and solved. There are no case studies or illustrations to bring out the point why the technologies and strategies advocated by the authors are better suited than other strategies.

In spite of these limitations, the book makes a rewarding reading.

Waves in Fashion: Macro-Economics and Development

Ashima Goyal

Macro-Economic Challenges and Development Issues (Essays to Commemorate the Birth Centenary of C N Vakil) edited by Dilip M Nachane and M J Manohar Rao; Himalaya Publishing House, Mumbai, 1997; pp 457, Rs 750.

THIS volume is a tribute to C N Vakil in more ways than one. Apart from being motivated by his centenary celebrations, it demonstrates the ways in which his vision and interests have influenced the development of the 'Bombay School', and continue to direct current research interests in the department of economics in Mumbai University. The explosion of work in the department on macro-economics, finance and political economy has deep-roots. As the editors emphasise, Vakil was a natural liberaliser whose ideas were neglected until such ideas became internationally fashionable. But the aspects of his ideas that were rooted in Indian structure, such as the theory of wage goods, are still not fully appreciated. As the heavy cost of the first neglect is realised, perhaps the second will also be remedied.

C N Vakil also feared the effects of unrestrained monetary expansion, and worried about the tendency of governments to overspend. While the second may have been a feature of the 1980s, the first has never happened in India. Vakil's own ideas about the relation between monetary expansion and inflation were subtle. Only monetary expansion in excess of the supply of wage goods was certain to cause inflation. But he thought that, such an outcome was very likely in India in the context of planning. The Bombay school has followed him in worrying about the link between the government's fiscal deficit, money supply and inflation. But it has been neglecting that rider – the supply of wage goods. Meghnad Desai poses the question provocatively in his C N Vakil Memorial Lecture titled, 'Why Is India a Low Inflation Country?' Indian inflation is minuscule compared to Latin America's, and in spite of a consensus on political economy that sees the Indian government as accommodating interest groups at the expense of the fiscal deficit. Desai says that the answer lies in the large stocks of foodgrains available after the green revolution. These prevented the rising fiscal deficit from translating into inflation since food price inflation was moderated. Desai ends by worrying about achieving low global norms of inflation in the context of mobile global capital. There is a wage goods argument for an open economy [Goyal 1998]. The elements of this are: adjusting the nominal exchange rate to equate domestic to international prices of food at average Indian purchasing power or wage rates; liberalising agriculture gradually (along with policies to raise its productivity); and using monetary policy to equate real domestic to international interest rates to create conditions for high growth stable real exchange rates and optimal transition to fiscal health.

The paper by Desai kicks off the first section on political economy. In an empirical study of the links between interest groups, government size and growth, Ajit Karnik and Mala Lalvani find that although activities of interest groups are positively associated with larger government expenditures, the extent of misallocation of resources is not large enough to lower rates of growth. Political economy can be analysed from many different aspects. Abhay Pethe tries to initiate a dialectic exchange between Marxian political economy and mainstream economics. But although Marxian ideas of class conflict may not have had much impact on mainstream economics, they have certainly influenced labour laws, institutions and conflict in India. In the face of global competition, it is more important to go back to an older tradition of co-operation; labour leaders today recognise that. The enemy now is not the capitalist as much as the competitor. Even in Kerala the number of strikes have fallen from 37 in 1992 to 25 in 1997.

The next section turns to planning. L M Bhole decries both the state and market based systems and makes a passionate plea for a more humane via media. D M Nachane argues that wherever there are problems of co-ordination and feedback between multiple levels, hierarchical control systems theory is a powerful tool. He demonstrates its application to the Arrow-Hurwicz model of decentralisatio. and to a simple macro-economic stabilisation model. K N Prasad et al in a manpower-planning model discover mismatches between availability and requirement of critical skills. They warn that this is dangerous when modern development is information and knowledge intensive.

Planning is the flavour of yesterday, regulation the flavour of today. Part four takes this up. Regulation must be more severe if excessive profits are due to restrictive practices; it can be more lenient if economies of scale stimulate profits and growth. Sandesara in a business-like review of theories and evidence suggests that the prevalent first view has to be tempered by the second; the issue can only be resolved by industry specific studies. Dalvi surveys theories and types of regulation. He suggests that the British regulatory system that relies more upon negotiation and co-operation, "regulation with a loose rein", may be better suited to developing countries. There is more discretion and less transparency but a subtler balancing of conflicting interests is possible. The American system, in contrast, is legalistic and confrontationist. Katrak explores regulatory requirements thrown up by the expansion in international joint ventures.

There have been so many studies of poverty in India that we tend to be proprietal about them and about poverty. Indian researchers have refined measurement concepts and implemented them on a large scale. Section five is unusual in that it has UK-based researchers applying the concepts to poverty and migration in the UK.

Parts six to 10 turn to macro-economics and explore issues in fiscal, trade and monetary policy, domestic and external liberalisation, growth and business cycles. Writing on such issues is risky in a period of rapid change. The work can rapidly become dated, or turn out to have been mistaken. The future often judges the present harshly. Only deep understanding of institutions, theory and trends will remain relevant. The papers range from tightly focused empirical or theoretical pieces, to perspectives of policy-makers and musings on change. What are some gleanings from them that are still interesting?

Kothari makes the valid point that it is not government consumption expenditures so much as interest payments on public debt and subsidies that are responsible for the growth of current public expenditure. Why did the public debt grow? Borrowing

to finance current expenditure commenced in the early 1980s; in addition, throughout that decade borrowing to provide budgetary support to public sector enterprises remained at 6.3 per cent of GDP, and was brought down only in the 1990s. There is little systematic writing in the vital area of infrastructure. Sriraman offers a useful analysis in the Indian context. Tarapore argues strongly for the prestige, profitability and autonomy of the Reserve Bank. Vasudevan, while also arguing for autonomy of the Reserve Bank, points to the need for adapting reform to institutional structure. For example, regulations that impede integration among financial markets have to be removed before monetary policy can work effectively through the market. Mujumdar warns that Indian conditions and requirements of employment expansion must be kept in mind in designing financial reforms.

Civcir and Parikh use a multivariate co-integration approach to determine long-run nominal money balances in the Turkish economy. They initially assume domestic credit is exogenous and under the control of the monetary authorities. This key assumption of the monetary approach is questionable in the presence of sterilisation. There is an identification problem with single stage estimation, and the coefficient with respect to bank credit does not turn out to be significantly different from zero. Correcting for endogeneity, using two-stage estimation, they find that an increase in domestic credit leads to a decline in reserves as in the monetary approach. But it is real income that brings reserves into equilibrium.

Bokil gives a good overview of the rapid developments in international finance since the sixties and shows the close links of crises to America's macro-economic policies because of the status of the dollar as a reserve currency. The rapid development of private capital markets and international liquidity have meant a fundamental change in the determination of the exchange rates; it is now an asset price, subject to high volatility. But foreign currency markets do not satisfy the efficient market hypothesis. Are controls the answer? But the historical and technological changes that have led to this mobile global capital are difficult to reverse. Can we harness this technology for our good or is it going to destroy us? Developing new global norms is a pre-condition for harnessing it. Romar addresses this question but his solutions are the old Keynesian ones of capital controls, fixed exchange rates and variable domestic interest rates in an environment of global co-operation. If Keynes were alive today he would surely have been more innovative and found a way of taming new developments rather than shutting the door on them. Nayak emphasises the impact of capital flows on exchange rates in the Indian context, and points to the necessity of lowering interest and inflation rates to stabilise exchange rates. It is pleasing to find echoes. Goyal (1997) shares a similar concern.

Chatterji has a neat paper playing around with the effect of the choice of functional form on growth-convergence results. Manohar Rao demonstrates the power of non-linear models combined with indirect inference of parameters, compared to standard estimation, in the explanation of business cycles. There is the advantage of producing the observed random behaviour of macro-economic time series from a simple deterministic system with tight theoretical links, breaking the dependence on exogenous shocks and ad hoc lags, and allowing a new approach to policy and to the predictability of macro-economic variables.

In economics there is a tension between theory and realism. The first makes for understanding and the second for relevance. But by itself the first leads to aridity and the second to clutter. Bertrand Russell's remark that while it is difficult to do good work, it is possible, applies with great force in economics. In India the urgent task is to develop frameworks by which to understand and therefore change our realities. We have to be 'up to date' without a blind application of western theoretical frameworks. This book is an attempt in this direction.

The editors are to be congratulated for their labour of love for the tradition to which they belong and that has nurtured them. One theme running through the book and emerging at different places is the idea of co-operation. Partly this comes from the macro-economic perspective that sees the co-ordination that can remove the obvious waste in any system, but it also has roots in Indian thought. It says much for Vakil's foresight that the issues he thought important are still inspiring research; they have been thrown up again by time. The contributors have by and large followed his maxim: "economists must get into the spirit of Indian economic conditions and give appropriate advice".

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Can We Survive without Gandhian Values?

Romesh Diwan

Gandhi's Vision and Values: The Moral Quest for Change in Indian Agriculture by Vivek Pinto; Sage Publications, New Delhi, 1998; pp 176.

AL GORE (1992) makes a strong case that the western civilisation and earth's ecological system are on a collision course because of four strategic threats: (i) global warming, (ii) stratospheric ozone depletion, (iii) loss of living species – both of animals and plants, and (iv) deforestation. These threats have been caused by (i) population explosion, (ii) scientific and technological revolution, and (iii) ideology - our way of thinking; Jaques Ellul (1996) calls it propaganda. The ideology promoted by this consumerist culture is the market ideology: "The market is eternal, the market is unchanging, the market is all-seeing, the market is everywhere. The market is both the natural condition of mankind and the unique blessing of the American Eden. The market is also synonymous with democracy: since it gives the People what the People want, the market is, by definition, the incarnation of the People's will...buying and selling are holy acts, the source of human meaning; all else is empty sophistry...This, then, is the the new consensus worked by the Cultural Miracle: The market is natural, normal and irresistible. Efforts to control its vagaries, however, are artificial, dictatorial, arrogant - and undemocratic" [Frank and Weiland 1997: 260-61].

The major source of this problem lies in greed and over-consumption promoted by market ideology [Diwan 1997b, 1998b]. In fact, consumption pressures from increasing material affluence has doubled in the past 25 years and have destroyed more than 30 per cent of the natural world since 1970 with serious depletion of the forest, freshwater and marine systems on which life depends. According to World Watch studies and a ground-breaking report from the Worldwide Fund for Nature, the New Economics Foundation and the World Conservation Monitoring Centre at Cambridge, overconsumption is accelerating unabated.

The technological revolution and the market ideology have spawned globalisation, a buzz word for the rapid growth of finance and trade spurred on by advances in computer and satellite technology [Diwan 1995]. However, globalisation is not working. It has affected even Americans profoundly; driving down wages and creating job insecurity. With the meltdown of east Asian economies, serious depression in Russia, and growing debt crisis, globalisation has lost its lustre. Even UN secretary general Kofi Annan told Harvard University audience that globalisation is seen as an ideology of predatory capitalism. The perception is unmistakable: millions are suffering; savings have been decimated; hard-won progress in the fight against poverty is imperilled.

The world economy is in stress. In Gore's language: "The more deeply I search for the roots of the global environmental crisis, the more I am convinced that it is an outer manifestation of an inner crisis that is, for want of a better word, spiritual" [Gore 1992:12]. One observes the rise and fall of economic orthodoxy [Diwan 1998c]. It is now recognised that American Indians are sages and not savages. There is now a space for alternative ideas, specially for Gandhian vision and values. That makes Vivek Pinto's book under review both important and highly relevant.

The basic question this book asks is: Can the ethical and moral principles with which Gandhi experimented initially in *Hind Swaraj* and then in his agricultural communities serve as the basis for reconstructing a harmonious, poverty free, non-violent and self-reliant society? The answer is, of course, yes and consistent with earlier analyses [Diwan 1985]. In Pinto's own words, "It is my contention... as it was Gandhi's, that the malaise affecting the Indian nation is primarily moral and only secondarily economic and political" (p 67).

Based on Pinto's PhD thesis, it is a short book divided in four chapters. Gandhi described his struggle as a war between truth and falsehood. This is derived from Gandhi's religious heritage and two personal experiences: (i) June 1893, when he was physically ejected from a railway compartment at Maritzburg railway station, so well depicted in the film 'Gandhi', and (ii) during mid-1906 whence he volunteered in the military's ambulance service both for Europeans and Zulus during the Zulu war where he witnessed first hand British atrocities through ferocious use of machine guns, floggings and hanging of Zulus. This made him question intensely about Britain as a nation of civilised people. He realised that the truth is on the side of the Indian community. Hence it must win. This idea is discussed at length in chapter 1, entitled, 'Hind Swaraj: Context and Text for Gandhi's Religiously Shaped Views on Agricultural Development'. Gandhi had a great faith in the common man, specially a peasant. A peasant earns his bread honestly. He has an ordinary knowledge of the world. He knows fairly well how he should behave towards his parents, his wife, his children and his fellow villagers. He understands and observes the rules of morality. The self-reliance on their own hands and feet builds their character and makes them true votaries of swaraj, practitioners of ahimsa, and fearless, thereby inculcating in them the conduct most suitable for satyagrahis. Therefore, the village is the epicentre of civilisation. Civilisation is the creation of institutions and structures in which not only basic material needs of human beings are met, but also, and more importantly, where individuals are filled with a sense of their spiritual and social obligation to one another and society. The civilisation success lies in this conduct based on character, ethics and morality derived from religious values.

Chapter 2, 'Relation of Gandhi's Religious Perspectives to Agricultural Issues: An Exploration of Theory and Practice, 1909-1948' describes Gandhi's practices in four ashrams: (i) Phoenix settlement, a farm near Durban, Natal 1904-14; well discussed in *Indian Opinion* – 1903-14, (ii) Tolstoy Farm made up of 1,100 acres near Johannesburg, May 30, 1910-January 1913, (iii) Satyagrah [Sabarmati] Ashram, Kochrab to Ahmedabad, May 20, 1915-1933, and (iv) Sevagram Ashram, Segaon, Wardha, April 1936. The ashrams were run on high moral principles: brahmacharya, truthfulness, manual labour, duty to strengthen character, fearlessness in opposing injustice, and vow of poverty. From these principles followed the daily conduct of: simple life, seeking right education, vegetarianism, maintaining good health, self-sufficiency, belief in nature cure and industry. The objective of the ashrams was not only to develop persons of character but also viable communities. The goals of the community were communal harmony, simple sustenance, respect for the dignity of labour, values that enhance spiritual well-being, pursuit of socio-political aims. The relevant concepts then are: duty, equality, brotherhood, service, simplicity, manual labour, ahimsa, frugality and no private ownership of land. For analytical purposes, it uses six concepts of Gandhian economics: swadeshi, aparigraha, bread

labour, trusteeship, non-exploitation, and equality developed in [Diwan and Lutz 1985]. Gandhian economic policy is now summarised in a forthcoming *Encyclopaedia of Political Economy*.

Chapter 3 is 'A Review of Planned Agricultural Development in India and a Gandhian Critique, 1951-1974'. It describes historically, Nehru's Macaulyite ideas that defined agricultural policies. The discussion is in terms of plan investments, price policy and sectoral terms of trade, bias in agricultural planning, green revolution and land reforms. These are looked at from the objectives to promote equity and social justice. It asks such questions as: to whom did the proportional benefits of this strategy accrue, specifically, which strata of farmers, regions and crops? What was the price of modernisation? Were prices used for manipulative purposes? Did it polarise the countryside? etc.

Like many other scholars before, the author concludes: "there does exist a bias not only in investments, but also with respect to price policies, terms of trade, and the role of the state. Agricultural development has been geared to the big farmers with urban ties, irrigated land and a marketable surplus" (p 100). The analysis is taken forward by subjecting it from the lens of Gandhian economics outlined in the earlier chapter. The crisis that affects Indian agriculture is only symptomatic of the economy and politics of agriculture, "at its heart the predicament is moral". The path proposed for recreating Indian agriculture is formulated on Gandhi's moral and ethical principles.

The last chapter discusses, 'Development with a Human Face: Gandhi's Constructive Programme and Current Alternatives'. It summarises Gandhi's constructive programme whose key elements have been to establish communal unity, removal of untouchability, promote adult education, develop non-violent unions and abolition of social evils. Sarva Seva Sanghs provide the operational and organisational structure for a constructive programme. Contrary to public perception, many principles of constructive programmes have taken roots in India and Vivek Pinto provides examples of three contemporary institutions: Self-employed Women's Association (Sewa), Ahmedabad, Gujarat; Anna Hazare's experiment at Relegaon Siddhi, Ahmednagar district, Maharashtra; and Self-imposed land-use plan in Seed, near Udaipur, Rajasthan. There are other such activities currently taking place in India [Diwan 1997a].

The conclusion follows, namely, that development is possible only if moral values are directly integrated. The market economic system defines wealth in material terms only. Thereby it distorts the production process destroying family and community. Scholars now contend that in addition to material wealth there is also natural wealth; estimates suggest that natural wealth is much larger than material wealth. There is also wealth of the third kind; namely, relational wealth [Diwan 1998b]. A proper "test of every policy is not profit, employment or growth, but how it strengthens family and community, individual character and sensitivity" (*Hinduism Today* 1998). Relational wealth adds to natural wealth and requires conduct based on ethical and moral values. It is now recognised that our world cannot survive without Gandhi's vision and values. Inheritors of the old Mayan and earlier civilisation are asserting the values of their heritage. Hinduism is in renaissance and Pranakrishnan Adhikari and Frank Morales estimate 1-2 million "Hidden Hindus" – white practising Hindus in North America alone. Even in US, the land of the brave and corporation sacred cows, corporate welfare is being documented (*Time*, November 9, 1998). Vivek Pinto's book is thus very timely.

No doubt, one can find disagreements with certain arguments and statements – e g, the suggestion that late Sukhamoy Chakravarty's views on planning, based as these were on leftist conventional wisdom of the day, are consistent with those of Gandhi. Overall, this book brings common sense and wisdom to every day problems in agriculture. Like Dennis Dalton's book on Gandhi, it is full of quotes from original sources and provides a wealth of information. Unlike that book where Gandhian ideas of *Hind Swaraj* are neither understood or appreciated [Diwan 1996]; Vivek Pinto shows a clear grasp of such ideas and concepts. His treatment on swadeshi is a good one, and all the more important in view of its essentiality for our current malaise [Diwan 1998a]. It is a highly readable and persuasive book. It deserves to be and will undoubtedly, widely read.

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REVIEW OF WOMEN STUDIES

Resilience of Gender Inequities
Women and Employment in Chennai

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Policies to increase women's wage employment often choose to take the easy way out by facilitating the setting up of industries that are seen to be compatible with women's household responsibilities rather than address the constraints that force women to, in fact, work in so-called women's work. This paper attempts to map the diffused manner in which wage earning women workers experience oppression which is the outcome of the interplay of both patriarchal structures and capitalist relations of production. The location of the study is Ambattur in Chennai, one of the oldest industrial belts in Tamil Nadu.

I
Introduction

THE last decade has seen a turning away, particularly by feminists, from attempts to construct overarching systems or logics of oppression to explain the persistence and resilience of gender inequities in society. The explanatory value of monolithic structures like capitalism and patriarchy, and the hegemonic characteristics attributed to these structures have increasingly been questioned, since, more often than not, the way these have been theorised and applied, tend to imprison societies and women in a permanent no-win situation. We agree with Pringle's suggestion that, "rather than imposing on 'women' the identities of potential overthrowers of the patriarchal order, it is better to start with practical questions about empowerment and disempowerment. The kinds of generalisations that are appropriate do not begin with questions such as 'where do women fit into the system of patriarchy?' but with practical questions geared to finding out how women are disempowered in particular situations" [Pringle 1995:210].

In a modest way this paper attempts to map out as concretely as possible the diffused manner in which wage earning women workers experience oppression which is the outcome (in this case) of the interplay of both patriarchal structures and capitalist relations of production. This interplay simultaneously results in both empowering and disempowering situations for women at a point in time; over time, however, while "significant destabilisation of patriarchal categories and residues" [ibid] is possible and sometimes discernible, gender inequities not only persist but also exhibit a measure of resilience.

The focus of our study is the conditions of employment of labour (particularly women labour) in the changing industrial scenario of Ambattur. It is a micro effort to address what in effect is a macro concern, namely, the nature and quality of employment being generated in the economy. At the macro level, the post-reform period has been associated with growing employment opportunities for women especially in the export-oriented industries. However, these claims of increased employment generation are not generally supplemented with information on the nature of employment and/or the terms and conditions under which labour is employed in these emerging industries [Custers 1997]. Simultaneously, by addressing women labour in particular we hope to capture the gendered nature of the labour market as well.

Ambattur in Chennai is one of the oldest industrial belts in Tamil Nadu. It has a long history of state induced industrial activity which in turn has spawned the growth of private formal and informal industrial activity. Over the years and particularly since the nineties the character of industrial activity in Ambattur has undergone a sea-change: a predominantly engineering industry-based area has now seen the proliferation of readymade garment and leather finishing units catering to the export market. These newer units now employ relatively large numbers of women.

According to data provided by the Ambattur Industrial Estate Manufacturers' Association, the Ambattur industrial estate is one of the largest in Asia covering almost six sq km. area. It was established in 1963 and currently (that is, in 1998) has 2,000 small to medium enterprises. The combined turnover of these units is approximately Rs 2,000 crore, while they employ about 2,00,000 people. About 30 per cent of these workers are women.

The Ambattur estate is dotted with several different industries. We chose to focus on garment, leather and to some extent the engineering industry. This does not in any way reflect the composition of units either in Ambattur or in the Ambattur industrial estate. In terms of scale of investment and number of workers, engineering is the dominant industry. Since our primary focus is on the conditions of employment of women labourers, we deliberately chose those industries where the concentration of female labourers is quite high and hence the choice of garment and leather industries. The engineering industry which has a long history in Ambattur has been chosen for comparison purposes only. Moreover, garment and leather industries have boomed in the 1990s. While the importance of garments in the export basket of the country needs no elaboration what also needs to be highlighted is the fact that the growth of the textile products industry in Tamil Nadu has been spectacular (particularly since 1991-92) whatever be the indicators used – fixed capital, value of output, value added or employment growth. One important factor that has enabled the Indian exporters in gaining ground in the international market, albeit at the lower end of the product spectrum, is the availability of relatively cheap labour. More specifically, women labour is available to the industry in large numbers and at an even lower wage.

Our survey covers 466 labourers comprising both males and females and they are distributed across the three selected industries (Table 1). The fieldwork was conducted in 1997.

We need to introduce a caveat at this juncture. The discussion that follows does not emphasise two aspects, namely, (a) the

We are grateful to Padmini Swaminathan who has put together the selection of articles forming this issue of the Review of Women Studies.

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form of the enterprise where labour is employed; and (b) the organisation of production within an enterprise. In our reading of the literature on this subject we found that both these aspects have been fairly well covered. Besides, in an earlier study on conditions of labour in Ambattur, Kalpagam (1981) has dealt in some detail with both these questions. Our preliminary enquiries revealed no significant change in both these aspects despite the lapse of 18 years. Rather than repeat what has already been fairly well-documented we have chosen to study such aspects, the interplay among which, gives us an idea of the logic of the functioning of the labour market (particularly the women labour market) in Ambattur.

The plan of the paper is as follows: Section II provides a general profile of the wage workers in Ambattur in terms of age, education, experience, marital status, wages earned, contribution to family income, etc. In Section III we have attempted to capture the complex interconnection between these different variables. Section IV draws out the broad conclusions of the study.

II
Profile of Wage Workers

The labour force in Ambattur is relatively young though the industrial estate has been in existence for a long time. About 37 per cent of the sample labour force is in the age group of 25-29 years and about 70 per cent of the labourers are below 29 years (Table 2). Importantly, less than 10 per cent are more than 35 years old. If we presume that labour enters the market at the age of 20, we find only 10 per cent of the labour force has stayed on for 15 years and cross the age of 35. Another notable feature is that about 11 per cent of the labour force is below the age of 19.

When we disaggregate the data by sex, we find the broad patterns to be similar, viz, a majority of both male and female labourers are in the age group of 25-29 years and very few of them are in the higher age groups. However, one can discern certain important variations within this broad pattern. While only 2 per cent of the sample male workforce is below 19 years of age, about 15 per cent of the female workforce is from this age group. At the other end, while about 32 per cent of male workers are drawn from the age group of 30-35 years, the share of female workers from this age group is around 19 per cent. This indicates that the female labourers enter the labour market relatively young and also quit early when they cross the age of 30. This peculiar feature of women entering the labour force early and quitting it shortly as compared to male labourers is not unique to Ambattur alone [Elson and Pearson 1981]. The census data vouch for such a pattern in different parts of the country as well as for the country as a whole as far as women's non-farm employment is concerned.

Levels of Education

Though most of the labourers have entered high school (about 69 per cent), only about 36 per cent have completed it whereas about 33 per cent have dropped out before completion of high school. Hardly 10 per cent of the sample labour force has continued its education up to higher secondary or beyond. Importantly, about 17 per cent of the sample labour force had never been to school and remain formally illiterate. Differentiating the data sex-wise does indicate that males are better educated with about 41 per cent completing their secondary education as compared to only about 36 per cent of the sample women

Table 5 Interplay of Literacy, Experience and Age

Item	Per Cent to the Total Male Workers	Per Cent to the Total Female Workers
Illiterates and educated up to 8th standard	49.6	56.7
Experience between 5 to 10 years	28.7	12.1
Age between 20-24 years	20	21.8

Source: Compiled from Tables 2,3 and 4.

Table 1. Distribution of Workers across Industries

Industry	Total No of Workers	Per Cent	No of Male Workers	Per Cent	No of Female Workers	Per Cent
Engineering	70	15.1	—	--	70	21.1
Garment	284	60.9	63	46.7	221	66.8
Leather	112	24.0	72	52.3	40	12.1
Total	466	100.0	135	100.0	331	100.0

Source Survey data.

Table 2. Distribution of Sample Workers across Different Age Groups

Age Group	Total No of Workers	Per Cent to Total Workers	No of Male Workers	Per Cent to Total Male Workers	No of Female Workers	Per Cent to Total Female Workers
< 19 years	51	10.9	3	2.2	48	14.5
20 - 24 years	99	21.2	27	20.0	72	21.8
25 - 29 years	170	36.5	50	37.0	120	36.3
30 - 34 years	107	22.9	43	31.9	64	19.3
35 - 39 years	29	6.2	9	6.7	20	6.0
39 + years	10	2.1	3	2.2	7	2.1
Total	466	100.0	135	100.0	331	100.0

Source: Survey data

Table 3 Level of Education among Workers

Educational Level	No of Workers	Per Cent to Total	No of Male	Per Cent	No of Female	Per Cent
Illiterate	79	16.9	28	20.7	51	15.4
(1-5) Elementary	24	5.2	2	1.5	22	6.6
(6-8) Middle	152	32.6	37	27.4	115	34.7
(9-10) Secondary	167	35.8	56	41.5	111	33.5
(11-12) Higher Secondary	38	8.1	9	6.7	29	8.8
Post + 2	6	1.3	3	2.2	3	1
Total	466	100.0	135	100.0	331	100

Source: Survey data.

Table 4: Distribution of Workers by Years of Experience

Years of Experience	No of Workers	Per Cent	No of Male Workers	Per Cent	No of Female Workers	Per Cent
< 1 year	124	26.6	22	16.3	102	30.8
1 – 5 years	260	55.7	75	55.6	185	55.9
6 - 10 years	72	15.5	32	23.7	40	12.1
Above 10 years	10	2.2	6	4.4	4	1.2
Total	466	100.0	135	100.0	331	100.0

Source: Survey data

workers. It is not that women labourers have not entered high school. We find that the combined percentage share of middle and secondary level education is the same for the male and female labourers at about 68 per cent. However, there is a greater incidence of drop out among female labourers as compared to males. This is evident from the fact that while only 27 per cent of the males have quit the educational stream before completing eighth standard nearly 35 per cent of the female labourers who have enrolled in high school have quit schooling before completing eighth standard.

Another notable feature is that the incidence of illiteracy is higher for male labourers when compared to female labourers.

To sum up, educational attainment among male labourers seems to be polarised, with their share in both illiteracy and higher levels of education being greater as compared to female labourers. Thus, while the literary base among the male is smaller, their proportion in the higher education levels is greater than that for female labourers. On the other hand, a large proportion of female workers enter the educational system but quit quite early thus having a negligible presence at the higher levels.

Have these dropouts and/or illiterate workers started working at a very early age or immediately after quitting the educational stream? The years of experience gained by these labourers could probably indicate whether they have entered the labour market as soon as their school life ended.

Majority of the workers (about 58 per cent) have an experience ranging from two to five years.

The general pattern of a greater proportion of labourers having work experience between two to five years does not vary between male and female labourers. However, male labourers seem to have stayed on and gained more experience as compared to the female workers. While about 28 per cent of the sample male labourers have more than five years of experience only about 13 per cent of the female labourers have reported such a level of experience. We find that about one-third of the sample female labourers have an experience of less than a year. On the contrary, hardly one-sixth of the sample male labourers have such a low level of experience. Thus, we find that only a small proportion of the women workers have stayed on to gain more experience. It is quite unclear as to why the majority have quit the labour market fairly early

To comeback to the earlier question as to why so many women labourers have quit the educational stream, data on the level of experience along with age profile suggests that discontinuation of schooling was not immediately followed by entry into the labour market.

To elaborate, nearly 56 per cent of the women workers surveyed in Ambattur are either illiterate or have discontinued schooling after the eighth standard (Table 5). If we assume that those who enter the educational stream do so at the age of five, then they must have been 13-15 years old when they discontinued after eighth standard. If, after discontinuation of school, they had entered the labour market at the age of 15, they would have clocked an experience ranging from five to nine years by the time they reached the age of 20 or 24 years. We do not find such a pattern in Ambattur. While almost 57 per cent of the sample women workers are either illiterate or educated up to eighth standard, only around 12 per cent of the women workers have an experience of 5 to 10 years. Another associated feature is that only about 22 per cent of the sample women workers are in the age group of 20 to 24 years (Table 5).

We find a similar pattern among male labourers as well. But the phenomenon is not as acute as it is in the case of women workers. While about 50 per cent of the male workers were either out of school or had never been to school, nearly one-fourth of male workers had work experience of more than five years but less than 10 years. Thus, the available data suggests that discontinuation of schooling has not been followed immediately by employment. There could be other reasons why workers had been forced to give up schooling.

Marital Status

So far, we have noted that the sample women workers in Ambattur are young, less educated than their male counterparts and are also relatively less experienced. One probable reason for this scenario could be the debilitating role of patriarchal relations and structures. At one level, working women have to constantly struggle to overcome the stigma attached to working outside the home. Simultaneously there are compelling material requirements that force many women into the labour market. Marriage, for women, imposes an added dimension in their battle against inimical patriarchal forces. The delicate balance that needs to be maintained between the material status of the household into which a working woman marries and the (perceived) social status of the marital household, decides for the most part whether a woman will continue to work outside the home or not. During the course of our interviews most of the unmarried women labourers responded that their continued participation in the workforce would depend entirely on the decision of their future spouse. If their husbands decide that they shall not go to work, they would definitely quit and stay back at home. Since we have not interviewed labourers who had discontinued work after marriage, we are unable to map out the process of such decisions. But what emerges clearly is that the decision to work in the factory – when, how long, and at what stage in

Table 6: Distribution of Workers by Marital Status

Marital Status	No of Workers	Per Cent	No of Male Workers	Per Cent	No of Female Workers	Per Cent
Married	240	51.5	71	52.6	169	51.1
Unmarried	224	28.0	64	47.4	160	48.3
Widowed	2	0.5	—	—	2	0.6
Total	466	100.0	135	100.0	331	100.0

Source: Survey data.

Table 7: Distribution of Workers by Monthly Wages

Wage Slab (Rs)	Total No of Workers	Per Cent	No of Male Workers	Per Cent	No of Female Workers	Per Cent
Up to 500	62	13.3	41	30.4	21	6.3
501 – 1000	169	36.2	10	7.4	159	48.0
1001-1500	144	30.9	35	25.9	109	32.9
1501-2000	42	9.0	27	20.0	15	4.5
2001-2500	9	1.9	8	5.9	1	0.3
2501-3000	6	1.2	3	2.2	3	0.9
Above 3000	25	5.3	4	3.0	21	6.3
Not available	9	1.9	7	5.2	2	0.6
Total	466	100.0	135	100.0	331	100.0

Source: Survey data.

their lives – is clearly not merely a matter of personal choice for the women workers. These are some of the reasons why many of our respondents opined that their current employment could be a passing phase.

How many of these women are in such a 'temporary' phase? When we look into the marital status of the sample workers we find that nearly half of the female labourers are unmarried. Similar is the case for male labourers as well. The fact that about 50 per cent of the women workers are yet to marry, indirectly indicates the extent of volatility and the level of turnover in the female labour market of Ambattur.

A similar marital status pattern among male labourers in Ambattur could be due to the fact that the labour force (in the industries we have chosen to analyse) in Ambattur is young. But unlike the women workers, male workers stay longer in the market as indicated by their longer years of experience suggesting a relatively low turnover among them. The patriarchal ideology pressurises the male to get to work and earn. Men are stigmatised if they remain unemployed for long or if they are perceived to be earning less than the women in the family. This same ideology however mounts countervailing pressures on the male and female, dictating to a considerable extent, the nature, composition and the functioning of the labour markets. It, at the same time, stigmatises unemployment among male and employment among female. However, a monocausal account in terms of patriarchy alone cannot explain why one half of the sample female labour force is married and/or why some women continue working even after marriage. It is clear that there are other forces at work and need to be reckoned with.

It is possible that the material conditions as revealed by the financial flows of the individual labourers together with that of their households could have an overriding influence at least momentarily over patriarchal dictums. Simultaneous operations of patriarchal forces and material considerations with varying intensities does render fluid the decision-making process which either compels women to stay at home or find a job. It also signifies the impure form of the labour market while negating the exclusive influence of either patriarchal ideology or material conditions on the labour market. That is the reason why, while many women claim that they would decide about their continuation in the labour market after their marriage, another half of the labour force participates in the labour market even after marriage.

However, we need to exercise some caution while interpreting the participation of married women in the labour market. Such workers may not continue to work for long and may quit the market as soon as they are asked to do so by their husbands/marital homes. This could be a reason why the experience level among women is relatively low despite the fact that half of the sampled women workers are married. The fact that only 28 per cent of the female workers are above 29 years old as compared to about 40 per cent of the male workers in the same age group, to some extent, supports our contention that (keeping employers' decision on the marital status of their women workers constant), while the force of patriarchal structures would work towards women withdrawing from the labour market after marriage, the material conditions of the household would require that many married women continue working at least for some time.

Monthly wages received by the individual labourer is the most crucial material aspect that decides their overall location in the material matrix of society. We find from Table 7 that about 80 per cent of the sample workers in Ambattur earn a monthly wage of less than Rs 1,500. The largest number of labourers fall in the wage slab of Rs 501-1,000 (about 36 per cent). A significant number earn less than Rs 500 p m. The distribution pattern suddenly turns sticky when we move to higher wage slabs.

We also find interesting variations in the levels of pay across gender. Similar to educational qualifications, the pattern is polarised for male labourers and clustered for female labourers. About 30 per cent of the male workers earn a monthly wage of just Rs 500; another 46 per cent get a monthly wage in the range of Rs 1,000 to Rs 2,000. In contrast, more than 80 per cent of female workers are concentrated in the income slab of Rs 501 - Rs 1,500 p m. Just around 6 per cent of the female labourers earn less than Rs 500 per month. The difference in wages earned is less sharp among male labourers than among

TABLE 8 DISTRIBUTION OF LABOUR ACROSS FAMILY INCOME RANGE

Income Group (in Rs)	No of Workers	Per Cent	No of Males	Per Cent	No of Females	Per Cent
Up to 1000	53	11.37	4	3	49	14.8
1001-2000	97	20.8	24	17.8	73	22.1
2001-3000	116	24.8	30	22.2	86	26.0
3001-4000	71	15.2	25	18.5	46	13.9
4001-5000	46	9.87	11	8.1	35	10.6
5001-7500	34	7.29	11	8.1	23	6.9
7500-10,000	9	1.9	6	4.4	3	0.9
Not available	40	5.1	24	17.8	16	4.8
Total	466	100.0	135	100.0	331	100.0

Source. Survey data

TABLE 9 DISTRIBUTION OF LABOUR ACROSS LEVEL OF CONTRIBUTION TO FAMILY INCOME

Range of Share in Family Income	Total No of Workers	Per Cent to Total	No of Male Workers	Per Cent	No of Female Workers	Per Cent
Below 25 per cent	73	15.6	21	15.6	52	15.7
26 – 50 per cent	172	36.9	42	31.1	130	39.3
51 – 75 per cent	55	11.8	19	14.1	36	10.9
76 – 100 per cent	118	25.3	23	17.0	95	28.7
Not available	48	10.3	30	22.2	18	5.4
Total	466	100.0	135	100.0	331	100.0

Source Survey data.

TABLE 10. DISTRIBUTION OF WORKERS BY OCCUPATION

Occupation	No of Total Workers	Per Cent	No of Male Workers	Per Cent	No of Female Workers	Per Cent
Assembler	20	4.29	3	0.7	19	5.7
Helper	78	16.7	16	11.9	62	18.7
Inspector	42	9.01	13	9.6	29	8.8
Cutter	22	4.72	14	10.4	8	2.4
Iron	67	14.3	34	25.2	33	10.0
Tailor	206	44.2	57	42.2	149	45.0
Fitter	14	3.0		--	14	4.2
Operator	17	3.6	---	...	17	5.1
Total	466	100.0	135	100.0	331	100.0

Source: Survey data.

female labourers when we move to higher income slabs. Another interesting feature to be noted is that while hardly 3 per cent of the male labourers earn more than Rs 3,000 p m, about 6 per cent of the sample female labourers account for this income slab.

To sum up, distribution of male labourers across various wage slabs constitute a wider spectrum as compared to female labourers. Moreover, their distribution is polarised whereas for the female labourers the distribution is clustered. Surprisingly, about one-third of the male labourers are earning less than Rs 500 per month. The obvious query that emerges from this pattern is the quantum of family income of each worker and the contribution of each worker to the family income.

Family Income of Workers

An examination of the total family income of the workers can indirectly indicate the material background of these workers. We find that, for both male and female workers, the distribution is concentrated at the lower end of the income range (Table 8). For more than 70 per cent of the workers, the total family income is below Rs 4,000 p m; for about one-tenth of the sample labourers, family income is less than Rs 1,000 p m. Most of the sample workers are in the family income range of Rs 2,000 to Rs 3,000 p m. The next large group has a family income between Rs 1,000 and Rs 2,000 p m.

When we consider the distribution pattern across gender, we find that, while only 3 per cent of the male labourers' family income is below Rs 1,000 per month, about 15 per cent of the female labourers' family gets a monthly income of just Rs 1,000 p m. More importantly, most of the female labourers hail from poorer families whose monthly income is comparatively lower. While nearly 63 per cent of the female workers reported their family income to be below Rs 3,000 p m, only 42 per cent of the sample male workers reported this level of family income. At the other end, while about 38 per cent of the male labourers' family receive a monthly income of more than Rs 3,000 only 31 per cent of the female workers hail from families whose monthly income is in that range.

The fact that most of the women workers are from relatively poorer households indicates the tremendous economic pressure that overrides, at least temporarily, conventional patriarchal norms and 'forces' women into the labour market [Joekes 1985]. This overriding (probably temporary) importance of material condition should manifest itself in the significant contribution of women workers to their family income. Let us analyse the share of individual labourers' income in total family income.

The share of the individual worker could be 100 per cent if that worker happens to be the sole breadwinner of the family. This share would decline with every additional earning member in the family. Given the fact that the total family income of a large number of workers is within Rs 3,000 p m there is a possibility that very few families have more than two earning members.

We find from Table 9 that, for about 37 per cent of the labourers, their contribution ranges from one-fourth to one half of the total family income. About three-fourths of the family income is earned by another 25 per cent of the labourers.

The general impression, given the prevailing patriarchal ideology, is that the male would be the sole breadwinner for the household or, at the most, the wage income of the women would supplement the male wage income. Surprisingly, only about 17 per cent of the sample male workers of Ambattur fall in the category of dominant wage earners with their contribution accounting for more than 75 per cent of the total family income. In contrast, about 30 per cent of sample female workers are the primary wage earners of their households contributing more than 75 per cent of the family income or the entire income. Thus, we find, an overriding influence of material conditions in at least about one-third of the sample women workers' households. It is also evident that the pressure on such female workers to continue in the labour market could be very high as their wage is absolutely essential to sustain the family.

Table 10 gives an idea of the occupational segregation among male and female labourers studied in Ambattur. There are two features to be noted in this distribution. While we do not find any difference in the percentage share of tailors among males and females, a greater proportion of women labourers are helpers as compared to males. At the other end, physically taxing work like ironing is also undertaken predominantly by male labourers.

Wage Discrimination in Labour Market

A general observation across labour markets (organised and unorganised) is that women are discriminated in fixing the wages. For the same kind of work, men are generally paid more. Does Ambattur labour market reveal such discrimination based on gender?

To throw some light on this aspect of the labour market, we consider the entire sample population and group them by their occupational status and gender location (Table 11). The gross wages for each occupational group is calculated to arrive at the average wage per month per person. We find that there is discrimination against women in certain occupations and in certain others females are paid more than males on an average. But a closer look indicates that women are discriminated

Table 11: Average Wage Across Occupation and Gender

Occupation	Male			Female			Average Wage of Women as a Per Cent of Men's Wage	Deviation from 100
	No of Workers	Total Wages Earned (Rs)	Average Wages (Rs)	No of Workers	Total Wages Earned (Rs)	Average Wage (Rs)		
Assembler	1	NA	—	19	15260	803	—	—
Helper	16	23970	1498	65	51800	796	53	(-) 47
Inspector	13	17800	1369	29	25500	879	64	(-) 36
Cutter	12	14900	1233	7	5300	757	61	(-) 39
Iron	29	31490	1085	27	34350	1272	117	(+) 17
Tailor	57	71800	1261	149	238315	1579	126	(+) 26
Fitter				14	22800	1628		
Operator				19	23100	1215		

Source: Survey data.

Table 12: Distribution of Labour by Status of Employment

Contract Condition	Total No of Workers	Per Cent	No of Male Workers	Per Cent	No of Female Workers	Per Cent
Casual	143	30.6	43	31.8	100	30.2
Contract	6	1.2	6	4.4	—	—
Permanent	154	33.04	21	15.5	133	40.18
Temporary	125	26.8	65	48.1	60	18.1
Not available	38	8.15	—	—	38	11.4
Total	466	100.0	135	100.0	331	100.0

Source Survey data

against as they are paid only marginally higher than men wherever this phenomenon occurs.

Women helpers, inspectors, and cutters, are paid only 53, 64 and 61 per cent respectively of the average wages that men labourers draw in these occupations. On the other hand, women are paid 117 and 126 per cent of average wages that men labourers draw in the occupations of ironing and tailoring.

In other words the deviation in favour of women is only to the tune of 17 and 26 per cent in some occupations whereas the deviation against the women ranges from 36 to 47 per cent.

Given the high level of turnover and consequently a low level of experience among the sample workers, we tried to ascertain the status of employment. This was recorded essentially by eliciting the perception of the individual sample labourers. The distinctions among the categories of permanent and temporary were blurred to a significant extent in the perception of the workers. We have not resorted to any legal definition nor have we checked any legal papers like appointment order of individual labourers as they rarely exist

If a labourer is provided continuous employment in a firm, then the labourer perceives that s/he is permanently employed in the unit despite the fact s/he does not have any legal document. A semblance of permanency is also introduced in the wage structure with bonus and meager annual increments in the salary. However, there is hardly any legal protection for the labourers. It is also important to note that these categories are so loosely used with no fixed meaning, many labourers were unable to perceive their position within the available categories.

Overall about 33 per cent of the labourers perceived that they are permanently employed (Table 12). However, about 57 per cent of the labourers were clear that they are not permanently employed and they perceived their status to be either casual or temporary.

Surprisingly, the perception about permanency in their employment is widely prevalent among female labourers (about 40 per cent) as compared to male labourers (about 16 per cent). On the other hand, while about 80 per cent of the male labourers perceived their status to be either casual or temporary, only about 48 per cent of the female labourers thought so. However, about 11 per cent of the sample female labourers, found these categories inadequate to express any perception of their status of employment.

It is our contention that the complex interplay of poor material conditions and patriarchal forces, both at home and in the labour market, is an important reason why capital is not only assured of a continuous supply of women labour but is also able to get this supply relatively cheap. This contention is based on what the data has revealed to us thus far, namely, women's low level of work experience, gender selectivity in occupation and contractual conditions, gender discrimination in wages earned – all these, despite the fact that a significant proportion of the women workers are almost the sole breadwinners of their households and/or contribute more than 75 per cent of the total family income.

III
Features of Ambattur Labour Market

So far we have focused on the general profile of the wage workers in Ambattur and discussed each aspect separately. However, the functioning of the labour market is more complex and is the product of the interplay of these disparate aspects that we have discussed independently. Our concern in this section is to map out the interconnection between these variables and understand the functioning of the labour market.

Condition of Employment and Wages

We have noted in an earlier section that many respondents, particularly women workers have perceived their job to be permanent. Given the fact that the employers introduce a semblance of permanency among workers by notional annual increments in their wages, there should generally be clear differences in the wages received by casual, contract, temporary and permanent workers.

We find that among males none of those who perceived themselves to be casually employed, earned more than Rs 2,000 p m. On the other hand, while about 50 per cent of the male labourers who claim to be permanently employed earn more than Rs 2,000 p m only one labourer who claims to be permanent earns more than Rs 3,000 p m. About 90 per cent of the temporary male labourers earn less than Rs 2,000 p m (Table 13).

Among the female labourers, that the wages paid are generally lower than that

Table 15: Distribution of Male Workers across Experience and Employment Status

Employment Condition	Experience in Years: Less than 2 Years	2.1 to 5 Years	5.1 to 10 Years	Above 10 Years	Total
Casual	1	37	5	-	43
Contract	2	3	1	-	6
Permanent	3	4	9	5	21
Temporary	16	31	17	1	65
Total	22	75	32	6	135

Source Survey data

Table 16: Distribution of Female Workers across Experience and Employment Status

Employment Condition	Experience in Years: Less than 2 Years	2.1 to 5 Years	5.1 to 10 Years	Above 10 Years	Total
Casual	27	69	3	1	100
Contract	-	-		-	-
Permanent	35	68	27	3	133
Temporary	27	30	3	-	60
Not available	-	-	-	-	38
Total	102	185	40	4	331

Source Survey data

Table 13 Distribution of Male Workers across Employment Status and Monthly Wage

Employment Status	Monthly Wages: Up to 500	501-1000	1001-1500	1501-2000	2001-2500	2501-3000	Above 3000	Total
Casual	20	3	10	10	-	-	-	43
Contract	-	1		-	-	-	-	1
Permanent	4	-	6	2	6	2	1	1
Temporary	17	6	19	15	2	1	3	63
Total	41	10	35	27	8	3	4	128

Source Survey data

Table 14. Distribution of Female Workers across Employment Status and Monthly Wage

Employment Status	Monthly Wages: Up to 500	501-1000	1001-1500	1501-2000	2001-2500	2501-3000	Above 3000	Total
Casual	11	71	18	-	-	-	-	100
Contract	-	-	-	-	-	-	-	
Permanent	-	41	57	10	1	3	21	133
Temporary	5	20	29	4	-	-	-	58
Not available	-	-	-		-	-	-	38
Total	16	132	104	14	1	3	21	329

Source: Survey data.

paid to males is clearly evident. Irrespective of their status, very few women workers earn more than Rs 1,500 p m. Though about 40 per cent of the female labourers perceived themselves to be permanent, nearly 73 per cent of these workers are no different from other categories of labourers viz, casual and temporary in terms of wages earned. They earn between Rs 500 -Rs 1,500 p m. However, none of these perceived permanent female labourers earned less than Rs 500 p m as opposed to the casual and temporary women workers (Table 14).

One significant point to be noted is that about 16 per cent of those who claimed to be permanent among women workers are in the top income bracket earning more than Rs 3,000 p m.

Hence, we conclude that the notion of permanency among the workers is not without any basis as the wage level, at least for some, do reflect the difference. Simultaneously, the perceived permanency has not endowed any extra income as a significant number earn only as much as their counterparts who classify themselves as casual or temporary. Could this perceived permanency by many women labourers be due to more experience? This question emerges as many of our respondents stated that they can work in the same unit as long as they wish unless the unit is closed down. Hence we attempt to relate the condition of employment and the years of service of the labourers.

We find from Table 15 that though 21 male labourers claim to be permanent, only five among them have an experience of more than 10 years while for nine of them, their experience is between five and 10 years. These two groups constitute about 60 per cent of those who perceived themselves to be permanent among male workers. Though we do have such experienced workers among the casual and temporary workers, only 11 per cent of the casual male workers and 28 per cent of the temporary workers have more than five years of experience.

The association between perceived permanency and years of experience among female workers (Table 16) is not found to be as strong as it is among males. While about 66 per cent of the male workers of permanent nature had more than five years of experience, only about 23 per cent among the permanent female labourers have that level of experience. Further, among the female workers, only about 4 per cent of casual workers and 5 per cent of temporary female workers have more than 5 years of experience.

Age of Workers and Level of Experience

We have argued in an earlier section that an important reason for the high level of turnover of labour in Ambattur could be the operation of patriarchal forces, both at the household and at the workplace. Turnover of labour here is measured indirectly through the level of experience. It is true that experience would at best capture only those workers who have stayed on in the market. But for our purpose of understanding whether age is any indication of experience, we need not be constrained by this limitation of turnover as an indicator.

Another question that we had attempted earlier is the level of education of the labour force. We found many women enter high school and quit before completing eighth standard. Have they entered the labour market immediately after school? To answer this question, we relate the age of the workers and their level of experience.

We find that relatively few male workers join the labour force before they are 19 years old (Table 17). This is borne out by the fact that nearly 60 per cent of the male workers whose work experience is less than two years belong to the age group 20-24 years. This should have been the feature even in the past as indicated by the fact that about 50 per cent of the male labourers with an experience of 2-5 years are in the age group of 25-29 years. Similarly, about 60 per cent of the male workers with 5-10 years of experience are from the next higher age group of 30-34 years.

Another notable feature is that since most of the male workers enter the labour market after they had crossed 20, we find every possibility of them completing their schooling.

Among the women workers, about 40 per cent of those with less than two years of experience are not even 19 years old. A few of them seem to have entered the labour market even earlier – they have clocked 2-5 years of experience and are not even 19 years old. About one-fourth of the sample women workers have entered the labour market when they were in the age group of 20-24 years and another one-fourth in the age group of 25-29 years. This could have been the case even earlier. If we consider those with 2-5 years' experience, about 47 per cent are in the age group of 25-29 years. Simultaneously, those who have entered the labour market much younger constitute about 22 per cent while another 22 per cent account for the older age groups.

This indicates the volatile nature of the female labour market in Ambattur. These workers enter the labour market any time but before they are 34 years old. But they do not stay for long. There are only eight labourers in the age group of 34-39 years with 5-10 years experience and there is only one labourer from that age group with more than 10 years experience.

From the above discussion we can surmise the following. while the patriarchal organisation of households enable males to complete schooling, the same structure does not seem to allow the labour market to crystallise in the case of women. The girl children are withdrawn from the school and sent into the labour market even before they are 19 years old. While some others

enter the labour market immediately later when they are 20 -24 years old, an equal number enter the labour market much later even when they are more than 25 years old. Such decisions at a later age to go to work could be due to sheer economic pressure. Probably because of entry into the labour market at various time points, and ages, and also because of being in the job for a short span of time, women workers' wage is clustered at the low end.

Let us now move on to discuss the importance of these wages for the labourers and their households. As we have discussed earlier, patriarchal pulls and immediate material conditions could be working in opposite directions and consequently will have varied meanings for the male and the female labourers.

Marriage is an important medium through which the ideology of patriarchy is operationalised. As we have noted earlier, most of the unmarried women workers felt that their continuation in the labour market would depend on the decision of their marital household. We also noted that about half of our sample women workers are married. This, together with the fact that women workers enter the labour market at various points in their life but stay only briefly, indicates complex processes at work. It is not that the decision to work is made immediately after marriage in all cases. Similarly, it is also clear from our data that the decision to quit is not forever. These are some of the possible reasons for the flux in the female labour market.

Similarly, the material conditions could also vary across households and between natal and marital houses. Besides, the location of the household both, spatially and in terms of resources, is crucial for women's labour. The level of poverty and its intensity in rural as well as urban India needs no elaboration. Added to this misery are the social and cultural practices like marriage and dowry that wreck havoc with the household economies of the workers. While a sizeable number of women workers earn the entire livelihood of their families, there are others who work towards their marriage. Substantial portion of their meager wage is saved to be spent on their marriage. The following section attempts to map the importance of wage income across workers by their marital status.

Family Income and Marital Status

Does the level of family income of the labourers (male and female) vary by their marital status? That may help us to understand the varying levels of contribution of workers to their respective households.

We find that a substantial number of married men and women workers hail from families whose monthly income is less than Rs 4,000 p m (Table 18). This group accounts for about 74 per cent of the married male labourers and 83 per cent of the married female labourers. In contrast, not many unmarried male and female labourers are drawn from such low income families.

It needs to be noted that about 23 per cent of unmarried women labourers are from such families whose monthly income is less than Rs 1,000 and another 21 per cent are from families with a monthly income between from Rs 1,001 to 2,000. This could be the reason why we noted earlier that about 55 per cent of unmarried

Table 17. Distribution of Workers across Age and Years of Experience

Age	Years of Experience									
	Male					Female				
	< 2 Years	2-5 Years	5-10 Years	More than 10 Years	Total	< 2 Years	2-5 Years	5-10 Years	More than 10 Years	Total
Below 19	3	–	—	—	3	40	7	–	1	48
20 – 24	13	12	2	--	27	27	42	3	—	72
25 – 29	4	38	7	1	50	23	87	9	1	120
30 34	2	21	19	1	43	7	40	16	1	64
34 – 39	—	4	3	2	9	5	6	8	1	20
Above 39	-	---	1	2	3	—	3	4	--	7
	22	75	32	6	135	102	185	40	4	331

Source: Survey data

Table 18 Distribution of Workers across Family Income and Marital Status

Family Income Range (Rs)	Male				Female			
	Married		Unmarried		Married		Unmarried	
	No	Per Cent	No	Per Cent	No	Per Cent	No	Per Cent
Less than 1000	1	1.4	3	4 6	13	7.6	36	22 5
1001-2000	17	23.9	7	10 9	38	22 4	34	21.2
2001-3000	17	23.9	13	20 3	65	38 4	21	13.1
3001-4000	18	25 3	7	10.9	25	14.7	20	12 5
4001-5000	3	4 2	8	12.5	9	5 3	26	16.2
5001-7500	2	2.8	9	14 1	10	5.9	13	8 1
7501-10000	1	1 4	5	7.8	—	---	3	1.8
Not available	12	16 91	12	18.7	9	5 3	7	4 3
Total	71	100 0	64	100 0	169	100 0	160	100 0

Source Survey data

Table 19 Distribution of Male Workers across Family Income and Level of Contribution

Family Income (Rs)	Contribution in Percentage				
	< 25 Per Cent	26-50 Per Cent	51-75 Per Cent	76-100 Per Cent	NA
Less than 1000	--	1	---	3	--
1001 – 2000	4	11	-	9	---
2001 – 3000	2	9	13	6	...
3001 – 4000	2	11	6	4	2
4001 - 5000	6	4	-	—	1
5001 – 7500	3	6	—	1	1
7501 - 10000	4	-		–	2
Not available	—	—	---	—	24
Total	21	42	19	23	30

Source: Survey data

Table 20 Distribution of Female Workers across Family Income and Level of Contribution

Family Income (in Rs)	Contribution in Percentage				
	< 25 Per Cent	26-50 Per Cent	51-75 Per Cent	76-100 Per Cent	NA
Less than 1000	—	---	-—	49	---
1001 – 2000	--	36	11	26	—
2001 – 3000	3	63	18	2	–
3001 – 4000	17	22	5	1	1
4001 – 5000	21	6	1	6	1
5001 – 7500	8	3	1	11	–
7501 – 10000	3	---	—	—-	--
Not available	—	—	—	- -	16
Total	52	130	36	95	18

Source: Survey data.

female labourers are contributing to the extent of either three fourths or more of their family income.

Family Income and Level of Contribution

The family income could be the important factor that decides the level of contribution of individual labourers. In the case of males, about 61 per cent who contribute less than one-fourth of their family income are from families whose monthly income exceeds Rs 4,000 p m. On the other hand, about three-fourths of those who contribute between 25 to 50 per cent of the family income are from poorer households with a monthly income ranging from Rs 1,001 to Rs 4,000 p m. Almost all others in higher contribution brackets (that is, whose share in family income is 50 per cent and above) are also from poorer households.

In the case of female workers, about 60 per cent of low contributing women workers (that is those whose contribution is less than 25 per cent of total family income) hail from better off families whose income is more than Rs 4,000 per month. In contrast, about 95 per cent of women workers whose contribution constitutes 25 to 50 per cent of the family income are from such families whose income is below Rs 4,000 p m.

The smaller the total family income the higher the contribution of the female workers About 67 per cent of the female labourers contributing between 50 and 75 per cent of the family income are from families with a monthly income of less than Rs 4,000. Those contributing more than three-fourths to the total family income are from still poorer households. About 79 per cent of such women labourers are from families whose monthly income is even less, that is, less than Rs 2,000 p m. In fact half the women labourers in this category are from families with a monthly income of Rs 1,000 p m.

Thus, we find a close correspondence between the level of family income and contribution level. It also suggests that a substantial section of the labour force is from the poorer households and accounts for nearly half of the family income.

That material conditions do often override patriarchal forces is clearly evident from our analysis. However, for the women labourers, this could be a passing phase in their lives and they may well withdraw (be withdrawn) from the labour market. This is a continuous process. Those who withdraw from the labour market might get back into the patriarchal fold of the household while new ones enter the labour market not necessarily by liberating themselves from these forces, but only to get back into it at a latter date – a decision that in turn would be decided by the same forces.

Such an interplay of material conditions and patriarchal ideology is a boon to employers assuring them of a steady supply of cheap labour. More important, it subsidises considerably the cost of production for employers in several ways·

by enabling employers to hire workers on temporary basis without entering into contractual arrangement that are legally tenable, thereby also enabling the evasion of payment of any benefits (statutory or otherwise) to workers like maternity leave with pay, ESI, PF etc. From the women's point of view, this arrangement inhibits the accumulation of experience apart from exploiting them in every way.

Conclusion

Our analysis has brought out the complex interplay of different factors which in turn renders the job market very volatile, particularly for women [Leach 1993]. Women's labour market seems to be in a constant state of flux. In our view there are several underlying factors and forces that hinder the crystallisation of the labour market for women.

In the first place we find that a good proportion of women labour come from relatively poor households, that is, households whose monthly income is less than Rs 500 p m and/or less than Rs 1,000 p m. Hence or otherwise, the income of these women workers constitutes almost three-fourths or the entire income of their respective families. The gender question comes out very sharply in the matter of contributions to household income; a larger proportion of women rather than men (particularly in poorer households) contribute more than 50 per cent (even 100 per cent) of their household income. In contrast the male share of household income exceeds 50 per cent only in relatively better off households.

Secondly, the fact that women labourers belong to relatively poor households and/or the fact that their contribution to family income is crucial, however does not automatically guarantee the continued participation of these women in the labour market. How long and which women remain in the labour market at any point of time depends on the outcome of the interplay between material conditions and patriarchal forces in operation both at the workplace and in the particular household.

As observed by many others, we also find a high turnover of women labour in Ambattur. But the concept of turnover needs to be problematised since it is not necessarily related to the conventional notion of women leaving the labour market on account of marriage or childbirth. Our study has revealed that the aspect of turnover for women is across age and marital status.

An added dimension to the above problem of rapid turnover of women in the labour market is that it hinders the accumulation of job experience as far as women are concerned [Tam 1996]. It is evident from the study that women have a comparatively poor work experience across age and marital status as compared to men. Thirdly another striking feature thrown up by our study is the inability of larger number of women workers (relative to male workers) to complete schooling. The literacy base for women workers is larger than that for men; but more number of men are able to proceed for higher education whereas larger number of women workers seem to drop out before completing school.

The complex interplay of these (negative) factors manifests itself in several ways: one, we find very clearly that the wages for women workers are clustered at the lower ends of the wage slab. Two, the lesser years of schooling, the inability to accumulate work experience because of being pressurised to quit and/or join wage work at the dictate of (patriarchal) households, limits considerably the type of industries, and jobs within these industries, that women can enter. In our larger report on this study (on which this paper is based) we found that, of the three industries studied, the flexible organisation of the garment industry seems to accommodate women with all their constraints. That is, of the three industries, the women in the garment industry are less educated, have less work experience and also come from families that are relatively poor. In our interviews with these women, we realised that quite a few women consciously opted to enter units that did not demand stringent quality control, precisely because they could not cope with stress both at home and at the workplace. On the other hand, women in the engineering industry showed a distinct pattern; they were more educated, had longer work experience and also came from households whose income levels were higher.

And here lies the gender trap. Very often, policies to increase women's wage employment choose to take the easy way out by facilitating the setting up of industries that are, in official parlance, "compatible with women's household responsibilities" rather than addressing the constraints that force 'women to work in women's work'. Given this scenario it is difficult to come out unequivocally with a clear set of policies that will simultaneously address material conditions and inimical patriarchal forces.

Provision of facilities for completion of schooling, vocational training for skill acquisition, implementation of even existing legislation relating to hiring practices and conditions of work at the workplace, etc, may go a long way towards benefiting labour in general including women labour. But it is important to bear in mind that these provisions will meet only (what in feminist parlance is called) the 'practical gender needs' of women [Moser 1981]. They do not entail a strategic goal such as women's emancipation or gender equality; nor do they challenge the prevailing forms of subordination even though these may arise directly out of them. Having said this however, we do not deny the importance of interventions designed to alleviate the specific problems of women workers. But the limitations of such an agenda needs to be recognised if not at least recorded.

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Disempowered despite Wage Work

Women Workers in Beedi Industry

Meena Gopal

By employing a system of production using contractors and home-based workers, the beedi industry is able to gain tremendous profit with little inputs in infrastructure and comprehensive benefits to labour. The construction of home workers as housewives and homework as a practice that allows a woman to care for children and perform her household tasks while earning much needed income completely detracts from the fact that not only do women put in long hours to fulfil production targets set by employers but have no idea as to how they arrive at the wage levels they set. Women's subordinate status as workers is built into the production process.

THE beedi industry in Tamil Nadu remains largely concentrated in the districts of Chennai, Chengalpattu, North Arcot, Tiruchirapalli and Tirunelveli and in relatively small numbers in Dharmapuri, Chidambaranar and Kanyakumari districts In Tirunelveli district, Melappalayam area of Tirunelveli town and Mukkudal in the rural Ambasamudram taluk are the oldest centres of the beedi industry. In the district today, the system of making beedis in the factories or workshops is totally non-existent; instead, the system of manufacturing beedis through contractors and subcontractors employing home-based workers is the one prevalent. Unlike many other states such as Kerala or even Madhya Pradesh and Maharashtra, in Tirunelveli there is no coexistence of the workshop system and the system of subcontracting out to home-based workers.[1] Apart from this, Tirunelveli was considered conducive by entrepreneurs from neighbouring states and even from states like Gujarat and Maharashtra, due to the abundance of cheap female labour and favourable climatic conditions. The beedi manufacturing companies possess the trade mark to manufacture and sell beedis. They in turn carry out their production through contractors and subcontractors. At present, there are more than 40 such trade mark holding companies and around 1,100 contractors and subcontractors operating in Tirunelveli.

There is a consensus among employers about decentralisation being the most efficient organisational form for manufacturing beedis. The chief administrator and proprietor of one of the prominent manufacturers in the district of the brand Kajah Beedi, says, "the contract system became prevalent because of the stringent labour laws. Prosecution took place if the registers pertaining to the various welfare measures were not maintained. If a person owned five branches, then five different prosecutions were conducted. A second offence meant imprisonment. So we put the responsibility on the contractor. He deals directly with the worker as regards remuneration and all other benefits" (personal communication, Nazrullah, proprietor, Kajah Beedi Company, 1993). By employing a system of production using contractors, the beedi companies are able to gain tremendous profits with very little inputs in terms of infrastructure and comprehensive benefits to labour. These profit making features of the beedi manufacturers are hardly evident in the interface between the contractors and subcontractors, and the workers. It is at this latter level that manipulation by the employers becomes visible.

In the system of contracting out the production, there are essentially two strains. One, where the trade mark holding company provides raw material to contractors, who in turn issue the tobacco and tendu leaves to the workers at the village level and collect the finished product and deliver it to the company. Companies of brands such as Kajah Beedi, Seyadu Beedi and King Beedi belong to this category. For instance, Kajah Beedi's trade mark holding company is called Rajavelly and Company. It has 47 contractors managing its production in Tirunelveli. The shops managed by the contractors at the village are known as 'company shops'. In the second form, the company provides the raw material to a main contractor, who in turn hands over the raw material to the numerous subcontractors who maintain links with the workers issuing them raw material and collecting the finished product from them. In this form the trade mark holding company is also called the principal manufacturing company, while the subcontractors are also referred to as commission agents. One of the largest beedi manufacturers, the Mangalore Ganesh Beedi Company has as its main contractor, the Muruga Home Industries. The units or the shops managed by the main contractors are called the branches. The Muruga Home Industries has 10 such branches The 30 Number Photo Beedi Company known by its trademark name, Bharat Beedi, another large producer in the district has as its main contractor, the Damodara Home Industries. They engage 69 subcontractors for production in the district. The shops managed by the subcontractors (also known as 'commission agents') at the village level are known to the workers as 'commission shops'. All the trade mark holding companies have their headquarters for the district at Tirunelveli, Melapalayam, or Mukkudal. The contractors and subcontractors for the various companies are those who manage the actual manufacture of beedis.

Raw material, both tendu leaves and tobacco, have to be obtained from states such as Andhra Pradesh, Madhya Pradesh, Orissa, Gujarat and Karnataka. Large companies procure raw material through their own agents, who participate in the tender bid of the tendu leaves every year at their places of production in Orissa and Madhya Pradesh. Others procure the raw material from suppliers and agents who travel to and fro and ensure supply. Companies stock the beedi leaves and tobacco in godowns at their headquarters and despatch the necessary amounts to their contractors as and when required. With respect to the payment of wages and benefits to the workers, the maintenance of registers of service, and the accounts of production, it is the contractors and subcontractors who have the responsibility of dealing with the workers.

On an average, nearly 250 crore beedis are manufactured per month in Tirunelveli district by the home-based workers employed by the various companies. Official records indicate that there are 1.8 lakh home-based beedi workers employed by the various manufacturers in the district, as revealed by the number of Provident Fund subscribers registered at the

Regional Provident Commissioner's Office at Madurai. However, a recent survey by a commission appointed by the Supreme Court in 1989 to enquire into the conditions of those employed in the beedi industry in Tirunelveli district, showed that workers including those having to roll jointly with passbook holders, as well as the unofficial 'chittai' (little notebook), when estimated, reveal that the total number of workers is around 5.5 lakh.[2]

The main contractors such as Muruga Home Industries for Mangalore Ganesh Beedi and Damodara Home Industries for Bharat Beedi Company usually have their offices or branches at taluk headquarters. Each of the branches of the main contractor will usually have about 15 to 20 subcontractors who will run the shops in the villages. The main contractor disburses the raw material to the subcontractor who in turn will deposit the finished beedis at the taluk office at least once a week. Here the beedis are bundled and packed and despatched to the sale points after payment of excise duty. In the case of companies of such brands as Kajah Beedi, Seyadu Beedi, and King Beedi, who operate with just contractors, the latter have their shops at the village level. Each of the contractors, and subcontractors in the former case, may maintain more than one outlet at the village level, one of which will be called the main branch and the others, the sub-branches. These outlets are spread amongst adjoining villages within a block. While the raw material that the contractor gets from the headquarters is kept at the main branch in the village and distributed to the sub-branches in the other villages, the beedis that are produced are bundled and packed at the godowns called packaging centres from where it is despatched to the sale points after paying excise duty. Kajah Beedi has three such packaging centres for the whole district, at Tirunelveli town, Melapalayam and Pavoorchatram. The industry thus has a pyramidal structure with its base at the village level and its highest point being the district.

In Keelapavoor block there are more shops in the southern villages than in the villages in the northern part. Due to the predominance of agricultural activity beedi work slackens in the northern parts during the agricultural season. Regular beedi work only begins once the agricultural season is over. Consequently there are fewer company shops in the villages of the northern part of the block, and a predominance of both company and commission shops in the southern part. The oldest established shops in the block are the T P Sokkalal Ram Sait Beedi Company's shop set up in 1944 in Melakrishnaperi and those set up in Poolankulam in 1954 and 1956. Then the Mangalore Ganesh Beedi Company's commission shops began to be set up from 1969 to the mid-1970s in Pavoorchatram and the nearby areas and continued thereafter to expand. Among the company shops, Kajah Beedi and King Beedi brands from Kerala, and Tirunelveli's Seyadu Beedi were established in the late 1970s. The beedi shops expanded further through the 1980s and continued to grow into the 1990s. In the 1970s there was thus an increase in, and consolidation of the commission shops with many new entrants such as the Khiladi beedi, Desai beedi, 5 number beedi, establishing themselves.

The 1990s saw the entrance of many more of the commission shops belonging to Khiladi and Desai, and also the expansion of established companies of brands like Kajah and newer ones like Arasan Beedi. Between 1992 and 1994, 6 commission shops and 3 company shops of brands such as Kajah, Arasan and Seyadu had established themselves in the block. This meant that the beedi business was proving to be quite profitable. There was a consensus amongst the managers, that the shops and their companies were doing good business. Some of them also said that their companies were expanding by establishing new outlets in the district. While this expansion was going on, many shops of the T P Sokkalal Ram Sait Beedi Company were closing down. This was because most of their workers were older women. Younger workers who were skilled in rolling the newer company 'nool' (thread) beedis which used a thread to tie the beedis, preferred not to roll Sokkalal's 'thumbu' (coconut fibre) beedis which used coconut fibre to bind the beedis and was more conical in shape. Thus competition from other brands and companies, and lack of labour with requisite skill were compelling the Sokkalal Ram Sait Beedi Company to close down their shops in many areas of the district.

Interface Between Workers and the Shops

To begin running a shop, the contractors and subcontractors have to possess a Central Excise licence which provides them with the authority to obtain and disburse tobacco to the women workers, and account for the beedis produced and transported. Of the two types of shops, in the company shops the contractors for the trade mark holding company operate by issuing passbooks to the home-based women workers in their name, giving them raw material and collecting the beedis after paying them the wages for the beedis rolled. They also deposited provident fund amounts in their names, and 8 per cent of their total wages obtained in a month as leave wages. This provision exists in the Beedi and Cigar Workers' Act 1966. The leave wages as well as bonus, given to the workers under the Bonus Act, are distributed twice a year during the festivals of Pongal and Deepavali. Despite the fact that the Maternity Benefit Act covered the women beedi workers, it has become effective only since 1988, with the efforts of the women inspector of labour of Tirunelveli district. Even here only company shops have shown a willingness to give women their maternity benefit dues. In addition to passbook holders, there are workers who rolled in 'joint' status worked along or jointly with passbook holders. They received the wages only for the beedis rolled. The shopowners claim that once these workers' skill and proficiency are established, they too would be issued passbooks. But whether this claim was true became clear, as we shall see later, from the evidence of the women workers in the shops. The company shops are strict about the quality of their beedis, the reporting time for delivery of beedis, and insistence that the workers present themselves in a neat manner.

In the commission shops, the subcontractors operate with the brand name of the principal manufacturing company. These subcontractors, also called commission agents, obtain a commission of 80 to 90 paise to Re 1 or even Rs 1.20 per 1,000 beedis collected and sold, depending on the brand of the beedi from the main contractor. They exercised arbitrary powers because of their weakened links with their principal companies, and the informality governing their relations with workers. The commission shopman collects a bundle extra for every 10 bundles rolled, called 'podu vandal' and thus took from the worker 100 beedis for every 1,000 beedis as his 'own commission' from the worker. While passbooks were issued to women, and a few workers also retained as joint rollers in these commission shops, the subcontractors of some of the manufacturers, such as Mangalore Ganesh Beedi Company (at the time of the study), did not issue the passbooks in the names of the women, but in the name of a male member of the family or even a neighbour to avoid giving maternity benefit. Another dominant practice in these commission shops was the issue of raw material to workers on a little notebook called the 'chittai'. Young girls who are

just beginning to learn to roll beedis or older women whose beedi quality may not match the best quality are given the raw material, but without recognition of a passbook. The workers might not be paid their provident fund amount, bonus and leave wages and maternity benefit, or if so, infrequently. However, in an atmosphere of informality, the shops are also not strict about the quality of the beedis submitted, the time at which one reports at the shop, or even the regularity of rolling.

Sometimes subcontractors of smaller brands will also provide raw material to women in any one of the villages they have shops in, for a non-recognised brand, apart from the regular brand they sell. Women identify this practice as a constant changing of thread of the beedis they roll for. The shopowner may be a resident of a neighbouring village and thus familiar to them, as the shopowners indulge in such practices only after they have established sufficient rapport in a village. One such subcontractor had shops in Pavoorchatram and Tippanampatti, with his main contractor the Malabar Beedi Company headquartered in Tenkasi He would sometimes give the workers green thread and sometimes pink thread to bundle the beedis. The beedis of these non-recognised brands would then be sold to other contractors or to retail outlets. One of these was an imitation of Seyadu beedi, which the women called 'short Seyadu', quite pungent in flavour and very popular in the hill districts of Kerala.

Apart from these two types of shops, there are also traders who set up shops without possessing a brand name. They operate on a small scale with a declaration of annual production less than 20,000 for which there is exemption from the Central Excise licence. Characteristic ally these shops issue raw material and collect the beedis at an appointed hour during the day or night. They may or may not be regular in paying the wages, but will suddenly remove their shop from its place and vanish with the beedis, raw material, money et al, leaving the workers in the lurch. They too indulge in the practice of 'podu vandal', of taking from the worker 100 additional beedis for every 1,000 beedis rolled. They sell their beedis to contractors or bigger merchants who sell it to retail outlets. While they operate they may pay good wages without the passbook and hence no other benefits, and even issue good raw material which was appreciated by the women who rolled for these shops, and they will sell their beedis in an unauthorised manner across the border in the hill districts of Kerala. The shops run by these traders and the smaller subcontractors who sell the non-recognised and imitation brands are popularly known as fly-by-night shops.

Working of the Shops

The beedi shops in Keelapavoor block employ only women as beedi rollers. In parts of the neighbouring Alangulam block, men also work as beedi rollers. A well-established company shop usually has more than 200 workers working for the shop. In Keelapavoor block, both Seyadu and Kajah Beedi company shops, have the highest number of 388 and 362 workers with passbooks, in two of their shops, on their rolls. The distribution of workers in the two types of shops tells us that out of the 50 shops surveyed in the block 19 commission shops have less than 50 workers, while there are none amongst company shops. Eight commission shops have between 50-100 workers, while it is so only in one company shop. There are six shops in both the company and commission shops having between 100-200 workers. And while nine company shops have more than 200 workers, it is only so in one commission shop. Thus commission shops extract the maximum from workers by keeping small and numerous establishments indulging in a variety of arbitrary practices.

Not all workers are issued passbooks. Besides passbook holders, there would be at least half as many 'joint' workers. Incidentally, this practice is more in company shops. A 'joint' worker does not possess a separate passbook but is issued raw material on another worker's passbook with whom she submits her beedis jointly. The joint worker's dues such as wages, provident fund amount, bonus, and leave wages are paid to the passbookowner. The passbookowner deducts her own share and hands over to the joint worker the rest. According to the managers, the joint workers are on test for their skill and proficiency and would soon be issued passbooks. However, many workers claimed that they had remained joint rollers for many years.

The shops also employ men generally as beedi checkers. Company shops have two or more checkers, apart from the disburser of the raw material, called the 'tandoor' who weighs and gives the requisite amount of the leaves and dust to each worker. There are also one or two men who work as stackers of beedis. Seyadu Beedi Company dispensed with this worker and they arbitrarily make the women themselves stack the beedis onto the trays and place them in the sun for curing. Besides, some big companies have packers and labellers in their premises, who work on a piece rate basis.

All the company shops have regular timings from 9 am to 1 pm and 2.30 to 6.30 pm. The commission shops generally open for collection and disbursement for two to three hours, any time of the day between 9 am and 7 pm. This was because one subcontractor would be managing two or three outlets and would have to adjust his time and presence between them by staggering his timings at each outlet. A worker hardly spends 15 to 30 minutes in the shop everyday, given the fact that she produces the beedis in her home. Normally in the company shops where there are set timings to report for giving in the beedis, there may be about 20 to 30 women at a time in the shop. In about half an hour they are sent off and the next lot comes in. In commission shops almost all the women report at the same time.

The company shops insist that women come well-dressed to the shops, with hair oiled. The shopmen draw a parallel saying that just as women in towns go dressed well to offices so also the beedi rollers should come to the shop dressed neatly. This, however, is for the brief 15-30 minutes spent in the premises of the shops to deliver the beedis. Their dealings remain at a personal level, as there is no opportunity for any collective work at the shop.

In payment of wages, arbitrariness was evident. Thirty of the fifty shops paid the wages on Saturday on a regular basis. Nine of the shops paid it on a Thursday or Friday, while five of them paid it on a Sunday. The shopowners had control over the workers by making them come on a holiday to receive their wages or in arbitrarily shifting the date of payment.

An insight was obtained into the shopowners' perception of women's beedi work when 28 of the 42 shopowners interviewed responded by saying that beedi work was spare time work for women. Some of them even qualified it by saying it was work that women did in their free time. Eleven of them said that if it were made a full time work with regular hours of work in a shop or factory, women would not agree to come. They claimed that the women would then not gain the advantages they now had, combining it with their household work and care of children, seeking the help of assistants, which would be lost with supervisors in the workshops hovering over them. Three of the shopowners however admitted that making beedi work into a full time activity meant a greater risk for them, as they would need

a place to house the workers and more staff to supervise and check their work.

The Production Process

The actual labour process of producing the beedis takes place in the homes of the women workers. To understand the details of these mechanisms we chose to look at the village dynamics in Kalloorani. The process of rolling beedis is broken up into various steps and often split among various persons. On return from the shop, the leaves have to be soaked. Once the water drains off, the leaves are cut into rectangular pieces using an 'ace'. a rectangular metal strip, for measurement. Each brand had slight variations in their 'aces'. Then the pieces of leaves are folded in a piece of sack cloth or plastic sheet to retain the moisture till they are rolled. Cutting the leaves is a very skillful job and is done by the beedi worker herself. The responsibility of cutting leaves is shared with younger girls only after the latter have attained sufficient skill. The beedi worker herself does the main work of actually rolling the leaves placing the tobacco dust inside and binding it with a thread. The final action consists of folding the top end of the beedi using a metal stick. This action is often the first piece of work that is handed over to younger girls, when they are initiated into beedi work. Often older women or handicapped women and girls are 'paid' for folding the ends of the beedis and bundling them, at the rate of 60 to 70 paise for every 10 bundles of 14 or 15 beedis. Women sublet this part of the work so that these older and handicapped women earn a few rupees as their livelihood.

Beedi work thus involves women who integrate their lives with their work. These include women and girls folding beedis and assisting other workers, alone or with other labour, or rolling beedis for others all of which constitute the informal beedi work outside the shop sector (Table 1). Young girls from poorer households as well as women who are socially and physically handicapped would be, as we have noted above, among those folding beedis. It is here that the extremes in ages are evident. In Kalloorani, while there are 66.7 per cent and 50 per cent girls below 15 years from the SUPP and SURV representing the poorer (support and survival)[3] households respectively, girls from the (well-off) ACC1 and ACC2 households are comparatively lesser with 33.3 per cent and 31.2 per cent respectively. During agricultural off-season or when there is no work within the households, elderly women from well-off households, help the younger women by folding beedis. More women than girls combine assistance in folding with other labour such as agricultural work. Older women from well-off households, with 23.4 per cent and 18.8 per cent in ACC1 and ACC2 households respectively, help their daughters or daughters-in-law, while women from the poorer households with 15.7 per cent and 50 per cent in SUPP and SURV households, supplement their incomes in other labour, along with beedi work. Women who could afford to spare a little time but who also wished to stay out of the competitiveness of the shops, rolled beedis for other women and were paid by them. Thus, the burden of assistance by which the shops gained, was passed onto the younger girls and the older women of the poorest sections, as well as the women of the well-off households. The women of the poorest households had less choice but the women of the well-off households could afford to take this burden.

Girls gradually try and make their way into the shops while the older and indigent women remain out of the competitive circuit of the shops. Within the commission and company shops, passbook holders, joint rollers and 'chittai' holders worked side by side (Table 2). This disparity in status between the workers even within a single shop is often a reflection of their families' position in the social structure, as well as their own status within the households. In both the company and commission shops, women from the richer households are in greater number as passbook holders. In the company shops, 50 per cent women of the ACC1 households have passbooks, while the SUPP and SURV households have 44.5 per cent and 45.2 per cent women with passbooks. In the commission shops too, 20 per cent women of ACC1 households have passbooks, while 18.6 per cent and 16 per cent women have passbooks in the SUPP and SURV households, respectively. The ACC2 households have a slightly smaller proportion of women possessing passbooks. Thus the well- off households had an edge over other households in having the most secure status, which was ensured to them with passbooks in the shops.

The joint rollers are women from the less advantaged groups. This is particularly so in the case of younger girls who are eager to prove themselves and obtain a passbook soon. The proportion of joint workers are seen more in the company shops and amongst the older women as seen in the 22.8 per cent women in ACC2 households, 13.9 per cent in the SUPP households and 9.7 per cent in the SURV households. Here, the ACC1 households were seen in smaller proportion and hence less manipulated.

Issuing raw material on chittai is evident only in the commission shops. Here, interestingly, women from the richer households and those who survived only on beedi work are found in greater numbers, seen in the 19 per cent women of ACC1 and 19.4 per cent of the SURV households (Table 2). It meant that those who needed extra money and those who had no choice for survival worked shoulder to shoulder on chittai in the commission shops. Thus, women's disparate presence in the production process presented a fertile area for their further manipulation and exploitation in the working of the industry.

Table 1. Informal Women Beedi Workers Outside Shop Sector in Household Categories (Kalloorani)

Activities of Informal Beedi Work Outside Shop Sector	Age	Household Categories*									
		ACC1		ACC2		SUPP		SURV		Total	
		N	Per Cent	N	Per Cent	N	Per Cent	N	Per Cent	N	Per Cent
Folding beedies	<15	10	33 3	5	31.2	34	66 7	2	50 0	51	50.5
	>15	11	36 7	7	43.7	8	15.7	-	-	26	25.7
Folding beedies with other work	<15	1	3 3	..	..	..				1	1.0
	>15	7	23.4	3	18.8	8	15 7	2	50.0	20	19.0
Rolling beedies with or without other work	<15	..		.	.	1	1 9	.	.	1	1.0
	>15	1	3.3	1	6 3	..	.	.	.	2	2.0
Total		30	100	16	100	51	100	4	100	101	100

Note: * See end note 3.
Source: Gopal Meena, 'Labour Process and Its Impact on the Lives of Women Workers: A Study of the Beedi Industry in Keelapavoor Block of Tirunelveli District', unpublished PhD thesis, Centre of Social Medicine and Community Health, JNU, New Delhi, 1997.

Arbitrariness in Terms of Work and Relations of Labour

In the working of the industry, at the level of the shops, different shops had different degrees of attraction for the workers. And even within a single shop workers had different types of relationships with the shop managers. Very often these personal relationships became central in getting them jobs and privileges. Arbitrariness is reflected in the different dimensions of work.

In the nature of formal controls, it is only in company shops that a passbook holder feels secure. Though she realises that her labour is strictly controlled, she feels assured of a proper issue of raw material, wages, benefits like provident fund deposits, bonus and leave wages. If the worker is ignorant of her right to maternity benefit she stands to forfeit it, as usually the company shop does not initiate the payment to the worker. Some companies like Kajah Beedi usually do not deprive the worker of her due. The joint roller does not possess a worker status as she does not have a passbook at all, and receives her wages due for the beedis produced. The company shops take in younger women as joint rollers. The shop owners claim that a joint status is retained till the worker is sufficiently skilled for the period of a few months after which she would be issued the passbook but often this continues for years and in many company shops the ratio of main to joint workers is 2:1 or even more. So if a shop claimed 300 workers on its rolls, the actual number on rolls would be 1½ or twice that number. Sivanammal,[4] who has been rolling 'joint' with her husband's second wife, who also lives in the same household, feels resentful that she is not given a separate passbook but has been forced to continue for many years now as a joint roller, because the shopmen ask why should one household require two passbooks. Often if there were two girls in a family, the passbook was issued to the younger sibling taking the older girl as a joint roller, for if the latter was married then the passbook would have to be altered sooner.

Most other workers are issued raw material with entries made in a little notebook called chittai. The chittai holders are like the joint rollers of the company shops, the only difference being that here, the worker is in a more vulnerable situation and may never graduate to a passbook at all. Such workers receive no benefits and could never hope like the joint workers, of one day obtaining a passbook in their own name.

Child labour is a common practice and operates chiefly at the level of the commission shops. The commission shops absorb young girls of 11 or 12 giving them raw material on the chittai. Chittai workers do not receive any of the benefits given to passbook holders such as provident fund amount, bonus and leave wages. The workers on chittai in the commission shop are paid less wages. The benefit of this unrecorded workers' labour produce goes into the contractors' pocket. In each of the household categories in Kalloorani (see Table 2) 1 to 3 per cent of workers are below 15 years on both joint and chittai. Keeping women and girls as joint rollers and chittai enables the shopowner to maintain his control over them.

Informal relations extend to utilising caste identity for recruiting. Thenkani, 12, who belongs to a support household and is a daughter of a washerman, was sent off to roll on a chittai, for the Desai beedi commission shop in Tippanampatti, 1½ km away, which was run by a man from their caste. "I roll for a shop run by our people", says Thenkani proudly showing off her awkward looking beedis as her own contribution to the commission shop. When the youngsters attain sufficient skill, older women take them to the company shops and recommend them to the shopowner, who, if satisfied and depending upon his relation with the woman recommending, takes on the girl as a joint roller. Women and girls' access and entry into either the commission shops or company shops thus depend upon the contacts they have with older women. If mothers, sisters, or aunts rolled for commission shops, girls could also soon earn a passbook, as informal relations play a far greater role in a commission shop then in the company shop.

Apart from recruitment and the issue of passbooks, where the informality and hence arbitrariness between shopmen and workers exist, it is even more evident in the ensuing relations between them. From the moment the women are inducted into the shops, though legally they cannot be harassed except for some gross misdemeanour, their actual working relationship with the managers depends on the personal relationship they have established and often are subject to the whims of the managers. The informal relations with the shopowner gives him licence to behave in an arbitrary manner. Those who cannot really strike a good rapport keep a low profile. Though there have been some efforts at unionisation it has not had any effect on the commission shopowners, who receive the support of the bigwigs of the village.

Indulging in favouritism and partiality towards some of the workers is a practice less commonly seen in the company shops

Table 2: Women Workers' Status Within Shop Sector Categories (Kalloorani)

	Status of Worker	Age	Household Categories*									
			ACC1		ACC2		SUPP		SURV		Total	
			N	Per Cent	N	Per Cent	N	Per Cent	N	Per Cent	N	Per Cent
Commission Shops**	Passbook holder	<15		.	..	.	.	.	1	3 2	1	0.1
		>15	35	20.2	20	13.4	68	18.6	5	16.1	128	17.8
	Joint worker	<15	2	1.2	1	0 7	8	2.2	.	.	11	1.6
		>15	2	1.2	9	6 1	8	2 2	1	3.2	20	2.8
	Chittai worker	<15	2	1 2	3	2 0	8	2.2	..	.	13	1 8
		>15	33	19 0	17	11.4	55	15.0	6	19 4	111	15.4
Company shops**	Passbook holder	<15	..		.		..	.	..	..	..	..
		>15	87	50 3	63	42 3	163	44 5	14	45.2	327	45.5
	Joint worker	<15	2	1.2	2	1 3	5	1.4	1	3.2	10	1.4
		>15	10	5.7	34	22.8	51	13.9	3	9.7	98	13.6
Total			173	100	149	100	366	100	31	100	719	100

Notes. * See end note 3

** In the company shops, apart from passbook holders, there were the joint workers who rolled along with the passbook holders, having no legal recognition. This system was also evident in the commission shops. In addition, another practice, seen only in commission whops was issuing raw materials maintaining the account informally in a little note book called 'chittai'.

Source: Gopal Meena, 'Labour Process and Its Impact on the Lives of Women Workers. A Study of the Beedi Industry in Keelapavoor Block of Tirunelveli District', unpublished PhD thesis, Centre of Social Medicine and Community Health, JNU, New Delhi.

and more in the commission shops. Because a higher degree of informality prevails along with women's almost non-existent bargaining power. Women who belong to the well-off households assume for themselves a special status within the shops. They receive favourable treatment from the shopowner, either because their husbands are prominent persons in the village, or due to the degree of informality with the shopowner being greater. With such of his favourites the shopowner is lenient, he even enjoys the vulgar talk of some. Ranjitha related an incident where a women of her own barber caste who, when asked by the shopowner why she was late to the shop, said, "perhaps if I only wore underwear, I could run and reach the shop. It is this saree which has delayed me." Such talk amused the shopmen. With others, if he is annoyed, he is ruthless and breaks their beedis.

Apart from manipulating women through a system of hiring of workers on the basis of personal preference, shops sometimes indulged in arbitrary practices under various pretexts and rationale. Under exploitative practice of 'podu vandal', that is, of taking a certain number of beedis from the worker in the commission shop as his own commission as the raw material is issued and the beedis are collected, the shop managers insist that the worker does not keep back left-over raw material. Then only are they issued fresh raw material. It is in the case of raw material that this arbitrariness is mostly seen. Some of the commission shopowners and even company shops at times issue poor quality raw material. In such cases, women workers are unable to produce 1,000 beedis with the given raw material and end up producing 800 beedis or so. The worker remains fearful that if she argues, the shopowner would withhold further issue of raw material to her. If he did so, it would eat into her wages, as she would have to supplement with raw material from the market; or she would lose wages if he did not give her raw material. He could use reasons such as her irregularity on account of her illness, or her lack of sufficient skill to withhold issuing raw material.

Company shops practise the quota system where they reduce the quantity of raw material issued to half, for two to three days per week telling the workers that sales are less due to monsoons or that beedis are not drying. In the rainy season, tobacco will clot on absorbing moisture and will not smoke sufficiently. Sun-cured beedis are kept for about 16 hours at 104° F temperature in the sun. They have a life of six months. During the rainy months when the beedis are furnace-baked for about six hours at 110-115° F, they have a life of only two months. In such cases, beedis cannot be stored for long periods of time, neither can they be transported efficiently. Therefore the employers pass on the burden to the workers by reducing the tobacco issued to them, saying it would also instil in them a fear of penalty for wastage. Women, being unaware of these detailed processes of storage and transportation and markets, accept the rationale of the employers. With their weak bargaining power they are not able to resist or protest, and claim their due of raw material and wages. In the commission shops, the shopowners refuse to issue raw material on Thursday if the workers have left-over raw material from that given them during the week. The employer makes the workers believe that this is to wind up the account the following day and complete the account for the week. There are also sudden closures affecting work and payment of wages. Delayed payment of wages and reducing or withholding benefits like leave wages or bonus are other practices. Workers who are consistent in rolling, face hardships at such times, having committed payment of chit money or settling weekly debts.

The absence of strong unionisation further adds to their inability. In day-to-day work dynamics, the shop managers have the upper hand. They control timings for reporting at the shop, the quality of the beedis that are brought in and the manner of appearance and presentation of the worker. In the face of the arbitrariness that prevails women are in no position to assert themselves and invoke the laws on payment of minimum wages, bonus and even maternity benefit.

Women's own limitations are the basic lack of knowledge of the outside world, their illiteracy, their feeling of lack of control of their worker status and their relationships at the shop. Practices at the level of the shops such as arbitrariness in raw material delivery and beedi collection, the quota, and sudden closures further add to their difficulties. Burdened by the mechanisms of the shop level functioning and their own perceptions of their position as workers, women are kept out of bounds of the larger and higher levels of the working of the industry. They remain ignorant of the markets their beedis go to, the relations at the level of the district between their shop and the headquarters and the dynamics there, as well as other aspects of the beedi industry of which they are workers. There are those women who understood to some extent what was happening but felt constrained to do anything for lack of support. One of them said, "These women are fools, and they do ask questions in the shops. For them the owner is big brother, and their retort is why should we do him harm? They don't know that he is eating from their labour". Various matters keep the women and girls away from the knowledge of the goings on in the shop. Their interest is kept occupied by the clothes they wear, the jewellery or the flowers they don. This of course occupies a prominent place because of the shop's insistence that women come dressed neat and clean to the shops. While one girl's desire to earn is spurred on by her observation in the shops of how others of her class come to work, another says, why should we know what goes on inside the shops as long as we get the raw material and wages.

Women's Options and Choices of Survival

The opportunities for women in beedi rolling exist in both the company and commission shops. In the company shops women have to demonstrate their skill in rolling beedis as required by their shop. Only when the managers are satisfied, the women are taken on the rolls. However, many of the women choose to roll for the commission shops, despite realising that they lose out on benefits like provident fund deposits, bonus and leave wages. They are even prepared to give extra bundles as podu vandal and often they may themselves have to make up for the shortage of the raw material supplied by the shops. There are two sets of reasons which can be identified to explain the choices women make. The first set of explanations lies in the women's place within the families and their social roles. The second set of explanations is in the socio-economic positions of these women's families and the centrality of beedi work for their economic survival. The combination of both these factors constitutes the rationale behind these choices.

Women preferred to roll for these commission shops because of certain advantages they gained compared to the company shops such as, (a) flexibility: women can submit less beedis leaving the balance of raw material for longer periods, unlike other shops. Also regularity here is not a stricture. The shopwowner also issues more than 200gm of tobacco per person, if she is capable of rolling. (b) Timings are not strict and women can go late, but within the reporting hour which is a big concession. (c) They can loan beedis from others

in plenty which may compromise on quality, which is tolerated less in company shops.

Old women in families or those who live on their own roll for these shops, being unfit for hard strenuous labour or unable to satisfy the quality rolling for the company shops. Apart from them, in the commission shops are those who are still in the transitional stages of learning and stabilising within their families. First, there are those who are unskilled, having begun to roll late in life and who are still sharpening their skills in beedi rolling. Then, there are those who were recently married and have to change their place of residence. In the stop-gap period of obtaining a new company passbook, they choose to roll for the commission shop. Finally, those with young children to look after, who have to breast-feed along with managing household chores, prefer commission shops.

Table 2 shows the distribution of beedi workers, women as well as girls in Kallooram, rolling for the company and commission shops. All the women and girls either have passbooks, or are rolling jointly, or on a chittai in both types of shops. The women from the ACC1 households have an edge over the women from other economic categories in holding passbooks in company and commission shops, reflecting the benefits they gain in both their formal and informal relations with the shopowners. While 20.2 per cent of the ACC1 women are in the commission shops, the proportions are 18.6 per cent in SUPP, 16 per cent in SURV households, respectively. Thus, perhaps social contacts and personal relations have more to do with getting a passbook than economic power or need. Apart from holding passbooks in both the company and commission shops many women from the ACC1 and ACC2 households even roll on chittai to augment their incomes, seen in the 19 per cent and 11.4 per cent of women, respectively from these households. On the other hand, it is the need for economic survival that prompted women from support and survival households to roll on chittai, indicated by 15 per cent and 19.4 per cent women from these households, respectively. The struggle for survival also compels them to accept the arbitrariness of joint rolling in company shops, seen in the 14 per cent and 9.7 per cent women from SUPP and SURV households, respectively. In ACC2 households,a considerable proportion, i e, 22.8 per cent women roll jointly in company shops, and 11.4 per cent women roll on chittai in the commission shops. They compromise by rolling for these shops in these statuses because the women's priorities lie in helping their families in household trades and businesses, while also earning and accumulating from beedi work.

Changes and Continuities

Given that women enter the labour process as young girls and continue as long as they can, sometimes ending up as assistants to their daughters and daughters-in-law when their capacities for beedi work have reduced, they spend almost a lifetime in the beedi industry. Continuities and changes, therefore, are not difficult to observe. The major continuities are the constant pressures in their lives from the shops, their own families and the social situation in which they find themselves.

Pressures are kept up by the shops about timings of delivery, the quota and quality of beedi rolled. These tend to get reflected in the day-to-day activities of the women workers which form a tension-filled routine. These pressures at the shop level are important because they influence women workers' relationships at two levels, between women workers themselves and within the household. Selvamuthu who is widowed, rolls for the Kajah beedi company shop at Kalloorani and is a passbook holder for the past six years. However, she also works as a child nutrition worker (CNW) at the noon meal centre. She has good informal relations with the shopmen who allow her to give and submit the beedis either through her sister or the ayah, both of whom also assist her in beedi work, when she has to go for duty to another village. She herself is also a conscientious worker. On the day of the village festival, she sat up till 2 am to finish 37 bundles, but still fell short of 13 bundles for the morning, since she also had to go for work to Ramachandrapatnam the next day. She says, "I cannot also give up the passbook because of the provident fund amount." Being widowed with two young sons, she needs every rupee she earns. On this count as we shall see later, Selvamuthu's as well as other's lives, are governed by the clock where every minute counts to roll, deliver and give account of the beedis. In other instances, girls wake up in the middle of the night to finish their beedi work which was halted on account of power cut, just so that they could settle the account the next day and not leave any pending submission.

While the shops exert their pressure on women, families have their own demands. The richer families direct their girls and younger women to save for the dowry, while in the less advantaged households the family demands that the money the girls earn is usually given to the family kitty. From that they can take and buy if necessary, soap, oil, hair clips, ear drops, powder, bindi, etc, but they were not to waste it and the girls complied. Added to this, relations and loyalties which evolve within the social circle exert their own constraints. If a commission shop has sufficiently established itself in an area, workers from within its catchment area find it difficult, having spent sufficient time and skills in this shop, to move out of it to a company shop, especially due to informal relations and loyalties built up over the years.

However, various discontinuities or breaks also mark women's beedi rolling trajectories. Many women are forced by social and economic circumstances to opt for beedi work and away from occupations such as agricultural labour. They find beedi work a hard compromise and do not gain as much as those who begin rolling when young. As Maniammal a former agricultural labourer who has had to do beedi work after her marriage says, "Before marriage I did not know beedi rolling, only for the past 19 years after marriage I have learnt it". Not being as skilled as the other women to progress to the company shop she continues in the commission shop. "Earlier, I used to do agricultural labour, where one works from 10 to 3 in the day and gets Rs 20-25. I prefer that, where one works hard, comes home to sleep well and won't fall ill. Beedi work makes one fall ill; one is often tempted to fall asleep, feeling dull and lethargic and don't want to go to the shop. When at the end of the week, we get our salary we feel ashamed as others get in 100s while we get in 10s."

Marriage marks the break with the beedi shop, if women have to move out into another village. Then she either opts for a commission shop or seeks a passbook in the company shop depending on her circumstances. Once in a company shop, she continues for many years till she wants to give up rolling or shifts to another shop, until which time her provident fund amount gets deposited and depending upon the level of arbitrariness, she gets her bonus and leave wages.

The next shift occurs at childbirth when women's energies are chiefly directed towards the care of young children. Women are forced to roll less if they have a company passbook or give it up and opt for a commission shop passbook. In survival and support households, where they might not even have assistance they are

forced to give up. Women who are well into their middle age and have teenage daughters to assist, roll for a multiplicity of shops. They will possess a passbook with one of the younger girls rolling jointly with them, while another daughter will possess another passbook in another shop. Such women are well on their way to accumulation through beedi work.

INTERACTION WITH OTHER WOMEN WORKERS

We have seen earlier that the industry indulges in various arbitrary practices that not only maintains control over the workers but also heightens their exploitation. What is significant is how women with the ingenuity use several coping strategies to retain their new found advantage of having a job. At one level are the choices women make for themselves to consolidate their position in the labour force. Another means of survival within this stressful situation was by evolving differing working relations with the other women workers. Efforts at unionisation also form part of these coping strategies. As beedi workers, women's interaction with other women form a vital part of their relations of production.

An important feature of daily beedi work is that most women cannot roll all of the 1,000 beedis in varying bundled forms themselves. Every woman borrows at least half of the beedis from three to four other women. Women pick up the beedis en route to the shop themselves or send children to retrieve the lent beedis. The woman rolling for the morning account borrows from the afternoon account person, and after returning from the shop has to sit down immediately to roll for the afternoon person. This takes place across socio-economic categories. Besides this mandatory loan and receipt of beedis, there are many other phases of beedi production where women interact between themselves. While some features bring women together, most others divide them apart. In some, women themselves take on an exploitative role.

Within the community itself women sublet the various tasks of the beedi production amongst their own family members or even to outsiders such as old women or handicapped women who have a need to have some earnings to survive. Workers juggle around their submission of beedis for the various shops depending on their experience and skill in rolling for a multiplicity of shops. Pappa, who is widowed and has two daughters, aged 13 and 11 has three passbooks. She rolls for King Beedi company shop, with her sister Rajamani as a joint worker along with her daughters. Pappa has also been smart enough to own another pass book at the newly-opened Kajah beedi company shop at Malayaramapuram where she rolls for 200 gms, without the knowledge of the shopowners, since one cannot roll for two company shops simultaneously. Further she also makes her younger daughter roll for a commission shop and chips her own bit for the girl to submit. Not all women however are able to do this and this keeps women divided in a way.

The quantities women produce or the number of shops they work for depends on each person's situation within the household. Thus, women-headed households which also are able to get help from younger girls, are sometimes able to accumulate unlike other households. Others who are not able to roll for a multiplicity of shops due to the pressure household work, feel remorseful or envious of those who can manage this. Their personal constraints become the source of division between them and not the wages or conditions of work. In their borrowing and lending interaction with other women their relations are not always smooth. The strictures put on them at the beedi shop as to the size and quality of the beedis, and its freshness are also the criteria used by them for each other, as quality will be forfeited when work is split between differentially skilled persons. So women's choice of two or more people from whom they can borrow is settled only after much trial and error, and risk of rebuke from the shopmen.

Another feature evolving out of this borrowing and lending interaction which is quite detrimental to the women is a phenomenon called 'vatti' (interest) beedi. Certain women who often belong to the well-off households are able to produce and circulate excess beedis and they loan beedis to those who need them on interest When sudden emergencies occur or work pressure at home increases, or when women are unable to fulfil their quota of beedi rolling for the day, they are compelled to borrow beedis on interest. Irregular beedi rollers are frequent borrowers of beedis on interest. If 10 bundles are borrowed they have to be returned with an interest of 1 to 2 or even 10 bundles with each passing day. A woman takes a tremendous risk by borrowing beedis thus, as the interest on the loaned beedis keep accumulating. Extreme examples abound where girls have sold off their ornaments to pay off the accumulated interest, with some even committing suicide being unable to repay the interest.

As a matter of fact, almost every woman has had to borrow 'vatti' beedi at one time or another, but Selvamuthu spoke of how her neighbour, Ponnammal, being an irregular roller and quite irresponsible too, often took 'vatti' beedi and was forced to sell her jewels. This phenomenon of interest beedi is looked upon by the women especially those at the receiving end, with distaste and fear. Distaste, because it works to the advantage of those women who can roll in excess and at the expense of the vulnerable and most pressured women in other less advantaged groups. And fear because they never know the moment when they would be compelled to loan the vatti (interest) beedis for themselves. Some of those who deal in vatti beedis also keep small amounts of loose beedi leaves and dust to sell, taking advantage of women's need to substitute the poor quality of raw material given at the shop and their inability to rush to the main hamlet to buy leaves and dust. They are many little shops in the main hamlet of Pavoorchatram, where retailers sell beedi leaves and tobacco dust of various flavours or degrees. These shops exist and flourish because the beedi shops, mainly the commission shops, indulge in the practice of supplying poor quality raw material Another innovative practice evolved by the women to meet impending crisis was the beedi-chit. Groups of ten or more women, usually neighbours, most often those rolling for a similar type of shop, which means having the ability to roll similar type of beedis,come together. Each rolling a bundle extra and picking lots as to whom the sets of bundles pooled that day would go to, was the method by which the chit fund worked. It resembles a co-operative effort if all women rolled conscientiously, in a manner similar to that of pooling money saved and offering it to the members of the group on a lottery basis.

Despite the beedi work being home-based and women separated from one another due to the individual responsibilities of their homes, they do it and work in small groups within or outside the homes. This seating arrangement of course depends on the seasons too. During the windy season in March and the rainy months of June-July and October-November women have to keep indoors, as the tobacco flies off their trays due to the wind outdoors. During summers women usually sit outside their homes under the shade of the neem trees Not only do women sit and work together because it is natural for them to come together and work in a rural milieu, but as most of them admitted they feel lethargic and are often tempted to go

to sleep when left to themselves. Many women, however keep away from group work and the risks of quarrels and prefer to stay within the threshold of their homes and work on their own.

Even though women may work in small groups the cohesiveness that exists amongst them is very fragile. While working they are always exchanging views with one another and their conversation more often than not becomes abusive or quarrelsome. Familial strife or disputes interfere with their work camaraderie and the exchange sometimes become extremely abusive and divisive. Where cohesiveness persists amongst the women, they exchange information about themselves, events in the village and its people. Often, some women spice these with raunchy jokes and gossip that keep them entertained. Children, especially young girls and even boys at times, if they have dropped out of school, are an important component of these groups. Intermingling with this fragile cohesiveness is a palpable rivalry amongst the women. A majority of the women said that beedi work did not create any unity amongst them, only jealousy. Their refrain was: "in this village, women due to their jealousy will not allow the other to prosper". As we have seen earlier, many of them work hard to earn and often force their teenage daughters to roll as well. The degree of their strictness or leniency varies. Many of them served as models or ideals of accumulation whom others tried to emulate while also feeling envious about their abilities. The adjustment and adaptive processes created by the women deprive them of bargaining power and unity against the employer. Instead, their tensions and pressures of work get transformed into anger against each other or envy and resentment. Only a few retain friendly relations while continuing to loan and buy beedis and raw material.

Briefly then, as the workplace enters the homes, where each woman is literally on her own managing the work of her household as well as her beedi work, it generates a situation where women are isolated in their struggle for survival. The resentment, the jealousy and the unsympathetic attitudes that these atomised conditions generate get reflected in the shop-level relations which work against the women themselves. Our study demonstrates that in the beedi industry, where women are denied a common workplace and a knowledge of the totality of the production process, marketing and sales, they are at a definite disadvantage. Not aware of the real reasons for which certain terms and conditions are imposed on them, they try to compete with each other while they are perpetually depending on each other as well. The result is that their own labour process exercises divisiveness. The interactions between women evolve out of the requirements of an atomised home-based production process which undermines the possibility of women understanding their own exploitation. Thus, the wrath that should be directed against their exploiters gets dissipated and distributed over the mass of fellow workers. The range of survival mechanisms that women evolve within the labour process consists of choices in opting for the different shops within their social contexts and familial roles, and handling the varying pressures from the industry, their household circumstances and their social milieu. It also includes the interaction women evolve with other women workers and the contradictory results it produces.

Women, on account of their gender have an isolated position in the industry despite their larger numbers. This inability to be visible and assertive as workers is an extension of their status within the household and community. The community's perception of women's labour is no different from that of the shopowners. Women are already in a subordinate relationship with their men within the household, and men's opinion of women's labour reflect the beedi industry's. Men place the onus of any trouble that takes place in the shops on women. Their support is to the shops, since the shopowners provide their women with work and a lever to survive or improve their living without upsetting the cultural matrix – a matrix that hardly gives women any power or voice, or a sense of being valued – nor does it let institutions like the union come up and assert itself. In such conditions industries like the beedi industry, that are home-based reap the advantages that accrue from divisiveness among women workers, the social perceptions of women's work and their prevailing low status in the community.

Notes

1 Prasad, Eshwara K V and Anuradha Prasad, *Bidi Workers of Central India: A Study of Production Process and Working and Living Conditions*, National Labour Institute, New Delhi, 1985; Renana Jhabwala, Dhavan Reva, and Mahajan Krishan, *Women Who Roll Bidis: Two Studies of Gujarat*, Self-employed Women's Association, Ahmedabad, 1985, Mohandas, 'Beedi workers in Kerala Conditions of Life and Work', *Economic and Political Weekly*, Vol 15, No 36, 1980, pp 1517-23; SOCO Trust, *Report of the Commission on the Survey of Beedi Manufacturing in Tirunelveli District*, Tamil Nadu, Commission appointed by the Supreme Court, Madurai, 1990.

2 SOCO Trust, *Report of the Commission on the Survey of Beedi Manufacturing in Tirunelveli District*, Tamil Nadu, Commission appointed by the Supreme Court, Madurai, 1990.

3 'The households in the community were categorised into ACC1, ACC2, SUPP and SURV on the basis of the relationship of the beedi work of women in the household to the occupations of the other members of the household. The occupation in the village were grouped as those doing (1) agriculture and big businesses (2) small trades and petty businesses (3) general and agricultural labour.

In households with group (1) occupations, which were termed ACC1, the beedi work of women helped accumulate incomes. In households with group (2) occupations, which were termed ACC2, the beedi work of women also accumulated incomes, while in households with group (3) occupations, called SUPP, the beedi work of women supported the others' incomes. Apart from these three categories, a 4th category called SURV had only women beedi workers as the sole earning members in the household, on whose incomes the households survived. Those households which had no beedi workers were termed as NOBD.

4 The women workers mentioned (here and henceforth in the text) represent extensive case reports of women workers amongst various household categories in Kalloorani village.

Marginalisation of Women Workers

Leather Tanning Industry in Tamil Nadu

Millie Nihila

While liberalisation may have increased employment, it has worsened the quality of employment, especially for women. The article studies macro-level data to analyse employment of men and women. Data collection by official agencies uses faulty processes and much of women's work remains invisible. A macro-level field study of the leather tanning industry in Tamil Nadu shows that gender subordination is built into the system. Employment generation does not necessarily translate into a better deal for labour, especially women.

THE poor visibility of women's work (waged and non-waged) is well known and by now fairly well documented. Despite the problems and biases associated with the collection of data by the national level data collecting agencies, namely, the Census and the National Sample Survey, the work participation rate for women workers has been increasing both at the all-India and regional levels, in this case in Tamil Nadu. The modest aim of this article is twofold; one, using the data on employment collected by the macro-level data collecting agencies, we hope to analyse the nature and quality of the increasing employment opportunities that are supposed to result from economic and trade liberalisation in India, particularly since 1991. Two, we hope to (concretely) highlight how gender inequality is built into the very structure of the organisation of the economy, using the insights gained from a field-based study of leather tanning industry in Tamil Nadu. The central argument of the article is that, given the existing structural nature of employment in the economy, increases in employment generation does not necessarily translate into a better deal for labour, especially for women.

In Section I we give a brief overview of the employment of men and women using secondary sources. Section II is based on our field study; it not only unravels the faulty process of data recorded by official agencies, but goes beyond to show how this 'officially sanctioned' faulty process has become a weapon or tool in the hands of employers and trade unions to 'legitimately' subordinate women workers. Section III concludes.

I
Macro View of Employment

The study of women's work is and continues to be of crucial importance, for it helps to identify the processes and structures which generate gender inequalities, gender segregation and gender subordination. Making visible these processes would also help us to devise policies to combat to some extent the adverse conditions and situations in which women work.[1]

Since independence the work participation rate (WPR) for women workers has been increasing both at the all-India and Tamil Nadu level.[2] The WPR for females in Tamil Nadu is much higher than that for India (Table 1). Within Tamil Nadu as revealed in Table 2 the percentage of male workers in rural areas has been falling over time; at the same time the percentages of female workers has been increasing both in rural and urban areas.

Much of what women do is not entirely covered in the existing definitions and methods used to measure WPR [Swaminathan 1997]. The first level of marginalisation/making invisible women's work begins with the manner in which workers are classified into principal/subsidiary categories by the NSS and main/marginal workers by the Census. Table 3 reveals that, for female workers in rural areas, there is 6 per cent increase in work participation rate for women when marginal or subsidiary workers are taken into account along with main workers, in both Census and NSS reports. On the contrary when main and marginal workers are included for calculating WPR for males there is hardly 1 per cent increase. This reveals that more systematic and careful data collection and more inclusive definition of economic activity might result in giving a much higher female work participation rate.[3]

We are aware that the way 'worker' is defined varies between NSS and Census Reports.[4] However our concern in this article is not with definitional problems per se but more with the implications for gender of the continued usage of these definitions.

An almost unchanging feature of the structure of employment in the Indian economy is that more than 90 per cent of workers (male and female) are in the unorganised sector. While agriculture is almost unorganised, of the total employment in the non-agricultural sector, only 30 per cent of workers are in the organised sector. Even in the urban areas, over three-fourths of employment is in the informal sector [Dev 1997]. Available data [CMIE 1994] show that only 10 per cent of the

TABLE 2. PERCENTAGE OF WORKER TO POPULATION IN TAMIL NADU

Year		Persons	Males	Females
1961	Total	45.7	59.8	31.6
	Rural	49.8	62.6	37.1
	Urban	34.4	52.2	15.1
1971	Total	35.9	56.3	15.2
	Rural	38.9	59.0	17.5
	Urban	30.4	50.0	9.8
1981	Total	39.3	55.9	22.4
	Rural	43.2	58.3	28.0
	Urban	31.3	51.0	11.0
1991	Total	41.3	55.8	26.3
	Rural	45.1	51.8	32.9
	Urban	33.9	53.3	13.5

Note Workers include both main and marginal workers.

Sources: (i) For 1961, 1971, 1981, 'Development Indicators for Tamil Nadu since 1950-51', Government of Tamil Nadu (undated).
(ii) For 1991, 'Provisional Population Total, Per Cent of Workers and Their Distribution', Census, 1991.

TABLE 1: WORK PARTICIPATION RATE

		Principal Status		Subsidiary Status	
		1993-94	1987-88	1993-94	1987-88
Rural	Tamil Nadu	405	400	478	461
	India	234	245	328	323
Urban	Tamil Nadu	201	191	230	227
	India	121	118	155	152

Source: NSS Rounds 50th (1993-94) and 43rd (1987-88)

total working population is engaged in the organised sector. The rate of growth of employment in the organised sector has been 1.8, 1.5 and 1.2 respectively for the years 1990, 1991 and 1992 implying therefore that the increase in the rate of growth of employment officially claimed has taken place in the informal sector [Nihila and Swaminathan 1995].

The vexed questions of what constitutes and/or how to define organised/unorganised sectors, formal/informal sectors, have been with us for quite some time. For the purpose of this article, the terms have been used as follows: organised/unorganised refer to the status of the units of production. Thus organised would broadly be coterminous with 'legally' constituted units while unorganised would be units set up 'illegally' in the sense of not being officially recorded and/or covered by any of the officially sanctioned bodies of the state. We have used the terms formal/informal to refer to the status of workers. Formal workers would be those officially recognised and recorded as workers and eligible for such benefits as their official recognition confers upon them. Informal workers on the other hand, have no legal recognition as workers; not being officially recorded as workers they have no official claim to the protective measures available to formal workers.

The purpose behind using different terminologies for units of production and workers is to highlight the fact that a legally constituted unit (organised according to our definition) does not necessarily employ only formal workers. While unorganised units (illegal units in our parlance) by definition work with only informal workers, what needs emphasis is that a large chunk of informal workers are employed by organised (legal) units. Of total women workers, the proportion working as informal workers in the organised and unorganised sectors is quite high.

The National Sample Survey has classified workers according to the mode of payment as self-employed and wage-employed. Waged work is further categorised into (i) regular/wage salaried and (ii) casual wage employment. (In the absence of any further information it is not possible to decipher what proportion of workers under the category [regular/wage salaried] are informal workers. Workers in the other two categories, namely, 'self-employed' and 'casual wage employment' generally belong to the informal sector). Self-employed are those for whom household work forms the major source of income.

What Table 4 highlights is the fact that in Tamil Nadu a greater proportion of the workforce (around 95 per cent in rural areas and around 70-75 per cent in urban areas) is either self-employed or casual. The regular salaried/wage labourer form only a small proportion of total workforce particularly in rural areas and more so in the case of rural females. Overall fall in the self-employed category and increase in casual wage employment also means increase in the concentration of workers in informal sector. Increase in casual wage employment labour category could be due to the expansion of the modern sector, particularly, export-oriented units which depend mostly on casual labour [Kalpagam 1994].

As Kundu (1997) says "It can be argued that the current system of subcontracting of work in the urban economy is such that the female workers are no longer reported in the self-employed category. They are getting work – whatever may be the wage rate or working conditions – on a more regular basis. This reflects a significant change in the organisation of work and emergence of a new subcontracting system in the urban informal sector."

The sex distribution of workers reveals that the proportion of women workers in casual wage employment is more than that of males.

Table 5 brings out the sectoral concentration of workers by sex and area of residence. The primary sector comprises of agriculture and allied activities; secondary sector comprises manufacturing, mining and quarrying, electricity, construction, etc; and tertiary sector comprises trade, transport and services. Primary sector is largely unorganised, whereas, secondary and tertiary sectors are partially organised and comprise non-farm activities.

In rural areas a majority of men and women work in the primary sector (that is, agriculture and allied activities). The primary sector in India is almost totally informal by nature of organisation. Even here, while there is a distinct declining trend for males over time, for females the proportion has remained almost the same, around 77 per cent. In secondary sector there is a marginal increase in the proportion of female workers, whereas in the case of rural tertiary workers there is a marginal fall. Over time it can be seen from Table 5 that more than 70 per cent of women are in the primary sector, which is informal by nature of organisation.

Within the secondary sector, manufacturing contributes more than 70 per cent of the employment. The other set of information [Economic Survey, Economic Appraised of Tamil Nadu] available to us on employment shows the extent of con-

TABLE 3 MALE AND FEMALE WPR BY DATA SOURCE AND DEFINITION

Source	Rural		Urban	
	Male	Female	Male	Female
Main workers				
Census, 1991	57 16	32.88	53 33	13 45
NSS 1993-94	57 0	40.0	54.8	19.1
Main and Marginal Workers				
Census, 1991	58 71	39 23	53.79	14 55
NSS 1993-94	58 7	46 1	55 8	22.7

Note: Marginal workers are those who are engaged in productive economic activity for less than 183 days in a year.

Sources: (i) Tamil Nadu Economic Appraisal 1995-96
(ii) NSSO 50th Round Report No 409.

TABLE 4: PERCENTAGE DISTRIBUTION OF WORKERS BY USUAL STATUS INTO SELF-EMPLOYED AND WAGE EMPLOYED IN TAMIL NADU

	Males					Females				
	1972-73	1977-78	1983	1987-88	1993-94	1972-73	1977-78	1983	1987-88	1993 94
Rural										
Self employed	57.9	46.9	44 1	-	41.4	51 1	48 8	46.2	-	41.9
Regular wage/salaried	11.8	17 9	15.9	-	12.5	4 6	2.7	4.2	-	5.2
Casual wage employment	30.3	35.2	40.9	-	46 1	44.3	48.4	49.6	-	52.9
Total wage employment	42 1	53.1	55.9	-	58.6	48.9	51.2	53.8	-	58.1
Urban										
Self employed	39.7	37 6	33.7	33.7	34.5	51.2	53.7	40.5	45.4	39 7
Regular wage/salaried	50.0	43.7	40.3	47.4	40.3	23 4	20.2	22.2	30.0	30.1
Casual wage employment	10.3	18 6	25 1	18.9	25.2	25.4	26.1	37.2	24 6	30.2
Total wage employment	60 3	62.4	65.4	66 3	65.5	48.8	46.3	59.4	54.6	60 3

Source: NSSO 33, 38, 43 and 50th Rounds.

centration of workers in various manufacturing activities. Whatever data we have reveal an increase in the percentage of informal workers in the organised component of the manufacturing sector since liberalisation.

With Indian liberalisation package came the drive to increase export earnings through increases in both the quantum of exports and value addition of the goods exported. Studies [Nihila 1995] show that 50 to 60 per cent of total export earnings are made up of commodities manufactured generally by small enterprises using informal labour. The items that dominate the Indian export basket include leather and leather goods, gems and jewellery, handicrafts and readymade garments.

A distinct feature of these export items is that they employ relatively large number of women workers. Our surmise therefore is that a part of the increase in employment officially claimed [quoted in Swaminathan 1995] would have taken place in the informal labour-intensive export industries, a direct consequence of which could be an increase in the employment of women.

Leather industry is one of the major export earning industries of India. It is the fourth largest item contributing 7 to 8 per cent of total exports (till 1995); it ranks first from the angle of foreign exchange earnings. In Tamil Nadu leather industry plays a pivotal role. Tamil Nadu exports 55 per cent of total leather exported from India while 70 per cent of hides and skins produced in the country are tanned and finished in Tamil Nadu [Nihila 1993]. This is one industry where women are not supposed to be technically employed, but official claims notwithstanding, large numbers of women are visibly employed, albeit as informal workers both in the organised and unorganised segments of this industry.

II
Micro Study of Employment

The macro picture of increasing but low status employment and of women is supplemented (in this section) with insights from a micro level study[5] of an export – oriented industry, namely, leather tanning industry of Tamil Nadu. Neither the increase in the quantum of export earnings from leather products nor the increasingly sophisticated techniques used in the production process have alleviated the appalling nature and conditions of employment in the tanning part of the leather industry. Further, through an assessment of the nature and quality of employment in the tanning industry, we hope to show how gender subordination, segregation and inequality is built into and maintained in this otherwise booming industry.

The quality of leather products is critically dependent on the quality of tanning, which part of the industry is the most polluting, the most hazardous, but the most labour-intensive component of the leather industry. Leather industry as such can be divided into three segments: leather tanning (raw to semi-finished stage); leather finishing (semi-finished to finished stage) and leather products industries. Each of these components has six to eight processes. Tanning is basically converting animal hides or skins into leather. The basic raw materials used in tanning are skins (outer covering of sheep and goat) and hides (outer covering of cow, buffaloes and calf). The methods of tanning generally followed are vegetable tanning (this is called as EI or East India tanning) and chrome tanning.

The leather tanning industry has been designated as 'hazardous industry' under the Factories Act, 1948. Among the different operations, liming and tanning of raw hides and skins and processes incidental thereto have been notified as dangerous operations by Tamil Nadu Factories Rules, 1950. Schedule 9 of Chapter IX. Section 84-A of the Act (Tamil Nadu Factories Rules) deals with matters relating to exemption of women workers from certain operations. Under this provision, women workers are exempted from working in country (EI) and chrome tanning excluding finishing units.[6] This is a high-risk industry as far as workers are concerned.

Our survey and interviews with experts in the leather industry revealed that nearly 225 chemicals are used in the various processes from tanning to finished leather. Of these 225, quite a few chemicals are toxic. Studies [Rutherford 1948; ILO 1974; NIOSH 1976; Proctor and Hughes 1978; Decoufle 1979; Roberts 1983; GoI 1984; Subramaniam 1988; Rajan 1990: Nandkumar and Backiyavathi 1990; Sunil 1991 PRIA; IARC and WHO 1981] have disclosed that prolonged contact with

TABLE 6: SHARES IN VALUE OF EXPORTS

(Per cent)

Year	Manufacturing to Total Exports	Leather and Leather Products, Gems and Jewellery, Handicrafts and Readymade Garments: Total Manufacturing	Leather and Leather Products, Gems and Jewellery, Handicrafts and Readymade Garments: Total Exports
1990-91	72.91	53.37	75.94
1991-92	74.23	53.70	72.34
1992-93	76.00	56.78	74.65
1993-94	75.56	56.88	75.29
1994-95	78.1	39.6	50.6
1995-96	75.4	37.01	49.2

Source. Compiled from Economic Survey, 1994-95 and 1996-97

TABLE 5: SECTORAL DISTRIBUTION OF USUAL STATUS WORKERS - TAMIL NADU

(Per cent)

Sector	Year	Rural		Urban	
		Male	Female	Male	Female
Primary	1951	77.7	77.8	15.3	15.9
	1961	70.1	75.6	9.8	19.1
	1971	76.3	86.9	14.1	29.6
	1977-78	73.9	83.6	12.6	29.8
	1983	66.3	79.9	11.4	30.1
	1987-88	64.7	74.9	7.2	15.7
	1993-94	63.7	77.5	8.0	19.1
Secondary	1951	10.3	9.6	26.5	25.6
	1961	3.4	10.5	37.3	42.1
	1971	9.6	7.2	33.4	31.5
	1977-78	11.0	9.2	34.2	41.2
	1983	14.1	10.7	33.7	34.2
	1987-88	18.0	20.2	39.5	46.4
	1993-94	17.3	14.7	37.7	40.8
Tertiary	1951	11.8	12.0	50.2	58.2
	1961	15.7	13.6	52.9	38.7
	1971	11.3	5.6	52.0	38.9
	1977-78	15.11	7.2	53.2	29.0
	1983	19.6	9.4	54.9	35.7
	1987-88	17.3	9.4	53.3	37.9
	1993-94	18.9	7.8	54.1	40.0

Sources 1951 – Compiled from Table · E General Population Tables and Summary figures of Recognised States, Census of India, 1951.
1961 – Tamil Nadu Economic Appraisal 1971-72, Table 1.7
1971 – Census Report; and NSSO 33rd Round (1977-78); 38rd Round (1983); 43rd Round (1987-88) and 50th Round (1993-94).

chemicals used in leather industry leads to dermatitis, conjunctivitis, nervous disorder, itching of skin, throat, mucous membrane, chest pain, ulcer, breathing problem, asthma, bronchitis, fissure in fingers, toes, mouth and nose; frequent fever, headache, stomach upset, etc. Some of these chemicals if inhaled can become fatal. National Institute of Occupational Safety and Health, US (1976), has noted that the accident and illness rate is five times higher in tanneries than the average for all other industries

It has also been estimated that on an average each year, one in five tannery workers is a victim of work-related injury. Hazards have increased with the increase in the intensity of chemicals used, and despite the improvements in the technologies used in the production processes. The brunt of these hazards is borne by workers, more often by women workers. Specific gynaecological problems faced by women workers are: menstrual disorders, premature deaths, still births, prolapse of uterus, etc. This is one industry where increasing (exports) production is accompanied by increasing risk to workers.

A brief idea of the manner in which the leather industry is structured - organisationally and in terms of the labour that it employs – is necessary to bring out why the subordinate status of the tannery workers (particularly women) is systemic and not just a problem that can be resolved by implementation of existing factory and/or social welfare legislation We begin with the manner in which units are set up in the industry.

The setting up of any unit or process of production in leather tanning industry requires formal approval, for tanning has been designated as a particularly hazardous industry In practice, however, there are any number of units in Dindigul that have commenced production without formal sanction; apart from this, existing (legal) units have added on additional processes without formal approval. These illegal units and/or illegally expanded parts/processes of legal units employ large numbers of labour particularly women. Strictly, as per the Factories Act, 1948, women and children are prohibited from being employed in the leather tanning industry. But the industry has not only managed to circumvent the provisions of Factories Act, 1948, but also has, over the years developed and expanded without formal sanction and without expending much on its labour. Much of the expansion of the industry being illegal, there is no way in which the workers recruited in this system can claim legal protection. The bulk of these illegal workers are women and of the dalit caste. From our visit to various tanning pockets of Tamil Nadu, we have estimated that almost 30 per cent of the total tannery workforce is female. And all of these women are informal workers. Despite the stringent requirement of a formal licence, the industry has managed to expand illegally both in terms of production and labour employed.

Our stress on legality is because of the severe adverse implications it has for labour in these units. The non-legal status of most of the units coupled with the non-legal status of the workers employed in them has led to a situation where there is no authentic record of the existence of these workers. This in turn means that it becomes extremely difficult to claim any benefit under any of the welfare schemes – local, state or central – that may have been instituted to help such workers.

An added dimension to this problem of non-recognition as workers is the manner in which women labour in particular are recruited. Almost all women workers are brought into the industry through contractors. Technically, therefore, the employer is not answerable to these women workers. Worse, it is very often the contractors who are on the payrolls of the employers rather than the workers actually working for the unit. An important implication of this mode of recruitment into the industry is that even in the case of legal units, the women workers could be rendered nonexistent if they are recruited through contractors Either way, whether in legally constituted or in illegally set up units, large number of women, who have been working in this industry for years, have been doing so without the most basic of a worker's right, namely, being recorded as a legitimate worker. Our field survey revealed that all women in Dindigul are recruited through contractors.

Further, when women workers are recruited through contractors, the status of their employment (that is, temporary or casual), conditions of employment, wages, etc, are negotiated by the contractors on behalf of the women workers. A fallout of this mode of employment through contr :tors is that:

(1) The employer is not under any obligation to contribute to measures such as ESIS, Provident Fund, etc. Nor does the contractor negotiate for any of these benefits on the womens' behalf.
(2) The women cannot demand any kind of personal protection. They use discarded car tyres as boots; plastic sheets are used to cover waist; gloves discarded by male tannery workers are passed on to women after being overused, which is the same as to not wearing a glove. There is no separate toilet or restroom for women workers in any of the tanneries visited by us.
(3) Their working hours are neither regular nor do employers follow the eight hours work-day schedule.
(4) Women workers are paid only consolidated amount as wages. When they do extra work or overtime, the wage for the same are calculated only on the basis of regular work, which means no additional wage is paid for them. But, overtime work is compulsory; and the women workers are not always informed in advance about overtime work.
(5) As far as the physical work area is concerned, women workers are sometimes made to work under the direct heat of the sun.

The recruitment of women workers through contractors and the consequent invisibility presence of these workers in the units in which they are employed, frees the owners of units from a whole host of obligations while gaining several benefits.

Since most women are employed in 'illegal' operations, they and their activities are not officially recorded. But unless these initial tanning operations are performed, the later processes of tanning cannot even begin. If at all women get recorded it is only as helpers or coolies. Not only do these terms not capture the entire range of activities performed by women workers, but what is worse, the designation as 'helper' or 'coolie' enables the officials, employers and trade unions to label these tasks as unskilled and the workers as casual labourers. All these lead not only to an official undercount of the actual number of women employed in tanneries; but worse official recognition of the hazardous conditions in which the workers especially women operate is also to that extent denied. Based on our field survey we give below an idea of the several different tasks (physically strenuous and mechanically debilitating) performed by women workers otherwise termed as helpers or coolies.

(A) *Skin tanning units*: In the skin tanning units, women are employed in the initial process of opening the (raw) curried skin which is followed by trimming and sorting of the same. These operations are mostly done by chuckliyar women – the caste traditionally associated with leather work-

ers. Of the workers employed in this process 60 per cent are women.

In the pre-tanning stage (beam house) women are engaged in operations like cleaning the lime pit (that is, cleaning of sludge, and pickling of waste, flesh, etc. with lime sludge), cleaning the beam house, and other processes related to hair. Apart from these above mentioned operations women workers also do other miscellaneous jobs like carrying pelt[7] from one place of process to another, pailing it up, etc. Of the women interviewed 58 per cent were engaged in this process.

In the tanning stage, especially in North Arcot and Tiruchirapalli tanning pockets, women help machine operators by holding the pelt while it is being fed into machine. Holding, carrying to and fro these huge heavy pelts is strenuous and back breaking. Around 30 per cent of women workers we interviewed are in the tanning processes.

Both in tanning and post-tanning stages, women workers are involved in drying process. These operations pose severe hazards to women workers especially during winter and rainy seasons. During these seasons, skins are dried in dark chambers with heat being generated through charcoal fires. Women workers have to walk across burning charcoal to hook and unhook skins. It is not only suffocating, but the incidence of women workers getting their feet and clothes burnt is quite high. The other operation, dyeing, is done by women workers with the help of hand sprays. Most of the chemicals used in dyeing are toxic but which the workers have necessarily to inhale and endure. Though only 12 per cent of workers were involved in this process, of the total workers employed in this process women constitute 65-70 per cent and rest are adolescent males.

In the finishing stage, women workers are involved in drying and dyeing of skins (both of these processes are extremely hazardous) and also in sorting, measuring and packing. Women from all communities work here. Of the women we interviewed 5 per cent were in this process.

(B) *Hide tanning units*: In the hide tanning processes women are recruited for cleaning bark-pits, carrying water: breaking nuts and crushing barks, drying the used nuts and barks; to fold hides and are also made to assist semi-skilled (knifemen) workers. While folding they have to wring the hides to make the hides wrinkle-free. In North Arcot tanning pockets, women are recruited for wringing and folding huge hides. This is done by women in a group of four. This is a tedious and laborious job. The large size and heaviness of the hides makes it strenuous.

CHART 1: EMPLOYMENT BREAK-UP OF TANNERY PERSONNEL

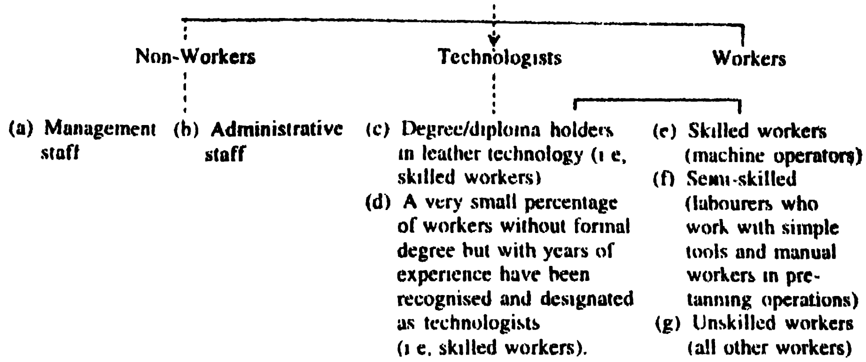
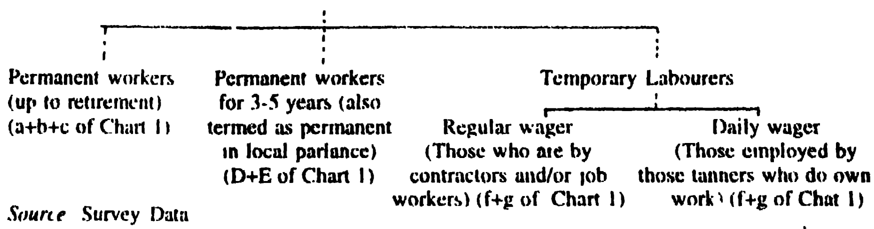


CHART 1(A): EMPLOYMENT STATUS OF TANNERY PERSONNEL



Source Survey Data

In addition to the tasks in the above processes women workers are also employed as sweepers, scavengers and cleaners. Each of these tasks involves an enormous amount of work, much than terms like cleaning, helping, assisting can convey. Practically all operations in which women are engaged are not only time consuming and back-breaking but also ones which cannot be mechanised.

The tenure and status of employment of workers is another tool in the hands of employers, contractors and (male) trade unionists to relegate women workers to a subordinate position. We give an idea of the overall employment structure in the tanning industry in order to make our argument of the subordinate status of women workers clear.

Staff in any tannery can be divided into three categories, namely, non-workers, technologists and workers (Flow Chart 1). Not all persons employed in any tannery are made permanent. Permanent till retirement in tanneries applies only to non-workers (that is, management and administrative staff). Workers are made permanent, but not till retirement. This privilege of (temporary) permanency, is available only for male workers. Here too they are made permanent only when they work for 240 days without break.[8] Once made permanent, they are entitled to all allowances and benefits, like ESI, periodical medical check-up, etc. But within five years they could be thrown out of the job. The firm in which these workers are employed may close the unit and retrench them, reasons usually given for closure are change in management, declaring false bankruptcy, labour problem, non-availability of raw materials and/or inputs, etc. The third category of temporary labourers are those who always remain in the temporary category. There are two categories of temporary labourers, regular and daily. The difference between regular and daily lies in the fact that regular (temporary) workers are assured of jobs and salary while daily (temporary) workers have no such guarantee. (Chart 1 and 1(a) give an idea of the staffing of tanneries with the respective employment status). The temporary (regular and daily) labourers are not entitled to any allowance and/or social benefits. Of the women interviewed by us, none was in the permanent category – either lifetime or the five-year permanent category. Nearly 90 per cent of the women workers belonged to the temporary – daily category.

Only those workers designated as skilled can become permanent (three-five years assured employment). The industry, as it is presently organised, precludes women workers from being designated as 'skilled' or even 'semi-skilled'. This bring us to the manner in which 'skill' as a term is used and operationalised in Dindigul.

Skill as defined by tanners is based on the processes in which workers are involved. Mostly, those who operate machines (only males) are called skilled workers. Semi-skilled workers are those

CHART 2: WORKER CATEGORIES IN DINDIGUL

(Per cent)

Technologists	Workers
28	72
(c) 20	(e) 32
(d) 8	(f) 5
	(g) 35

CHART 2(a): EMPLOYMENT STATUS OF WORKER CATEGORIES IN DINDIGUL

(Per cent)

Permanent workers (up to retirement)	Permanent workers for 3-5 years	Temporary Labourers: Regular wage	Temporary Labourers: Daily wage
(c) 20	(d) and (e) 40	(f) 10	(g) 30

Note: Categories (c) (d) (e) (f) (g) are the same as used in Chart 1 and 1(a).
Source: Survey Data.

who use simple hand tools for work, e g, knifeman who does unhairing and/or defleshing. All other categories of workers are unskilled workers.

Based on the informations gathered during our field work, and using Charts 1 and 1(a) the following Charts 2 and 2(a) have been worked out. These charts depict the categories of tannery workers (in percentages) by their respective skill and employment status.

Machine work is given exclusively to male workers and never to women workers. The reasons given for not employing women on machines include: (a) Women are considered to be less capable of using machine despite the fact that it is merely feeding skin to the machine.[9] (b) The Factories Act, 1948, does not allow women to work in or near any moving machine. The Factories Act, 1948, however has not come in the way of recruiting larger numbers of women in other polluting tasks associated with tanning compared with the relatively less arduous tasks associated with machine operations. The women themselves realise that the employers in collusion with the male trade unions are keeping them out of the mechanised and high paying jobs by invoking the Factories Act, 1948. The contract nature of women's recruitment does not give them any leverage to bargain for a better status and therefore better conditions of employment.

The process of recruitment (through contractors), the nature of employment (temporary or casual), designation of women workers as helpers, coolie, assistants, etc, combine to disempower women even when in wage work. After years of working in different tasks associated with the tanning industry, women find themselves moving only horizontally. Men, on the other hand, whatever be their mode of recruitment, are able to move up vertically and in the process change their status from unskilled to semi-skilled to skilled over time. It is nobody's contention that men workers in the leather industry have it easy. The point being stressed however is the stark discrimination by sex actively practised in Dindigul.

III
Conclusion

We began with an analysis of the picture presented by macro-level data on the nature of women's work. That data revealed an increasing trend over time in terms of numbers of women employed particularly in the secondary sector. However, it also simultaneously revealed the fact that much of the increase has been in the categories of 'self-employed' and 'casual temporary'. There has also been an official hype about increasing employment having been generated in the post-reform period (that is, after 1991). Whatever data we have been able to collect show that the quality of the employment generated has deteriorated. Our micro level study based on an analysis of data collected in the leather tanning industry has revealed how gender subordination is built into the system such that merely tinkering with the Factories Act or labour related social welfare legislation will in no way change the macro picture of abysmal quality employment. Fundamental changes at the micro level are needed.

Notes

[This is a revised version of the article presented at the workshop on 'Women's Occupational and Reproductive Health: Research Evidences and Methodologies', held at the Tata Institute of Social Sciences, Mumbai, February 23-25, 1998.]

1 Kalpagam (1994) in her study has explored and vividly brought out how the market persistently works against women.

2 Though initially we were aiming to bring out the trend of work participation rate of women workers since independence, we could not succeed in our endeavour due to non-availability of information on WPR of women. However, we have put together information from *Census of India Report* of 1961, 1971, 1981 and 1991 and various rounds of *National Sample Survey, Quinquennial Survey on Employment and Unemployment in India* – 27th round (1972-73); 32nd round (1977-78); 38th round (1983); 43rd round (1987-88); and 50th round (1993-94).

3 The workforce participation rate refers to the number of persons/person days employed per thousand persons/person days. NSS classifies workers based on status: initially it classifies a person either as 'worker or employed' or 'seeking/available for work or unemployed'. Later the time spent criterion is used to categorise a person as 'principal status worker' or 'subsidiary status worker'. If a person is engaged in economic activities for relatively longer period of time in the preceding 365 days from the date of survey, s/he is considered a 'principal status worker'. A person categorised as a non-worker who pursued some economic activity in a subsidiary capacity is called a 'subsidiary status worker'. These two groups viz, principal and subsidiary status workers together constitute the category of 'all workers'.

Census classifies workers into main and marginal workers. Those who had work for major part of the year are termed main workers, by major part of the year is meant six months (183 days) or more. Those who had not worked for the major part of the year, that is, their work is less than six months (183 days) in the year are termed marginal workers.

4 The recording of women as workers in the Census Reports as well as the NSS suffers from serious enumeration and reporting drawbacks. According to Mitra (Mitra, Ashok (1981), quoted in *Shramshakti*, p 27), '. the under reporting of female work participation rate in census varies from 30 to 40 per cent. He estimates that the participation of females in the informal sector is as high as 49 per cent as against 15 to 17 per cent in case of males'.

Jain and Chand (Jain, Devaki and Malini Chand (1982), quoted in *Shramshakti*, p 27) find that '.. the measurement of female labour force participation and analysis suffer from gross underenumeration – inadequate attention to unpaid family labour, own production and household work and relationship between them.... These are poor conceptualisations of female work style, mistaken perception of female economic roles by respondents and interviewers'. Whatever has been reported by published information on work participation would help one to know the trend and intensity of work participation of women, which would serve as a base for further discussion.

5 Our paper is based on the survey conducted in leather tanning pockets of Tamil Nadu, namely, Dindigul, Trichirapalli, Vanniyambadi, Ambur and Pernampet. We did a census survey of all leather tanning units in Dindigul. A second round of survey was conducted for leather tannery workers in Dindigul, Trichirapalli and North Arcot (Vanniyambadi Ambur and Pernampet). Our survey was conducted between 1991 and 1993.

Details of workers interviewed:

	Males	Females	Total
Dindigul	41	65	106
Trichirapalli	18	41	59
North	0	33	33
Total	139	59	198

6 Dangerous occupations according to Sec 87 is where the (state) government is of the opinion that any manufacturing process or operation carried on in a factory, exposes any person employed in it to a risk of bodily injury, poisoning or disease. The state may make rules applicable to any factory or class or description of factories in which manufacturing process or operation is carried on. Sec 87 (b) prohibits or restricts the employment of women, adolescents or children in the manufacturing process or operations. According to the Annual Report of the Factories Act of Tamil Nadu, 1979, it was found that 92 per cent of workers are employed in dangerous operations in the leather industry.

7 Once the hair and flesh are removed from skin/hide, the remaining substance is called pelt.

8 Though it is a necessary condition to work for 240 days without break to become permanent, continuous working becomes impossible in case of many workers because (i) job is not available continuously and (ii) available jobs are so strenuous that workers fall sick very often leading to a break in service.

9 All machines used in the process of tanning are built on a simple model, like two rollers which needs to be operated with a paddle. What needs to be emphasised here is that there is nothing so complicated about these machines which will be difficult for women to operate.

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Violence against Women
Wife Battering in Chennai

Subadra

Domestic violence, more often than not, is rooted in patriarchal notions of ownership over women's bodies sexuality, labour reproductive rights, mobility and levels of autonomy. The phenomenon of wife battering is shrouded in myths and stereotypes that need to be debunked. A study in Chennai located in the context of the rising curve of crimes against women in the city.

DEVELOPMENT is about protection of human rights of the concerned populations. It pre-supposes active participation of the populace in the decision-making processes while social justice remains one of the most important and cherished goals of development. However, contradictions do remain as a result of various processes not only among nations at a global level, but also significantly within sections of population within a country. People continue to be marginalised on the basis of class, religion, ethnicity, colour, sex and in India specially, on the basis of caste. Discrimination and exploitation on the basis of gender constitutes a serious issue which effectively means that half the human race is unable to realise its potential and condemned to sub-optimal standards of existence. This problem has received worldwide attention and several efforts have been made to bridge the seemingly ever-widening gap. Yet even after years of efforts to integrate women into the mainstream development processes, the effectivity of the same remains to be questioned owing to a multitude of factors which aid the continued marginalisation of women. Women's access to education, health, employment and political spaces still remain distant goals in many nations of the world. One of the most serious impediments to women's development is the phenomenon of continuing and increasing violence against them. Needless to say, this constitutes a serious violation of women's human rights. Violence against women is one of the most significant, yet little understood and acknowledged factor instrumental in the phenomenon of marginalisation of women in the development processes. Gender violence manifests itself in various forms – female foeticide and infanticide, sexual abuse, incest, molestation, sexual harassment at work and on the streets, marital rape, domestic violence in the form of wife assault and woman battering. In some places, there exist culture-specific forms of violence against women like female genital mutilation in some African countries and harassment/murder/beating for dowry in India. Of all the forms of violence that women face, domestic violence remains the least reported and largely suppressed.

For women, violence is a phenomenon which starts at conception and carries on through their entire life span. In India, pre-birth selection and consequent infanticide is a common occurrence and the preference for a male offspring widespread. Discrimination continues by way of access to adequate food, prompt medical facilities, burden of housework, care of siblings and so on leading to lack of education and consequent lack of awareness and empowerment and imparting of skills. Adolescence brings with it the complete withdrawal of the little freedom of mobility, fear of and occurrence of sexual assaults; both within and outside of the family. Vulnerability is further compounded by early marriages and early child bearing and the disastrous consequences of the same on the health of women. In India specifically, child marriages further accentuate the girl's vulnerability. The reproductive age is, for a lot of women, punctuated with physical, mental and emotional abuse by their husbands. Millions of Indian women face severe harassment due to unfulfilled dowry demands and many are victims of homicide and are even driven to suicide. All these foster a deep and inescapable sense of dependency in women who are left with no alternative but to continue to live with/depend on abusive partners for want of any other choice. Additionally, women constantly need to negotiate their space and contend with abuse at the workplace too. An important fact is that a woman may experience violence either once in one of her life-cycle phases or be continually exposed to multiple instances of violence at various points in time. It has, however been established beyond doubt that wife-battering is probably one of the most endemic forms of violence against women throughout the world.

Domestic violence arises from patriarchal notions of ownership over women's bodies, sexuality, labour, reproductive rights, mobility, and level of autonomy. Deep rooted ideas about male superiority enable men to freely exercise unlimited power over women's lives and effectively legitimises it too. Violence is thus a tool that men use constantly to control women as a result of highly internalised patriarchal conditioning which accords men the right to beat their wives and thus ostensibly perform the duty of chastising them. The unequal and hierarchical gender relations manifest itself clearly in the familial set-up and is accentuated by clear demarcation of sex roles and sexual division of labour. Violence within the home constitutes, more often than not, a 'private' affair because of the high value attached to family as an indisputably sacrosanct social institution. In fact, this belief disables rightful cognisance of the fact that more often than not, the family, in reality, is the site of and the root of unequal gender relations and oppression of women. This in fact, puts violence (which is systematically meted out to women within the family) above public scrutiny, thereby creating a public/private dichotomy with respect to violence against women. Not surprisingly, thus, marital violence, especially woman battering goes largely unnoticed or more importantly, hushed. It has also been quite apparent for a long time now that violence against women within the family does not constitute an occasional, rare incident, but is a regular systemic and structural manifestation of social control. One of the main causes for the non-recognition of wife battering as a serious social crime has been the fact that the phenomenon has been shrouded in myths and stereotypes which need to be debunked to enable an understanding of family violence. These range from viewing battered women as mentally disturbed or sick individuals, batterers as products of an abusive environment; and violence as a result of abuse of drug and alcohol.

Conceptual Framework

In the past few decades, with increasing evidence regarding the phenomenon, marital violence has drawn the attention

of several concerned feminists, human rights groups, social scientists and social work practitioners. Also, many scientists have since attempted to study the phenomenon and have proposed several theories to explain the same. An overview of the various theories that have been put forward follows.

According to Anjali Maydeo of Nari Samanta Manch, a Pune-based women's group, theories related to domestic violence can be grouped into three categories; psycho-analytical theories, social learning theories and the socio-political critique. Psycho-analytical theories are those that focus on the emotions/feelings instilled during child rearing which make women and men behave in a particular fashion. The social learning theories view violence as a direct consequence of socialisation processes and the family environments from which the women and men learn to be 'helpless' and 'aggressive' respectively. The socio-political critique highlight the role of patriarchy in the manifestations of violence which forces women into subordinate positions.

Two of the most often discussed theories on battered women are Lenore Walker's 'The Cycle Theory of Violence' and 'Psychosocial Theory of Learned Helplessness'.

The cycle theory of violence comprises three distinct phases in the cycle of violence – the tension building stage, the acute battering incident and kindness and contrite loving behaviour. In the first stage, when minor battering incidents occur, the woman adapts, rationalises and externalises the problem. Tension mounts in the second phase leading to the acute battering incident leading to severe repercussions on the woman – physically, emotionally and psychologically. Phase three is welcomed by both the partners which is marked by uncontrolled love, affection and promises by the husband never to repeat the incidents again. This cycle keeps repeating itself in the lives of almost all battered women. The psycho-social theory of learned helplessness focuses on the factors which reinforce battered women's victimisation. According to this theory, battered women operate from a premise of 'helplessness' which further serves to only aid passivity and a fatal acceptance of the exploitative situation.

As opposed to the cycle theory, E W Gondolf and E R Fisher proposed the survivor theory in 1988 which views women not merely as passive victims but proactive help-seekers and survivors. The assumptions of the survivor theory are in sharp contrast to the above theory of learned helplessness. The survivor theory credits women with the capacity to innovate newer strategies of coping and acknowledges the efforts of the survivors in seeking help from formal and informal sources. In addition, the survivor theory stresses the need for accessible and effective community resources for the woman to escape from the batterer. As mentioned earlier, the survivor theory takes cognisance of the multiple help-seeking behaviour of women in the face of increased violence. Further, it also lauds the 'female survivor instinct' which focuses on nurturing rather than destruction, the willingness to adapt and the efforts directed at furthering of self-growth.

Despite violence being the primary issue which brought the new women's movement in India in the early seventies, there have only been sporadic efforts at a theoretical understanding of the issues which confront women in India. Field level action and protests have, more often than not, occurred in the absence of a theoretical framework. However, significant theoretical initiatives have been put forward by Sharad Patil, Sharad Joshi and Vandana Shiva, pioneer intellectuals and activists associated with women's movements in the spheres of the anti-caste, the peasant and the ecology movements in India respectively. Gender relations, sexual domination, matriliny, etc, form an essential part of Patil's analyses of caste/class oppression. Traditional Marxist framework forms the basis of the analyses where patriarchal attitudes towards women's sexual freedom, power of sexuality seek to bind women culturally. In Joshi's view, patriarchal oppression is seen as arising out of accumulation of material and economic surplus and the concentration of the same in a few hands. When the imbalance is sought to be corrected, the processes result in the suppression, rape and slavery of women. western science and technology and the imperialist west are seen as the primary causes of women's exploitation in Shiva's view. This theory asserts women's positive relationship with nature (evident in the Chipko movement) similar to the Gandhian philosphy. Also, this approach views women not as mere victims but as powerful agents with the power to change the course of their lives.

Women's groups all over the world have continuously campaigned to draw public attention to the issue of gender violence. Unfortunately, an accurate estimate of the dimensions of the problem has been difficult to obtain because of the gross under-reporting of the phenomenon.

According to recent victimisation surveys in the US, only 2 per cent of intrafamilial child sexual abuse, 6 per cent of extrafamilial sexual abuse, and 5 to 8 per cent of adult sexual assault cases are reported to the police. By comparison, 61.5 per cent of robberies and 82.5 per cent of burglaries are reported [Koss 1990]. According to Lise Lachance in 1994, the following estimates emerged about the extent of violence against women in Canada:

– One-half of all Canadian women have experienced at least one incident of physical or sexual violence since the age of sixteen.
– One-in-four Canadian women can expect to be sexually assaulted in her life, half of them before the age of seventeen.
– From 1969 to 1987, the number of declared rapes increased by 125 per cent. Half of them were committed in the victim's houses.
– A study on women with disabilities found that almost half had been sexually abused as children, and one-in-four had been sexually assaulted as an adult.
– 80 per cent of women in federal prisons had previously suffered physical or sexual abuse.
– Six-in-ten Canadian women who walk alone in their own area after dark feel "very" or "somewhat" worried doing so.

TABLE 1: CRIMES AGAINST WOMEN – NAIONAL TRENDS (ACTUAL FIGURES)

Crime Head	1990	1991	1992	1993	1994
Rape	9518	9793	11112	11242	12351
Kidnapping and abduction	11699	12300	12077	11837	12998
Dowry deaths	4836	5157	4962	5817	4935
Torture	13450	15949	19750	22064	25946
Molestation	20194	20611	20385	20985	24117
Sexual harassment	8620	10283	10751	12009	10496
Importation of girls	–	–	–	–	167
Sati Prevention Act	–	–	–	–	2
Immoral Traffic (Prevention) Act	–	–	–	–	7457
Indecent Representation of Women	–	–	–	–	389
Total	68317	74093	79037	83954	98948

Source: National Crime Records Bureau, Crime in India–1994, Government of India

– The World Bank estimates that rape and domestic violence account for 5 per cent of life lost to women of reproductive age in demographically developing countries. In developing countries such as China, where maternal mortality and poverty-related diseases are relatively under control, the healthy years of life lost due to rape and domestic violence again account for a larger share (16 per cent) of the total burden. In established market economies gender-based victimisation accounts for nearly one in five healthy years of life lost to women of age 15 to 44 [Heise 1994].

In India, there has been very little research done on the subject of domestic violence despite the fact that the women's movement in India came to the fore campaigning against the issue. This is largely because, like in the rest of the world, in India too there is a tendency to overlook the incidence of the phenomenon with only the few heinous cases attracting media and public attention. According to Mahajan (1990), we have limited knowledge on family violence. Not much research has been done, he says, and for a variety of reasons. Firstly, the semi-sacred nature of the family in our society makes research into family violence a taboo. Secondly, research into the family has been largely devoted to the study of the joint family which diverted attention from family conflicts in general and physical violence in particular. Thirdly, paucity of research on family violence can be attributed to the apathetic attitude of society which has relegated intra-family violence to a form of individual pathology and has led members of the family to believe that physical conflicts in the family do not constitute violence. Sriram and Bakshi (1988) in their study of 617 battered women found that in the percentage distribution of causes of violence against married women, dowry demands, extra-marital affairs and bigamy, alcohol and gambling were the highest. Their analysis revealed that for more than 50 per cent of the cases, regular beating was a fact of life. Besides manual beating, 10 per cent of the women were assaulted with instruments. Ranjana Kumari's study (1989) of dowry victims shows that one in every four was murdered or driven to commit suicide and more than half (61.3 per cent) were thrown out of their husband's house after a long drawn out period of harassment and torture. Gautam and Trivedi (1987) found that the victims were mostly young (18-30 years), less educated than their spouses, dependent on husbands or in-laws for their living and mostly died from burn injuries [Action Aid 1994].

Over the past few years, the phenomenon of women burning and rapes has registered a sharp increase throughout India. In Delhi on an average in 1983, two women died of burns everyday. In Bombay, a survey from two police stations indicated that in a period of eight months in 1984, one woman was burnt to death every five days. In Bangalore, suicides and 'dowry deaths' nearly doubled in 1984 as compared to the previous years. According to police reports, on an average two women committed suicides every day in 1984. In Madhya Pradesh, records from the biggest hospital showed that one woman died of burn injuries every five days. According to various women's organisations an equal number of burning/suicide cases go unreported. Mostly this is on account of the refusal of the police to register the cases or when they do register, they tend to minimise the offence.

Crimes against Women in Chennai

As a background to a field study, an attempt was made to focus on the phenomenon of crimes/violence against women in Chennai city in the period 1986-1996. Also juxtaposed with the said data is the national level data to highlight trends and focus on police action with respect to the same.

According to the National Crime Records Bureau data of 1994, the following patterns were observed at the national level (Table 1).

As is evident from the table, the overall trends in crimes against women from 1990 to 1994 registered a gradual, steady increase of 45 per cent. A closer look at the data revealed that the highest increase was in the area of 'torture' of women; i e, harassment for dowry under Sec 498-A of the IPC. Also, at a national level, the incidence of crimes showed a consistent pattern of increase from 1990 to 1994. So also, the proportion of crime against women went up to 5.6 per cent in 1994 from 4.3 per cent in 1990.

The National Crime Records Bureau has classified all the states and union territories on the basis of high crime prone and less crime prone. Tamil Nadu ranks eighth among the list of 10 high crime prone states. With specific reference to Chennai, the trends in the crime against women from 1990 to 1996 November as per the Chennai Crime Records Bureau are as shown in Table 2.

The incidence of crime against women has not followed any particular pattern as is evident from Table 2. While remaining more or less constant from 1990 to 1992, the incidence of crime shot up by nearly 55 per cent in 1993. The incidence came down significantly in the two years that followed, but shot up by 121.5 per cent in 1996 as compared to the figures in 1995. A possible explanation to this could be that the reporting went up in 1993 following the establishment of three all-women police stations in Chennai; first at Greams Road in 1992 and then at Adyar and Kothwalchawdi in 1993. The phenomenal increase in 1996 could be attributed to a rise in the actual incidence compounded with increased reporting owing to the knowledge of and the access to a woman-dominated set-up like the all-women police station. As has been mentioned above, the above data does not include cases of sexual harassment since these are registered under the 75 Madras City Police Act to enable speedy disposal. Only the offences which are considered to be of a 'serious' nature are registered under the IPC.

Table 3 depicts the progression of crime against women in Chennai in the period 1986 to 1996 November as per the data available with the Chennai Crime Records Bureau.

From Table 3 it is evident that over the years, there has been a distinct upward climb in the incidences of dowry deaths

Table 2: Proportion of Crimes against Women in Chennai against Total IPC Crimes 1990- 1996

Year	Total IPC Crimes	Crime against Women (IPC Cases)*	Per Cent Increase over Previous Year	Per Cent to Total IPC Crimes
1990	12,372	66	–	0.5
1991	12,633	74	+ 12.1	0.6
1992	13,174	77	+ 4.0	0.6
1993	6,930	119	+ 54.5	1.7
1994	5,987	86	- 27.7	1.4
1995	5,642	51	+ 40.6	0.9
1996**	5,633	113	+121.5	2.0

* Does not include cases of sexual harassment (eve-teasing) and kidnapping.
** Data available only till November 1996.
Source: National Crime Records Bureau, Crime in India-1994, Government of India

and harassment for dowry, while in the other crimes, the trend is mixed.

The police set-up is an important law enforcement machinery which is resorted to by the masses as natural redressal forums. Tables 4, 5 and 6 provide an overview of the action taken by the Chennai police department with respect to crimes against women specifically in the cases of dowry death, harassment for dowry, rape, molestation and sexual harassment as per the data available with the Chennai Crime Records Bureau. In Table 4, the police action is depicted in terms of the number of cases reported (Rep); convicted (Con); acquitted (Acq); pending investigation (PT); under investigation (UI); action dropped or facts misrepresented (AD/MF).

The law enforcing machineries have an important role to play in the checking of the phenomenon of violence against women. As is apparent from the above table, the number of persons convicted of as serious a crime as dowry death is only 3.7 per cent while the number of persons acquitted is as high as 36 per cent. As mentioned earlier, more often than not, this is owing to lack of 'adequate' evidence. It is common for a woman's death to be construed as 'accident' or 'suicide' resulting from a loss of status owing to the suspicious moral character of the woman. The guilty manage to suppress all evidence and emerge victorious. In the case of harassment for dowry, 55 per cent of the cases are still pending trial while another 31.4 per cent of the cases are still under investigation. It would come as no surprise if the rate of convictions in these cases would also follow a similar pattern. Such matters are normally viewed as private domestic disputes where evidence is fairly difficult to collect. Also, dowry is considered so much an integral part of a marriage by all sections of populations and is seeped in so widely in the Indian cultural norms, that viewing dowry demand as a crime is still to meet with appropriate righteous indignation. 20 per cent of the molestation cases could not meet with any concrete action owing to either 'misrepresentation of facts' or the concerned parties taking back the cases. This is not in the least surprising owing to the phenomenal pressure that is experienced by the parties who decide to act against injustice.

The conviction of the husband may not be the best solution to the problems of a battered wife. The various alternatives that she has to choose from, each one in itself a compromise, may make it impossible for her to follow up the criminal case. Since the law does not protect a woman's right to the matrimonial home, or offer her shelter during the proceedings she may have no other choice but to work out a reconciliation. At this point, she would be forced to withdraw the complaint as the husband would make it a pre-condition for any negotiations. Secondly, if she has decided to opt for a divorce and the husband is willing for a settlement and a mutual-consent divorce, again withdrawing the complaint would be a pre-condition for such a settlement. Thirdly, if she wants to separate or divorce on the cruelty, she would have to follow two cases, one in a civil court and the other in a criminal court. This would exert tremendous pressure, especially when she is at the stage of rebuilding her life, finding shelter, employment and child care facility. If compelled to choose between the two proceedings, most women would opt for the civil case where they would be entitled to maintenance, child custody, injunction against harassment and finally a divorce which would set them free from their violent husbands [UNESCO 1993]. Needless to say, the process causes tremendous amount of emotional trauma. Moreover, the struggle involved in wading through the various layers of the infinitely slow moving bureaucracy is also enormous. Hence, very often, parties are forced to abandon their struggle midway or are compelled to resort to some kind of out-of-court settlement.

Undoubtedly, the incidence of violence against women within the family has been on the increase too in the past decade as is revealed by Table 5.

The trends evident in Table 5 are quite disturbing. Familial violence in the first half of the decade formed 27.66 per cent of the total number of crimes reported. However, the incidence jumped to an alarming high of 66.34 per cent in the latter half. One possible explanation could also be that the reporting went up during 1991-1996. This could be due to the heightened levels of awareness created by widespread media coverage and attention on the issue; setting up of all-women police stations, family courts; awareness about the legal amendments like 498A and the innumerable campaigns waged by various activist groups throughout the country.

In Tamil Nadu, the Tamil Nadu State Legal Aid Board plays a fairly significant role in the cases of battered women, dowry-related problems and such other matrimonial disputes. Table 6 gives a brief analysis of the cases handled by the Board in Chennai from 1993 to 1996.

Cases are considered settled when the parties either reconcile to live together or go in for a mutual-consent divorce. When either parties are unable to reach a workable solution or are unclear about their expectation or seek the assistance of some other forum, cases are closed or disposed of. Family court is the destination for women seeking maintenance, divorce, custody of children or restitution of conjugal rights. However, it needs to be borne in mind that in cases of prosecution for dowry harassment or dowry death, legal action is entirely dependent on the police investigation. More often than not,

TABLE 4: POLICE ACTION AGAINST WOMEN IN CHENNAI (ACTUAL FIGURES)

Years	Crime	Rep	Con	Acq	PT	UI	AD/MF
1986 to	Dowry Death	81	3	29	23	24	2
1996	Dowry Harassment	334	5	14	183	105	27
November	Rape	183	32	54	57	21	19
	Molestation	175	58	30	44	8	35
	Sexual harassment	6800	6170	198	198	91	143

* Not registered under IPC but under 75 MCP Act

Source: Crime Records Bureau, Chennai

TABLE 3. CRIMES AGAINST WOMEN IN CHENNAI, 1986-1996

Year	Dowry Death	Dowry Harassment	Rape	Molestation	Sexual Harassment
1986	1	3	9	22	550
1987	2	4	21	13	692
1988	4	5	26	17	868
1989	6	18	18	18	611
1990	8	19	18	21	706
1991	14	20	21	19	667
1992	13	37	17	10	578
1993	10	79	17	13	571
1994	12	44	14	16	534
1995	3	23	11	14	639
1996*	8	82	11	12	384

* Data included only till November 1996

Source: Crime Records Bureau, Chennai

cases get hushed up at the investigation level itself owing to the cumbersome, laborious and lengthy process of evidence gathering which is wrought with unwilling witnesses, corruption and so on.

It is important to bear in mind that both at the national and at the local levels, statistics specifically on wife-battering as a crime is conspicuous by its absence. Indisputably, battering would be an intrinsic component of the rampant incidences of harassment for dowry and dowry death. Whether a rightful cognisance of the problem at an early stage would save women from disastrous consequences is a matter which does not need too much thought.

Summary of Findings

A sample of 90 battered women for an in-depth study was purposively drawn from the Tamil Nadu State Legal Aid Board's Counselling Centre for Women, the All-Women Police Stations (Greams Road and Kothwalchawdi) and counselling centres-cum-shelters for victims of domestic violence run by voluntary organisations and women's groups in Chennai. The study primarily focused on obtaining an in-depth understanding of the phenomenon of wife-battering and gain insights into the situations that battered women face on a daily basis and the nature of violence – physical, mental and psychological – endured by them for prolonged periods. In addition to focusing on the responses of women, the study also highlighted the structural and other constraints under which decisions about help-seeking, leaving or reconciling to the situation have to be taken.

It is obvious that wife battering cuts across all religions, castes, and educational level barriers. While Hindus formed a majority of the sample, the proportion of Christian women was far higher than that in the population which could be due to higher reporting. Muslim women formed a mere 3.3 per cent of the sample. A combination of factors ranging from greater community level support systems to low literacy to lack of awareness of options could be possible explanations of this phenomenon. Also, the phenomenon is prevalent in all castes ranging from most backward caste/other backward caste, scheduled caste and scheduled tribes and forward castes. This was amply evident from the fact that women from all these groups were seeking help from the three referral points. Significantly the majority of the respondents were aged below thirty years highlighting the high incidence and/ or reporting of the problem and thereby the vulnerability of young women to abuse. The sample showed respondents with fairly high educational levels with a mere 10 per cent of them being illiterate. Seventy-nine per cent of the women had received formal education ranging from primary to the higher secondary level and 11 per cent were graduates/postgraduates. While it is evident that irrespective of educational levels all women are victims of wife-battering, it is also evident that with a significant level of education, women are unwilling to put up with exploitative situations.

Most of the respondents were largely homemakers and their economic dependency heightened their vulnerability to abuse too. Nearly 70 per cent of the women who had been employed prior to marriage had been forced to quit work by their husbands. However, a significant proportion of the respondents took up employment as a direct consequence of abuse and donned the role of the consistent breadwinner for the family. However, owing to the lack of skills, most respondents were engaged in semi-skilled labour in the various export units in and around Chennai city. Most of the respondents' husbands had the opportunity to acquire skills which enabled them to negotiate better in the labour market and also earn incomes that were significantly higher than those of the respondents. The families of both the respondents and their husbands were mainly engaged in blue-collar jobs. Overall, the respondents in the sample hailed from middle and lower-middle socio-economic strata. While most respondents had gone in for arranged marriages, a significant proportion (35.5 per cent) had opted for self-arranged marriages which ranged from inter-caste to inter-religious marriages. With marriage seen as an ultimate goal in a woman's life, over 60 per cent of the respondents had been married before they had turned 20 highlighting the trend of early marriages prevalent in Indian society. Not too surprisingly, the onset of abuse, therefore, in the majority of the cases (nearly 70 per cent) was well within a year of marriage. This was irrespective of the type of marriage; either arranged or choice. In as many as 44 per cent of the cases, the onset of violence was within a month of marriage. All the women, irrespective of education or class backgrounds, experienced various forms of violence ranging from severe physical battering to psychological and sexual abuse. Physical violence constituted 50 per cent of the total number of abuse while psychological violence formed 48 per cent including economic deprivation, desertion, restrictions on mobility and so on. On an average, every woman experienced twelve different forms of abuse with varying frequencies. Almost all the women reported being slapped/beaten, kicked and insulted in the presence of others. Seventy-nine per cent of the women experienced violence on an everyday basis. Almost always, the causes for battering were multiple. Suspicion of infidelity, alcoholism, dowry and instigation by in-laws formed the main causes of violence in the case of most respondents. Verbal retaliation and independence and confidence of some women posed a real threat to men and heightened

Table 6. Cases Handled by Tamil Nadu State Legal Aid Board

Year	Total	Settled	Failed/ Disposed	Family Court	Transfer
1993*	485	51	15	248	11
1994**	492	47	42	214	7
1995***	498	40	14	198	4
1996	493	39	20	225	5
Total	1968	177	91	885	27

* Date unavailable for January and September 1993.
** Data unavailable for June 1994.
*** Data unavailable for November 1995.
**** Transfer of cases takes place to branches of the Tamil Nadu State Legal Aid Board in the various districts of the sate by the Chennai Counselling Centre in the cases which are out of their geographical jurisdiction This is normally done to facilitate greater speed in investigation and redressal of the cases.

Source: Tamil Nadu State Legal Aid Board, Chennai.

Table 5: Trends in Familial Violence in Chennai, 1986-1996

Years	Dowry Death + Dowry Harassment	Rape + Molestation	Total Crimes Reported	Percent to Total Crimes
1986 to 1990	70	183	253	27.66
1991 to November1996	345	175	520	66.34
Total	415	358	773	100.00

Source: Crime Records Bureau, Chennai.

their vulnerability to increased violence. Significantly, the type of marriage that the respondents had opted for had no bearing on either the onset, frequency, or causes of violence.

The phenomenon of continued violence on the respondents had adverse multiple consequences on the women ranging from injuries to acute tension and anxiety, lowering in self-esteem and nervous breakdown to internalisation of shame and guilt. This affected women's responses to the clearly exploitative situation: they took a long while to actively respond to the situation. Complaints to natal family was the most common form of response. Gradually, many women also retaliated verbally. Over a period of time, women's efforts at help seeking became fairly evident and multi-pronged; they started seeking help from various informal and formal sources which included parents, siblings, in-laws, friends/neighbours, community leaders, employers, police, counselling centres, lawyers and doctors. Significantly, in an overwhelming 92.2 per cent of the cases, parents of the respondent had been the most consistent primary source of support. Among the formal help sources, police and counselling centres were most prominent. However, as mentioned earlier, help was sought actively only after a prolonged period of abuse. Sixty per cent of the women had sought help only after six months from the onset of abuse. In most cases, this was due to an irrational hope that things would change for the better. Educational level, type of marriage and time of onset of abuse had no impact on propelling women towards early help seeking.

In keeping with the earlier observation, despite all the dilemmas, complications and compulsions linked with parental support, an overwhelming majority found their support to be a turning point in their lives. Similar sentiments were expressed regarding the intervention of the counselling centre at the TNSLA and those run by voluntary organisations. However, over 65 per cent of the respondents found interventions at the all-women police stations to be less useful or totally useless. It was amply clear from the patterns in the respondents' help seeking that their expectations of formal bodies was respect for their decisions and a tangible outcome in keeping with their personal choices. Most respondents found the authority of the police stations, intimidating, while by contrast, the atmosphere of the counselling centres especially those run by voluntary organisations extremely reassuring.

When women's effort at help seeking met with repeated hurdles, a majority of them (53.3 per cent) resorted to an extreme step of attempting suicide. This phenomenon was specifically observed alarmingly among younger women, who, undoubtedly experienced a heightened sense of vulnerability driving them towards desperation. Of the women who had attempted suicide, as many as 76 per cent had done so more than once.

At a certain point, some violent incident served as the precipitating factor and prompted many women to leave the marital home. Over 60 per cent of the respondents had left their matrimonial homes due to reasons ranging from increased violence, incurable alcoholism, intolerable levels of suspicion and so on. A significant proportion of women had subsequently sought refuge in their parental homes while others had found a safe haven in shelter homes run by voluntary organisations. 42 per cent of the women who had left their marital home continued to be harassed by their violent husbands who attempted repeatedly to persuade them to return, beat them up for money, claimed access to children and so on. Also, while an overwhelming 69 per cent of the women were clear about their decision not to return, the others were ambivalent but were willing to return if their conditions were met.

On the other hand, the sample also comprised of women who had at an earlier date reconciled with their husbands owing to interventions of the officials at the three referral points. The reasons for the same included advice given by the counsellors, economic dependency, concern for children's future and so on. However, of the women who had reconciled, a significant 44 per cent had not experienced any change in their situations while another 41 per cent perpetually feared the outbreak of violence or were unhappy about only partial resolution of their problems.

Irrespective of whether they were separated or still living with their husbands, most respondents felt trapped, helpless and confused about their uncertain future. Significantly most women in the shelter homes were distinct by the clarity they exhibited about not wanting to return to the violent relationship and were well on their way to carve out an independent existence for themselves and their children.

The need of the hour is the conscious classification of wife-battering as an intrinsic and integral part of violation of human rights. It is imperative to recognise woman-battering as a serious social crime and accord it the same status as other crimes. It is also vital to recognise the role of the media in shaping societal attitudes, values and public opinion. Responsible media portrayal of women's lives and minimising negative, stereotypic imagery are essential steps in achieving the said goal. Public services need to be made more accessible especially to women in crisis situations. Also, while it is necessary to review as well as initiate services for battered women, it is far more important to consciously move away from the image of battered women as victims. Rather, it is imperative to view them as survivors negotiating spaces with several informal and formal set-ups which, in fact, need to be revamped to empower women in a positive fashion. One of the biggest hurdles in the recognition of wife-battering as an issue of importance is the failure to transcend the public/private dichotomy regarding the issue. The challenge remains; in terms of formulation and implementation of strategies, legislations and sensitising of machineries to effectively deal with the multifarious manifestations of violence against women. Above all, there is an urgent need for drastic changes in societal attitudes towards battered women and also those of professionals involved in dealing with/helping them.

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Female Autonomy in Tamil Nadu

Unravelling the Complexities

T K Sundari Ravindran

Commentators on Tamil Nadu's rapid fertility decline during the eighties often cite female autonomy and 'agency' as important contributing factors. This paper examines the extent of female autonomy Tamil women enjoy in their personal lives and within their households and the gender power dynamics between married couples, on the basis of a study in five districts of the state.

STUDIES on women's status and autonomy in India have observed that women in the southern states of India enjoy greater autonomy than their north Indian counterparts. For example, analysing the demographic differences between the north and south Indian states, Dyson and Moore (1983) have held that marriage and kinship patterns in south India permit women to have more freedom and decision-making authority. Women are more likely to marry a close kin, or within their village of birth, and have greater social support from their natal family. Their physical mobility was also less restricted. A more recent study [Murthi, Guio and Dreze 1995] on the same question confirms that the differences cannot be explained except with respect to social and cultural advantages enjoyed by women in south India as pointed out by Dyson and Moore and others.

More recently, commentators on Tamil Nadu's rapid fertility decline during the eighties have tended to cite female autonomy and agency as important contributing factors, based on the relatively higher rates of female literacy and labour force participation in Tamil Nadu. A Sen (1995) has, for example, argued that Tamil women's agency, through its impact on their ability to make 'reasoned decisions about fertility' is an important factor in the state's fertility decline. Jejeebhoy (1997) examines the dimensions and determinants of women's autonomy in Tamil Nadu and Uttar Pradesh. It concludes that Tamil women enjoy far greater autonomy than their north Indian counterparts in terms of almost every index of autonomy considered: decision-making authority, mobility, access to and control over resources, and to a lesser extent, freedom from threat by husbands.

This relative perspective may obscure the nature and extent of gender bias experienced by Tamil women. Karin Kapadia (1997) who examines dimensions of gender inequalities across social classes and castes in Tamil villages concludes that gender inequality cuts across all classes and castes, and that women's status is steadily falling especially in the 'middle castes' which are economically bettering themselves.

Empirical evidence on some of the more commonly used indicators of women's status is however, mixed. Tamil Nadu has the second highest female literacy rate in India – 52.3 per cent, but this is far below that for Kerala (86.9 per cent) which ranks first. Female work participation rate, at 30.88 per cent in 1991, ranked fourth highest in the country (1991 census). But this was accompanied by a decline in the proportion of rural women working as cultivators, and a significant increase in the proportion working as agricultural labourers, and more importantly, as workers in the non-farm sector.[1]

Further, during the decade 1981-91, there was a steeper decline in sex ratio (female per 1,000 male) than in the previous decade; the female infant mortality rates, which were till then generally lower than male IMR, became consistently higher.[2] Data from a sample survey conducted in 1996 showed exceptionally high female IMR in three districts: Dharmapuri, Madurai and Salem, with the ratio of female to male IMR of 1.9, 1.4 and 1.1 respectively. Female infanticide has been reported from several parts of the state, and recent data show that 'social causes' (read infanticide) accounted for 8 per cent of infant deaths in 1995 [Athreya and Chunkat 1997].

The present paper examines the extent of autonomy Tamil women enjoy in their personal lives and within their households and the gender power dynamics between married couples, based on in-depth interviews carried out in five districts of Tamil Nadu, with 141 women and men belonging to different age and caste groups. For information on perceptions on women's status, we have used information gathered in focus group discussions.

The paper is divided into four sections. The first section examines the concepts of status and autonomy and outlines the definitions used in the present instance. The second section describes the study methodology and characteristics of the respondents. The third section presents findings from the qualitative study, and is followed by the section with concluding observations.

I

Women's status is a multidimensional entity, and different studies tend to focus on different aspects of status. Education and employment – the two indicators of women's status often used, have a problematic relationship to status. Better education or engagement in paid economic activity may not necessarily be indicative of/lead to greater autonomy or better status. In fact, women's entry into the paid labour force as a consequence of impoverishment is a well-documented phenomenon.

The various components of status may move in different directions in a given time period, so that defining what constitutes 'improvement' or otherwise, is a difficult task. For example, as Swaminathan (1997) points out, women's entry into the labour force may have very negative consequences for their health. Again, women's status can be conceptualised at aggregate and individual levels; there may be differences in how a variable behaves when considered at the different levels. Dixon (1978) defines women's status as their overall position in society, and distinguishes this from 'power' which identifies with women's ability to influence and control at the interpersonal level. In other words, like children, women could also be highly valued and at the same time, controlled and dominated.

In a further elaboration of the concept of female power, Safilios-Rothschild (1982) identifies two types of power – that which is derived from men, and power which is derived independently of men. The former consists of the power that women may enjoy because of who their fathers and husbands are. The latter includes women's ability to control decisions about their productive and economic activities, including freedom of movement and control over the resulting wage or income; and ability to have an important say in decisions which affect their lives. It must be clarified that female power in

this instance is not used in terms of 'power over' but in the sense of 'power to': "power-to is the ability to perform or produce, and implies also the freedom and resources to do so. Power-over refers to domination and control" [Goodrich 1991]. Viewed in these terms, female power is very similar to the concept of female autonomy used in many studies. Autonomy has been defined as "the ability...to obtain information and use it as the basis for making decisions about ones private concerns and those of one's intimates" [Dyson and Moore 1983].

Jejeebhoy (1995) identifies five separate but interdependent aspects of female autonomy as important in the education-fertility relationship. (i) Knowledge autonomy -- knowledge of, and exposure to, outside world; (ii) Decision-making autonomy: having a say in decisions concerning their own lives and well-being; (iii) Physical autonomy in interacting with the outside world; greater mobility; (iv) Emotional autonomy: less self-denial among women; greater bonding between couples and between parents and children than with the extended kin; and (v) Economic and social autonomy and self-reliance: access to and control over economic resources, increase in self-reliance for social acceptance and status. In a more recent paper [Jejeebhoy 1997] she has added on an additional dimension: freedom from threat of violence from husbands. Literature on women's reproductive rights identifies women's security in and control over their bodies as the core of female autonomy. This includes control over decisions related to sexuality and fertility, and freedom from violence.[2]

In this paper, female autonomy is used in the sense of having control over significant decisions affecting their lives, and having access to the resources that would enable them to do so. While the paper examines access to resources and women's control over decision-making within their households, it focuses centrally on women's ability to make choices regarding their marriage, sexual lives and childbearing, and freedom from threat of violence. This is a deliberate choice, reflecting this author's conviction that women's control over their bodies is fundamental to their autonomy.

II

This paper uses data collected as part of a larger qualitative study on fertility transition in Tamil Nadu.[3] Fifteen villages from six districts were purposively selected to cover a broad spectrum of fertility levels and levels of female literacy (as an indicator of social development), to be able to capture experiences from varying contexts. The districts from which villages were selected were: Chidambaranar, Tiruchy and Periyar (four villages each), Tirunelveli, North Arcot and Tiruvannamalai (one village each).

Field work was carried out between November 1994 and July 1995. The team of researchers consisted principally of young men and women with experience working in development projects and with considerable 'people' skills, but also included two recently graduated masters and doctoral students with specialisation in demography and sociology, respectively The research team spent two months in preparatory work, visiting all the 15 villages once, meeting key informants and carrying out house-listing. A second visit was made to each village to carry out focus group discussions for the fertility transition study mentioned above and the in-depth interviews on which this paper is based. In each village, the research team stayed with one of the families throughout the period of data collection.

Some of the respondents for in-depth interviews were identified from the focus group discussions. Others were identified based on the information we had from the house-listing. In each village we aimed at including women and men from different age and caste groups. We also recruited those who were not likely to participate in focus groups because the topic of discussion was childbearing and family planning: widows and separated women, childless women and men. Interviews were conducted at a venue chosen by the respondents, and often took place in the room where the research team stayed, because of the privacy it offered. Interviews were conducted by research team members of the same sex as the respondents.

The interviews were not one time events but took place over two or three sittings. These were not taped but detailed notes were taken verbatim, and the report written up immediately after. In fact, it may be a misnomer to call these 'interviews', because the conversation did not take a 'question and answer' format. We started with an open ended question about their lives. The flow of the respondent's narrative was not interrupted as far as possible and there were only gentle probes occasionally to get more details on specific issues of interest to us. Information from interviews was often supplemented with data and insights gathered in the course of day-to-day interaction with the respondents.

A crucial factor influencing the whole data gathering process was the way the research team members merged into the village community because they were all from a similar socio-cultural background. The women helped with carrying water, cooking and minding children for the families they stayed with; and the men hung around with the youth, went for walks and played card games. There was one instance when one of our women field workers, on request from one of the respondents whose husband was away for the night, spent the night in her house for 'thunai' (to provide company because it was not appropriate for women to spend the night alone) and carried out the interview during this time.

The population of the villages varied from 596 to 12,571. Seven villages had an SC population of below 10 per cent, and in four of these, it was less than 2 per cent. In six villages they constituted between a tenth and a quarter of the population and in only two villages did they form as high as 44 per cent of the population.

Agriculture was the main source of income in all but two villages. Agricultural income, however, was perceived to be dwindling, and the failure of rains and water shortage are repeatedly mentioned. Entire families of those dependent on wage labour migrated in search of work during the off-season in nine of the 15 villages. Work opportunities for women were mostly in agriculture, and their wages were often half that of their male counterparts, varying between Rs 5 and Rs 25 per day.

It is difficult to describe the study villages either as 'developed' or 'underdeveloped'. A great deal of investment has gone into infrastructural development, but basic livelihood issues have not received adequate attention One gets a sense of there being infrastructural development without human development. For example, all but one village was connected by buses to the nearby town. The Tamil Nadu Integrated Nutrition Programme was operational in all, and the ICDS operated balwadis in 10 of the villages. The bigger villages had post offices, markets, banks and credit co-operatives, and eight of the 15 villages have a telephone within the village. In 12 villages there is a community television provided by the government for public viewing. The presence of 'dish antennas' accessing satellite TV channels was a feature of all the villages.

Twelve of the 15 villages had a primary school, and the remaining three, within three km walking distance. Government health facilities were present in eight villages and were dysfunctional in all but one. There were taps and borewells in 13 villages but water shortage was still very

such as drainage and toilets were absent in all villages, roads criss-crossed with channels of dirty water attracting mosquitoes a common sight

The situation of the scheduled castes and of the scheduled tribes (in the one village where there was ST population) was vastly different from that of their counterparts from other castes. In one village scheduled caste children were unable to attend the local middle school because the Moopanar community won't let them. In another, there had been a recent incident of rape of a 16-year old SC agricultural labourer by the farm owner. Another SC hamlet was a crowded, low-lying settlement with no infrastructural facilities including water and were not permitted to fetch water from the upper caste section of the village. The ST population eked out a miserable existence, finding employment as migrant workers in neighbouring districts for only part of the year, and living on roots and coarse cereals grown in small patches of land. The table summarises the characteristics of the respondents.

III

Perceptions about changes in women's situation in the family and society were discussed at length in the focus groups and spontaneously expressed in some of the interviews. There was agreement overall, among young and older men and women, that women were better off now than they were before. More of them were educated, more of them were employed, and their prospects were bright Further probing however revealed that reference to better employment and upward mobility was in general terms of what they now saw as happening around them in the world at large, and did not represent the situation in their villages or in their own lives.

The most graphic example of this was encountered in a focus group discussion with young women, when a 16-year old who has been married for a year said that women were now doing well for themselves: they were now collectors and police officers, judges and ministers. When asked about her own life, she responded saying, "what if this is not true in my case? It still shows that women are capable of doing everything men do " There was one exception to this general perception, where the women's group felt that women's lot may have improved among those who are well-off, but among the poor, nothing had been gained.

Besides the general feeling that women were doing better, some definite changes

and men, women today dressed better, were modern ('naagarigam') and knew how to speak to strangers and conduct themselves in public. The men were proud of these features in their wives. The older women said that younger women were more confident these days even if they had only a few years of schooling. They knew more about the world ('vevarum'). They brought up their children better.

There is a positive attitude to educating girls especially among the women. They would like their daughters to study and get jobs, and earn a 'sircar' salary. Those who are not educated and are at home have to be under the man's thumb; those who go out and work in offices can be equal to men; in fact, they are equal.

Practically no one (barring isolated exceptions) male or female, was against women's employment either. Women's employment was seen as necessary to be able to meet the increasing expenses towards the children's upbringing. Some of the women's groups stressed on the relative financial independence that came with 'having five rupees in one's hands '

Perhaps because of their awareness of what is possible for women if given the opportunity, there is a great deal of dissatisfaction with not having received much help from the government to further their status There are no development programmes for women in most of the study villages. The 'Arivoli Iyakkam' has been a positive (literacy programme) experience in one village, and an NGO programme helps some women supplement their income in another village. Women want jobs and the possibility of earning a livelihood, and not 'income generating programmes' to supplement their (non-existent) income.

Against the backdrop of these perceptions, we now examine actual life experiences of the women and men.

Access to Resources in Childhood

Son preference and discrimination against girl children in India with respect to investment in their health and well-being, and on their education, is a well documented phenomenon. The macro data for Tamil Nadu – the falling sex ratio, the female excess mortality in infancy and childhood and the gender gap in educational attainment – also indicate the presence of differential treatment, if not discrimination. In the present study, only three women reported very severe ill-treatment in their infancy and childhood because they were girls. Two others were

not bear any sons.

Because both of us (my older sister and me) were girls, my father ill-treated my mother and us. We got no treatment when we were sick. He would not lift us up even if we cried. I believe I was three months old, sleeping in my cloth cradle and my mother had gone out to fetch water. I woke up and cried. Irritated, my father held me in one hand and beat me like a monster. An old lady from next doors came running and shouted at him, 'do you have no sense?' And he said, "I wish these were dead, they don't seem to die, cursed ones." (30 year old non SC woman, no schooling, cultivator.)

He curses the baby girl all the time, if she cries he says, 'is she going to earn me a

Table: Characteristics of Respondents

Characteristics	Women (n=70)	Men (n=71)
Caste		
Non-SC*	53	54
SC/ST	17	17
Religion		
Hindu	63	64
Christian	7	7
Age		
15-19	3	0
20-24	8	4
25-34	29	21
35-44	17	25
45-59	13	16
60+	0	5
Type of Family		
Joint	19	12
Nuclear	51	59
No of Living Children		
0@	10	9
1	14	18
2	16	17
3	16	17
4+	14	10
Years of Schooling		
0	30	17
1-4	6	7
5-7	12	16
8-10	17	16
11-12	5	9
Above 12	0	6
Occupation		
Cultivator	5	20
Housework	21	0
Agricultural wage labourer	23	18
Non agricultural wage labourer	11	16
Salaried worker	5	7
Other	5	10

Notes. * Castes included are: Moopanar, Thevar, Vanniyar, Pillai, Sengunda Mudaliar Ahamuday Mudaliar, Nadar, Chettiar, Padayatchi, Gounder, Achari and Barber.

@ This includes five women and four men who are recently married, and four women, six men who have no living children after several years of marriage.

fortune, the forebearer of daridram (poverty, destitution), go throw her out somewhere. He wants a son. I really, fervently hope that this baby (pregnant now) is a boy. If not, I have to keep hoping and trying. (19-year old SC woman, 10 years of schooling, home-based; first child is a girl.)

One of the men mentioned that his mother had advised him to 'do away with' (kill) his second and third daughters. Interestingly, he did not belong to any of the castes in which the practice of female infanticide has been reported in recent years, but a poor scheduled caste agricultural labourer. Differential feeding in later childhood was mentioned by several women who talked of their brothers receiving eggs and meat while they were not. Girls were expected to control their desire for food, and a popular Tamil saying was often cited in this connection: '*undir surungudal penditkkazhagu*': to restrict one's food intake is becoming of a woman.

> They'd give my brothers egg fry, but not to me or my sisters. I used to ask my mother, are we not born of the same mother? And she would reply, "you girls go away to another man's house after all. The boys will take care of us." (43-year old woman, non-SC, eight years of schooling, secretary of local AIADMK party unit.)

There does not appear to have been overtly discriminatory attitudes to girls' education even 20 to 30 years ago. More often than not, non-enrolment was a feature of one's caste and economic status, and common to both boys and girls. On the other hand, when resources were scarce or when there was a need for child care support, the decision regarding who would continue schooling was directly related to gender role expectations. The girls stayed back at home to carry out housework and care for their younger siblings and sometimes combined this with wage work in agriculture. The boys remained in school in preparation for their roles as future bread winners.

> I studied only up to class 5. They could not afford to educate me further. All household tasks became my responsibility. Because of the belief that boys should not work (at home), I was retained at home to cook, clean, wash vessels, etc. Mother used to work as agricultural labourer. (36 year old woman, non-SC, five years of schooling, home based.)

> Both my father and my older brother made me do all their work: keep their plates, wash after them, keep hot water ready when they come from work.. All this even though I was myself working outside the house.(30-year old woman, non-SC, five years of schooling, home-based.)

Menarche, referred to commonly as 'coming of age' was a major turning point in the lives of girls. Perceived as the marker of a girl's readiness for marriage and motherhood, it brought with it restrictions over her interaction with men and boys and on her physical mobility. There is an implication that the adolescent girls' unbridled sexuality needs to be controlled 'for their own good', so that they do not 'get into trouble'. A code of conduct was imposed on them, appropriate for a 'good' (sexually moral) woman who would uphold her family's honour. Despite more girls than before getting educated and finding employment outside the village, the essence of this code of conduct has remained unchanged.

Restrictions included not being allowed to go out of the house alone, or visit neighbours without being accompanied by older relatives. They could no longer linger on their door steps in the evenings, amusing themselves with watching passers-by, or get together with other girls and have fun. Even laughing aloud was not permitted in some households. The purpose of these restrictions was to prevent the girls from getting involved with boys. This was conveyed to the girls in explicit terms in most instances.

> If I talked to any boy, he would thrash me. There had been instances of girls getting pregnant before marriage, in my village. That is why he did that.(18-year old woman, SC, no schooling, agricultural wage labourer.)

For girls who were still in school, menarche usually meant discontinuing their education. The very few women in our study who continued schooling after menarche did so because there was a high school in the village where they lived. However, to be permitted to continue their schooling, they had to establish the trustworthiness of their conduct, going to school with their "eyes focused on their big toes and never stopping to talk to anyone".

What of the many girls who went out to work in their own fields, or as wage labourers? They were usually permitted to work only within the village; but when economic necessity made work outside the village unavoidable, they were sent out in groups, accompanied by older women known to the families concerned, or by their older brothers. They were watched over by their mothers, brothers or kinsmen, and were not allowed to talk to men who were not related as brothers ('annan murai'). Girls seldom questioned these restrictions:

> I don't think I minded these restrictions. It is parents' responsibility (to impose these) (40-year old woman, non-SC, no schooling, agricultural wage labourer.)

Fear of 'losing all respect' and 'getting themselves a bad name' was a powerful motivation for abiding by these codes of conduct expected of 'good' girls.

> Even if I spoke to the boy next door people used to say I was not behaving modestly. So I became more careful (30-year old woman, non-SC, 10 years of schooling, cultivator.)

> My mother used to say, "behave in a way that no one can say anything wrong about you". I took it as a challenge, decided I will prove that I can live like that. (33-year old woman, non-SC, eight years of schooling, home-based.)

There were only a few expressions of disapproval or protest:

> I used to be very hurt and insulted, for his lack of trust in me. I have often cried about it (18-year old woman, SC, no schooling, agricultural wage labourer, cited above.)

> I hated it. I still think this is very bad, it destroys women's self-confidence. What is the point in caging them at home? Who benefits? (37-year old woman, non-SC, eight years of schooling, beedi worker and convener of the local mahila mandal.)

Choice of Marriage Partner

The freedom to decide whether, who and when to marry, among the most fundamental aspects of a person's sexual autonomy, was not available to most women. Sixty-five of the 70 women in this study had their marriages arranged by their parents and relatives, and of these, only six were even asked if they approved of the groom chosen for them.

> In those days, it didn't matter whether or not you liked the groom. It was as the parents decided. (37-year old woman, non-SC, no schooling, agricultural wage labourer, cited above.)

Roughly just over half the women had married their 'murai payyan' or marriageable kin – the mother's brother, or the father's sister's son – and were therefore acquainted with the person they were to marry. Of the six whose consent to a marriage alliance was ascertained prior to the wedding, only one woman rejected three offers, and agreed only to the fourth. In other instances, they merely acceded to their parents' wishes. For the most part, this was because they believed that their parents knew what was best for them. But they sometimes consented even when they were not quite happy with their parents' choice:

> Father fixed marriage, then asked me if it was okay. I said it was as he wished. That's what I was expected to say. My husband was not very good looking, not educated. But that was my fate. (46-year old woman, non-SC, 11 years of schooling, TINP staff; widow).

In some instances, parents did not pay heed even when the women explicitly expressed their unwillingness or dissatisfaction with the husband chosen for them. One of the respondents was married to a much older uncle (mother's brother) so that his property would remain within the family, even though the parents knew that she was in love with a neighbour's son. Another woman had to marry a relative because her mother could not afford a dowry. A third was told by her father that he would not keep her at home any longer, and that she had to marry the man her father chose. Three women were married as second wives, and one as a third wife, to married men. Several years after their marriage, they still regret having been forced against their wishes: "Marrying me to him was like giving a garland to a monkey" (AIADMK secretary cited above)

Expectations from a potential husband were basic – 'he should not drink, not beat me, and support me and the family' was the description most frequently heard. Some of the younger women had a few additional requirements – that the husband be educated and have a 'job', that is, be employed in non-agricultural work. There is a perception that younger women are more outspoken about their preferences and no longer just accede to their parents' wishes:

> ... girls these days .. say 'I like him, I want to marry him', even when parents don't approve. Or the other way around. These days girls specify - "he should be salaried, educated, modern". (36-year old woman, non-SC, five years of schooling, home-based.)

The few (five) women who married men of their own choice had known their future husbands for a very brief period. They met them in their places of work, or were related to them. Given the strict sex segregation and restrictions even against talking to men, the couple had to snatch fleeting moments of interaction with each other. Marriage became an inevitable outcome of 'people beginning to talk' of their attachment, and the men were compelled to marry the women in order that the women's 'honour' may be upheld. None of the women succeeded in getting parental support for their wedding, and had eloped and married in a temple.

All but one of the five women now regret their decision. The opposition from husbands' parents has made their lives miserable. Their husbands have not been able to break away from their parents because of financial constraints, and the women having come 'empty handed' (with no gold or cash as is usual in a traditional wedding), and not having any support from her natal family, has only exacerbated matters.

> He does not give me money, does not care about the child. But no one supports me, my brother says I have to face up to my decisions. Even yesterday my husband picked a quarrel and beat me badly. Today I went out with the baby in search of some poison to buy. I don't know what to do with my life, why I have landed myself in this hell. (25-year old woman, non-SC, no schooling, home-based.)

In contrast to the women, men were definitely asked for their consent even when they married the 'murai pennu' (marriageable kin – sister's daughter or mother's brother's daughter]. The few who mentioned being 'told' who to marry (6 of 71) were men aged 45 or more whose marriages are at least 20 years old. In a more recent development, men 'view' several 'suitable' girls before they make a final choice. And they were clear about a basic requirement of a prospective wife: obedience.

> I had seen seven girls before this Didn't approve of any. Either the girl was too talkative or much better off than me. These kind of matches don't work. They won't respect you With this girl, she was suited for my status, and more importantly, she liked me. So I knew she would be obedient. (23-year old electrician, non-SC, seven years of schooling.)
>
> I didn't want a girl from a well-to-do family. Then she would start demanding that she needs tiffin, not rice; that she wants silk sarees not ordinary ones, need a bathroom at home, want sandals for her feet. (29-year old school teacher, non-SC, secondary grade training.)

There were two men who had married 'for love', and once again, these turned out to be marriages entered into because 'people were talking' and the woman's 'honour was at stake' Both marriages were on the rocks.

Remarriage was rare among women, and those who had been widowed or separated had no choice but to remain single. There was only one exception to this, a woman whose husband was impotent who remarried. Even so, the decision to annul the first marriage and to remarry her to another man was taken by her father and brothers, and not by her.

While marriage was a once in a life-time event for a woman, a completely different set of rules applied in the case of men. Three men in this study had two wives. In one instance, the man had remarried because the first wife had not borne any children. The other two had married again because they fell in love, but had not annulled the first marriage. One man had remarried three months after his first wife had committed suicide following a quarrel with him. And a widower who had undergone vasectomy was able to find a young women to marry him.

Dowry and Choice of Partner

A majority of the women (55) did not mention dowry as a factor affecting their choice of a marriage partner. A few gold ornaments: usually earrings and nose stud; silver anklets, household utensils and bedding were the most common gifts given to daughters at the time of marriage. Those who were better-off gave more gold, and sometimes, land and cash. But none of these were demanded, they were gifts or 'seedanam' (tamil version of streedhan or bride wealth). What appears to have been more important are regular gifts of new clothes and ornaments given during festivals, at the birth of each child and when the grand daughter or niece 'came of age'.

Those who reported that their in-laws had demanded a dowry were all middle caste women from the Tiruchy, Chidambaranar and Tirunelveli villages. They had paid dowries in cash and gold, and in fairly large amounts: varying from Rs 3000 and three sovereigns of gold up to Rs 20,000 and 20 sovereigns of gold.

In the scheduled caste groups, dowry had not been a practice even up to 15 years ago, and the men said they had paid a bride price when they married. The women concurred, saying that even the gold was often given by the groom's parents. But this was no longer the case.

It is striking that dowry appears to have become an essential component of all present day marriage transactions, across castes. Women who have recently given their daughters in marriage report having paid dowries well beyond their means. One woman who had not given any dowry said that by the time her younger sister was married, her father had to sell his house and pay Rs 20,000. Others report of the anger and frustration of their husbands who feel cheated that they did not get dowry like the younger men now do:

> Every now and then he comes back after seeing someone else's house, and beats me up saying I did not bring any dowry. I once asked him, 'why did you marry me? You knew we could not give dowry.' He says, "I did not know then. When I see how chaps far less deserving get fat dowries, it makes me really angry." (25- year old woman, non-SC, no schooling, petty vendor.)

The focus group discussions also indicated that demanding dowry has become

a pervasive practice, including in those in which it was never the case earlier.

> It has seeped in everywhere like poison... . Even a cowherd asks for dowry and wants the wedding expenses taken care of by the bride's parents... In earlier times the girl was enough, they needed the girl to help in the house, to light the lamp in their house, so they even gave gold... The groom's parents would come seeking an alliance...they would walk a hundred times up and down to our house.

However, no one dared to challenge this practice, because it would affect the lives of their daughters. "If we don't give dowry our daughters would suffer, if we give they will live well. Don't we hear stories about stoves bursting and girls burning?" Or, "If we don't give dowry, the daughter will remain at home". Most young men admitted to having received a dowry, and said that they had not insisted on it, but did not see it necessary to refuse either. As one young man neatly summed up, it was "the need of the times and obligation of parents".

> As nagarigam develops, dowry has become widespread. In earlier times, the boys were uneducated, so they were not given a dowry. We are educated, modern, we deserve it (dowry) (25-year old tractor driver, SC, seven years of schooling.)

> My father never received any dowry – my mother was one of six daughters. I received 5,000 cash and 10 'pavun' as dowry. They say it is wrong to take dowry; but it is necessary. Because she brought cash, it was possible for me to invest in business and improve my earnings. (29-year old man, non-SC, cultivator, 11 years of schooling.)

A very poor scheduled caste father described how he aspired for dowry for his son – this was part of his aspirations for a better future for his children – because the son had 'completed class nine'. He himself was illiterate and had never been offered dowry, but the son's bride brought '1 sovereign of gold, a goat and a cow'. Men who married for love and did not ask for a dowry could be influenced to believe that they have been denied their dues·

> I sometimes regret having married someone who came empty-handed. I would have got some gold, vessels and all that. Even after the birth of two children they have given nothing at all. (32-year old man, non-SC, cultivator, 10 years of schooling.)

Some men even thought it fit to complain that while they had received sizeable dowries, they had received no gifts following the birth of their daughters/sons.

Unfortunately, the practice of demanding is likely to intensify discriminatory attitudes towards girls, and also seriously affect girls' perception of self worth. And given that it is young men themselves who favour and promote the practice of demanding dowry, it leaves women with very limited options in the 'marriage market' but to concede to arranged marriages.

The many restrictions on young girls' freedom to move around, and to associate with members of the opposite sex are aimed at ensuring that they remain 'unspoilt' virgins at the time of marriage. What is the extent of sexual autonomy women enjoy within marriage? More men than women talked about sex within marriage, and we have attempted to piece together a picture based on these limited accounts.

The men spoke of the importance of sex in a married relationship, and felt that if women understood men's sexual needs and were 'consenting' partners, there would be fewer problems within marriage.

> To put it plainly, happiness (pleasure) in life is only at night. The woman should co-operate in these matters.

Women's refusal or disinterest in sex could lead to conflicts.

> Sometimes, when I am in a 'mood' (for sex) and she gives excuses and refuses, I have beaten her. Then I'd take my bed and go to sleep outside the house. And she would follow me out, and beg me to forgive her, and take me back in. (37-year old SC agricultural labourer, three years of schooling.)

One man also mentioned that sexual satisfaction was what kept a woman happy and satisfied in marriage.

There appears to be a great deal of insecurity among men about their ability to keep their wives satisfied in marriage and faithful to them. They sought to ensure that their wives did not have the opportunity to associate with other men and 'get lured' away.

> Cinema has corrupted the women. It gives them ideas, and they decide they don't like their men and leave them for someone else [in 92]

> She shouldn't talk to men other than me; even to my brothers and relatives, only in my presence. If she violates this, she should be given 'soodu' (given a small burn with a hot metal – a form of punishment; but it is not clear if he uses this metaphorically, meaning punish her in a way it hurts, or literally). I'd do it because otherwise I'd become the laughing stock among other men. (35-year old man, SC, four years of schooling, agricultural wage labourer, has worked as construction worker in Delhi for many years before his marriage.)

G, a young man, whose wife had gone away to her parents' after a showdown with him saw this as an affront to his very manhood, and wanted to 'drag her back by her hair', because

> If you leave such women alone, to do as they wish, she will start 'grazing' as she pleases (term used to indicate having sexual relationships with anyone she desires). I'll bring her around to obey me. The whole village will laugh at me if they know what I am going through. (21-year old man, SC, six years of schooling, cultivator and tailor; also has a small cloth shop.)

The women had a very different story to tell. A young mother said her husband was not 'understanding', and always got very angry if she said no to sex, even though the baby was very small and she was so tired. A older woman in poor health said that if she refused, her husband hit her, saying who was she planning to sleep with, if not with him. In the extreme, sex within marriage could be very abusive, an expression of control and domination.

> No gruel to drink, I would lay my children beside me and lull them to sleep Then he would come drunk and compel me to sleep with him. I would often be very hungry. Even if I plead he would not listen. One day after sex I almost fainted. That's how I bore my children. My youngest died for want of milk, I had no milk and could not even buy her any, he never gave me any money for that. Even now he is like that. I am nearly 50, I still have to sleep with him. I think I have sinned terribly in an earlier life, to live like this. I have never enjoyed sex. (50-year old woman, non-SC, eight years of schooling, home-based.)

Not all women who passively complied with men's wishes. Some used sex as a bargaining chip to get what they wanted, or, as one women put it, "the only skill we can use".

> These men want us for only one thing... Don't we have rights for other things? When I get angry I get stubborn at night. And then he comes down his high horse and gives in. (22-year old woman; non-SC, 11 years of schooling, TINP teacher.)

Double standards in terms of sexual behaviour are well established. While the woman's physical mobility and association with other men is closely monitored and controlled, several men spoke about their sexual exploits if not after marriage, then "when they were bachelors". Women themselves said that the men had a right to reprimand them "if they went here and there" without their husbands knowledge or consent. And that while it was 'wrong' of men to have extramarital relationships, a clever woman would know how to keep her husband satisfied. "When the food at home is good, no man will want to eat out."

Decisions Related to Childbearing

These include decisions around whether, when and how many children to have; and decisions related to the methods or strategies they would adopt to regulate their fertility. For women in this study, there was no question of choosing 'whether' to have a child. Women were under tremendous pressure to bear a child soon after marriage.

> When I got married, I never thought in terms of controlling the number of children I had. I would pray that I had at least two children growing to adulthood. (30-year old woman, non-SC, five years of schooling, home-based)

If they had not conceived by the end of two years, the women were abused by their parents-in-law and often, husbands as well. It became the responsibility of the women's parents to take their daughters for medical 'check-up'.

> My mother-in-law began to say, "Everyone who married after her has a baby, my poor son is ill-fated. My parents took me to the hospital. I took expensive tonics. Even then I did not become pregnant. Then we turned to traditional medicine, and after one year I conceived. (35-year old woman, SC, no schooling, agricultural wage labourer.)

The men confirmed that it was important to have a baby soon after marriage. According to some, their friends would start doubting their virility if this did not happen. G is a 32-year old cultivator (male), who has been married for 10 years but does not have any children. He is totally preoccupied with this. He kept returning to this issue again and again during the interview.

For the women, the risk associated with any decision to postpone or terminate a pregnancy, or to stop childbearing through use of a permanent method of contraception was extremely high. This was a consequence of relatively high levels of pregnancy wastage and infant and child mortality combined with the high value placed on fertility. Of the 70 women in this study, only 31 had all their pregnancies ending in live births and surviving past childhood. Three women were childless, and the remaining 36 had experienced either miscarriages or stillbirths or lost their children in infancy or childhood. In order to have a few living children, these women had to go through frequent pregnancies at a great cost to their health.

Choosing the timing of their pregnancies was not seen by most women as an option open to them. While the NFHS has shown that there is widespread knowledge in Tamil Nadu of spacing methods, smaller scale studies have indicated that there is a deep distrust of many of these methods. Poor screening and follow-up by the family planning service providers has only confirmed the widespread belief that methods such as the oral pill and the IUD are a health hazard for women.[4]

This was found to be true in this study as well. All but three of the women had chosen not to use a modern method of contraception for spacing, because both oral pills (tablet) and Copper T were considered to be harmful to their health. A number of local examples of women who had suffered from using spacing methods were cited to explain why they thought so. For women whose husbands co-operated – less than a tenth of the women interviewed – 'self-control' was the usual strategy to space pregnancies. This included prolonged periods of abstinence following a delivery, and avoiding sexual intercourse 'during some periods in the menstrual cycle'. For the rest, abortion was the only recourse. Almost a quarter of all women who had ever been pregnant had attempted to terminate a pregnancy. Eight women had had an abortion, two of them more than once.

The decision to adopt a permanent method of birth control cannot be an easy one for women like A, a 30-year old agricultural labourer who had six pregnancies but has only three surviving children.

> I wanted to have the operation after my second son (of the fifth pregnancy) was born. But I had lost 2 children before. So did not. Now I have a small baby, and no one to help even hold the baby. I am thinking seriously about the operation, but am not sure. (30-year old woman, non-SC, no schooling, agricultural wage labourer.)

There are others whose request to have a sterilisation has been turned down because they are in poor health. Clearly, not all women are able to choose to stop childbearing.

About half the women interviewed by us had undergone sterilisation. In the case of four women, the decision was made by their husbands, and the women had no say in the matter. However, the vast majority of them had taken the initiative themselves. Economic necessity and lack of childcare support are strong motivating factors.

> Three months after my third child I had the operation. We were in financial difficulties, my husband does not have regular income and with my first son's poor health I cannot leave him and go out to work. His hospital expenses are also heavy. (28-year old woman, non-SC, eight years of schooling, home-based.)

> Who is to help me if I have too many children ? After this delivery, may be for 2 or 3 days someone in the neighbourhood will bring in food. But after that, I have to sit up and slowly, moving on my seat, begin to do the cooking and housework. For draining the cooked rice, I would call the girl next door for help because I cannot carry heavy weights. I will somehow carry on, from one day to another. What else can I do? (19-year old woman, SC, 10 years of schooling, home-based, pregnant with her second child; cited above.)

The women express a clear sense of entitlement to birth control, but not because they see it as their right to control their fertility but as their prerogative as mothers interested in the well-being of their children.

> What do men know about birth control? They think it is okay to have as many children as are born. It is we women who have to go through the hard times. I think this has to be the woman's decision. (23- year old woman, non-SC, eight years of schooling, home-based.)

This is not to say that husbands, and mothers-in-law do not play an important role in the women's birth control decisions. The men actively discourage their wives' use of spacing methods, but don't use the condom themselves either. They often intervene to postpone women's decision to terminate a pregnancy or to have a sterilisation operation. However, we find that barring a few exceptions, the women give in only up to a point, and then go ahead despite opposition.

M, a 25-year old woman with high school education, was not allowed to have an operation after her second delivery. When she became pregnant soon after, she decided to have an abortion, but her mother-in-law and husband were once again, opposed to it. She went ahead with the abortion and sterilisation all the same.

> I thought, we have two children, what have we done to take good care of them? Why another one? I had abortion and then had operation. They (husband and mother-in-law) settled down after some fights.

It is not only educated and young women who feel so. S is a 35-year old SC agricultural wage labourer. After her third child, she wanted to have the operation but her husband felt that they should have one more son.

> I told him – we are unable to support these three children, we cannot even give them decent food. And you want me to have the fourth? I really gave him a piece of my mind. Then I went ahead on my own. Never asked me anything about it later. He has all these notions – that we need at least two male children, even though we haven't the capability to raise them decently.

Women whose husbands have been ill-treating them and not supported the family financially also feel that it is their right to decide when to stop childbearing. This was the case with P, and L, both agricultural wage labourers, who after four and five pregnancies respectively, decided they had had enough. Accusation by the husband that she was carrying on an affair with another man, made up another woman's mind to go ahead with the operation against her husband's wishes.

Overall, the men we interviewed were in favour of birth control. There were however, differences of opinion between them and their wives on whether to continue a pregnancy and when to stop childbearing. We got a glimpse of the kind of opposition women had to face for 'going ahead anyway' when we spoke to a 30-year old SC agricultural labourer. After four pregnancies and two surviving children – one male and one female, the man's wife had undergone a tubectomy against his wishes. It was her 'thimuru' (arrogance), he said, that made her do this. To teach her a lesson, he had decided to remarry, and the wedding had been fixed.

Gender Power Equations between Married Couples

Divergent views expressed by women and men on the issue of power equations between married couples revealed considerable dissonance and tensions. Women's narratives betray the conflict between prescribed gender roles and changing realities and expectations. Many women saw it fit to enunciate a number of qualifications for a good wife , or a 'good' woman, not necessarily in relation to themselves. She was one who took good care of the house and children. She had to be thrifty; she did not buy things for herself unless her husband asked her to. She did not argue when her husband lost his temper This would maintain the family's peace because " two hands are needed to make a clapping sound" (it takes two to have a quarrel) .

A, who married a man she didn't like, told us how she set out to prove that she was a 'good' woman, and how everyone who thought she would walk out on her husband because she was so beautiful and much younger " were full of praises" that she turned out to be a devoted wife. When we hear what the men have to say on the same subject, it becomes clear that women are echoing male expectations.

> Gossiping with other women, going out with them, all this brings ruin to the family. Wife should save money and make sure nothing escapes outside the four walls of the house. (49-year old man, non-SC, eight years of schooling, water tank operator and mechanic.)

> I wanted my wife to be cultured (nagarigam); know how to entertain people when they come home – speak to them decently, give them something to eat. And she shouldn't answer back when the husband insists on something. (25-year old man, non-SC, seven years of schooling, cultivator and petty-trader.)

> The woman should not spend her time watching movies, dressing up glamourously glittering 'minukkikittu', and carry on with other men. (47-year old man, non-SC, no schooling, cultivator and small-time building contractor.)

Despite women's idealised portrayal of the wife's role, dissatisfaction with the status quo becomes evident as their narratives progressed.

One area of dissatisfaction was men's unwillingness to share housework and childcare. Changing objective realities have made it difficult for women to manage these tasks without help from their husbands. Where there were several women in the household earlier – the mother-in-law, the sister-in-law or co-sister, most women are now by themselves in nuclear families. They do not keep their daughters back at home to help them, like their mothers used to do, but instead, send them to school. There are also greater time pressures: water supply through taps is at particular hours; children have to be ready for school at a particular time; and husbands and they themselves may have to take a bus at a particular time to go out for work

> Even when the baby cries, he does not help me with fetching water. I think men can fetch water, cut vegetables and help manage the children. If the wife is not well, they can do all the household tasks. But he does not do. He says people will say that like a woman he is fetching water (22-year old woman, non-SC, five years of schooling, home-based).

Some women believe that men may be more willing to help at home if the women were also engaged in work outside the home.

> If I also worked alongside him, weeding or transplanting, there will be no fights. But since I am at home, when he comes back from work and I ask for any help with household tasks, he shouts "I work hard and come back, what do you mean, asking me to do this and that?" (35-year old woman, non-SC, five years of schooling, home-based.)

However, discussions with men show that this need not necessarily be true. Men believed that women's agricultural work was not really 'hard work'. Not only older men, but many men in their early twenties took pride in saying that they do nothing around the house, not even clean a 'chatti' (cooking pot) or lift a broom.

The men who 'helped' were few and far between. Their share of domestic work is limited to holding the baby when the wife cooked or fetching water when the wife was unwell. The men we spoke to made it clear that while they may 'help' when the wife could not cope, household work was not and could not be their responsibility.

Men may not change nappies just as yet, but many men do spend more time with older children – getting them ready to school, dropping them off at school, taking them to the doctor, being with them in the evenings. They were also more involved with their children's education. Several young fathers spoke of spending all their free time at home with their children rather than with male friends or in the arrack shops as their fathers used to do.

Another area of conflict between married couples is women's freedom to spend money as they wished.

> In my household everything is as my husband wishes. He thinks that if I have money in hand, I will go away to my mother's house if he shouts or something. So he wants to control. Anything I want to buy, I have to ask him for money or to buy it for me. (22-year old woman, non-SC, 11 years schooling, TINP teacher, cited above.)

> If I ask money for household expenses, a huge battle ensues.(40-year old woman, SC, no schooling, works as 'dhobi' along with her husband.)

The men, on their part, believe that women cannot be trusted to handle money responsibly.

> The woman wants sarees, imitation jewels – how can you let her take decisions about money ? The household will be in debts. (63-year old man, non-SC, four years of schooling, large landowner.)

> My wife gets annoyed when I advise her to cut down on unnecessary 'luxury' expenses on herself. Doesn't worry about how I would find the money to manage the expenses, just makes demands. (29-year old school teacher cited above.)

This 23-year old, high school educated cultivator is all praise for his wife's total financial dependency.

> She never does anything without asking me. Even when she has to buy tooth powder (euphemism for absolute essentials) she will wait for me to buy it for her.

Financial freedom can still be restricted when women are given access to their husband's income – a typical example of access without control.

He gives me all his income. But I cannot buy anything for myself unless he asks me to. He would not like it, and there will be quarrels. (40-year old woman, non-SC, no schooling, agricultural wage labourer, cited above.)

Men have a well-defined notion of what wives may be allowed to do, and the range of decisions they may be permitted to make. Women could be given certain responsibilities, and rights 'up to a point.' It appears that men discussed issues related to the children's upbringing with their wives, and consulted them on matters related to the well-being and interest of 'the family'. Women could also go out in place of the man, to attend weddings or to the market, 'because the man cannot do everything'. Here's a man's very precise definition of what his wife may and may not do.

She may buy things for cooking. As for number of children, she may suggest having fewer, but not more; because it is me who has to provide for the child. Even if I consult her about investments, I need not listen to her opinion. I don't mind if she buys her own sarees, but it must be within the budget I specify, and with my permission. What personal expenses does she have without my knowledge? She should ask me for whatever she wants. But I won't let her go to her natal family, or lend money to her people. I take her there when it is appropriate. No financial transactions with them is allowed. (29-year old school teacher cited above.)

One of most contentious issues seems to be women's freedom to go out on their own, and especially freedom to visit their natal homes. Because women gather support from their parents and brothers in the face of marital conflicts, men prefer to restrict their wives' visits to their natal home.

They say women and men are equal, but that is only in offices. At home men still dominate. Even to visit my mother in the next street, I have to ask his permission (25-year old woman, non-SC, no schooling, home-based.)
Whenever she wants to go out, I go with her. She never goes out with her relatives or women in the neighbourhood, that's the way it should be. (35-year old man, SC, four years of schooling, agricultural age labourer, has worked as construction worker in Delhi for many years before his marriage.)
One day, she got word that her uncle had died, and she had to go. I was not at home. She waited at home, crying, till I returned in the evening. Then I took her. (23-year old man, non-SC, nine years of schooling, cultivator.)

Women from some traditionally labouring but now upwardly mobile castes are finding their entry into workforce restricted by their husbands.

He says, why do you have to go to work? I am earning. We don't need your money for eating two meals a day. I say, isn't it good if both of us earn? Even if you don't find work, I could still bring in money. He gets angry when I say this. If we have conflicts, they centre mainly around this. (29-year old woman, SC-Christian, seven years of schooling, agricultural wage labourer.)

In yet another instance, the newly married wife who was working in a hosiery factory in the local town found herself playing housewife after a marrying into a village-based family. There was a tug-of-war going on, with her insisting on their moving to the town and working together in the factory, and his refusing to leave the village.

Men in this study felt that when compared to their own fathers, they were treating their wives very well, and permitting them a great deal of 'rights' ('urimai'). Giving in to women's demands for a greater say in the affairs of the home was perceived as loss of control. Several young men lamented that "the world was turning upside down"; that these days, 'women commanded and men obeyed' and that women ruled the roost. Women, on the other hand, are acutely aware of their lack of decision-making power within the household.

If I tell him, go for this job, don't go for that, he says, who are you to tell me what I should and shouldn't do ? A man who listens to a woman will never prosper. (29-year old SC-Christian woman cited above.)
All decisions in the family he alone takes, my role is restricted to cooking, kitchen (30-year old woman, non-SC, 10 years of schooling, home-based.)
We have no decision-making power in the household; they will consult us but do as they please. If what we say is at contrary to what they think, they will never take it (into account). "Is it my will and pleasure, or yours? Should I listen to a 'pottachi' "? (they would say) (38-year old woman, non-SC, five years of schooling, home-based.)

Mechanisms of Control Over Women

Non-adherence to prescribed codes of behaviour was almost always reprimanded, often with physical force (hitting and slapping). Even those women who perceived their relationships to be generally problem free spoke of being shouted at or beaten because the food was not cooked on time or was not tasty; the cow had wandered off; she had stayed for too long at the well chatting with neighbours; the child was

crying unattended, etc. The men's accounts confirm this:

> Once when I came back from work, she had not fetched water and kept it boiling and ready for my bath. So I was angry and hit her. She retorted, saying she had also just come back from work. (27-year old man, SC, five years of schooling, agricultural wage labourer.)
>
> I have beaten her many times. When she goes out without my permission; when she does not take care of my parents properly; if the food is not ready when I come back from work; when the water is not kept ready and boiling (for my bath) when I return; if the children are not kept clean and "decently" dressed. (55-year old man, non-SC, no schooling, agricultural wage labourer.)
>
> Once when I asked her to heat water for my bath, she was sitting in the neighbour's house watching TV and gossiping. I had to hit her. (25-year old man, non-SC, seven years of schooling, cultivator and business.)

Some statements make one wonder if it was not more than an issue of irritation and annoyance with a job not well done. For example, this man from the Pallar (SC) community believed in hitting his working wife as a means of keeping her subdued and under control:

> Because she comes to work alongside me, and comes back with me, there won't be much respect. She will not bow to my wishes. So one has to beat, to make her tow the line.

Another, much more powerful weapon used by men to keep women in tow is to throw aspersions on their morality. 'Sandeham' – doubts about the woman's sexual loyalty on the part of the husband, if not immediately quelled, can mean social ostracisation. In fact, while there would usually be support from parents and brothers in case of ill-treatment from husbands, once it has to do with a woman's morality, the woman loses all sympathy because she has brought dishonour to her natal family. Two women in this study had been victimised thus by their husbands and had been ostracised by their natal families.

While practically all the women had been beaten at one time or another, a third of the women were victims of violence perpetrated regularly and systematically by their husbands. This was not restricted to any particular social group and was found both among the educated and uneducated women, and among those who were gainfully employed as well as those who were housewives.

> He tortures me bit by bit. I should not answer back for anything. Should never leave the house, do all the work. If he sees me sitting even for a moment, he would say, "why are your sitting on your ass like this and getting fat?" So I have to get up and go away as soon as I see him entering the house, and keep standing or working. If not, I will be beaten. Even now I haven't got any guts. I have a son and daughter married, and still. (50-year old woman, non-SC, eight years of schooling, home-based, wife of a rich landowner.)

Most battered women stay on because they have no place to go.

> Every day passes in fear. If I dare talk back I will get beaten more. I have now learnt to keep my mouth shut. Where will I go if he throws me out ? Over the past few months I have gone close to taking poison three or four times. Then I think of the children. Who will take care of them if I die? (25-year old woman, non-SC, no schooling, petty vendor, cited above.)

And others hold on in the hope that when their children grow up, their lives will be better.

> He was much worse before, but slowly I have begun to retort. I will bring him in tow someday. When my children grow up and begin to earn, then he will know his place. (35-year old woman, non-SC, no schooling, agricultural wage labourer.)

From women's descriptions of their childhood, it appears that male violence was probably more widespread in their mothers' generation. Women who had had violent fathers or had witnessed violence in marital relationships had a strong sense of the injustice of the situation. It is important to note that women in the present study did not accept systematic male violence as their fate. They speak out against it, and have in their daily lives fought back in a number of ways, walking out on the marriage if they possibly could.

> If a husband treats you badly, I think we are not obliged to put up with it. A woman can manage on her own. The only problem is, women are afraid of what people will say. Only women who are bold have good lives, good husbands. Those who are calm, patient, they suffer most. (22-year old woman, non-SC, five years of schooling, home based.)
>
> If we behave like cowards they will treat us worse; we will lose all self-respect. We should stay put and fight back (28-year old woman, SC, five years of schooling, agricultural wage labourer.)
>
> No man should beat a woman, these days women don't allow this. For 25 years I have been separated, I have stood on my own and proved that I can survive, my daughter is happily married. (45-year old woman, non-SC, Christian, no schooling, cultivator.)

Women's Public Faces

More women in Tamil Nadu today have the opportunity for public participation, as teachers and helpers in the Tamil Nadu Integrated Nutrition Programme (TINP), as leaders and participants in local women's associations, and as members of political parties. Five of the women in this study worked in the TINP, seven were participants in local women's groups, and three were leaders of local women's wings of political parties – AIADMK, Congress and CPI(M), respectively.

Two of the women politicians had married men not chosen by their parents 'to uphold their honour'; disappointed in marriage; abused and accused of sexual immorality by their husbands. While they continued to remain married "so as not to confirm these accusations", they appear to have been freed from the yoke of proving to be a 'good' woman.

There were powerful accounts from women of incidents where they challenged their exclusion from the public space; and of feeling empowered through their participation in women's groups. It is perhaps the inspiration and strength drawn from these experiences that echo within the confines of their homes.

> The caste panchayat met to settle (case of a young woman who complained of ill-treatment from her husband) the issue. The man's people came with a lawyer from the town. Usually there are no women allowed to attend the caste panchayat. But I gathered a group of women and went to the meeting. The lawyer said, "who allowed the women to come to this meeting?" And I retorted that when women were allowed to appear in the court of law, and even act as lawyers and judges, what prevented us from attending this hearing? All the women supported me. Now more women are daring (AIADMK secretary).

IV

The picture which emerges from the experiences of women and men in this study is quite complex. On the one hand, women are aware of their right to be treated as individuals in their own right. Attitudes to women's education and employment are positive, and women are consulted in family matters more than before. On the other, negative forces such as dowry demands are on the rise, even among castes that traditionally paid bride prices. Yet again, while women have decision-making powers in some areas, they are denied fundamental autonomy, especially in the personal, or 'private' sphere.

Women can play significant roles in the community and yet not have a say in matters related to control over their sexuality and reproduction. They could be managing household finances without having the freedom to spend money on themselves or on their natal family. And while their physical mobility is not usually restricted in terms of not being able to step outside the house, they rarely have the freedom to move around without their husbands' knowledge and consent, even if it is in the company of other women.

Women are 'allowed' to move forward in areas that would help them become better mothers, wives and housekeepers. Women's education and supplementary income is in fact crucial to the modern day young men's aspirations for upward mobility through better investment in the children. However, nothing that would dislodge the male authority and cause imbalance in the current gender power equation, is tolerated. Any transgression of these 'male-determined' codes of conduct runs the risk of retaliation with physical violence and battering. A woman respondent aptly summed up the improved status of women without fundamental autonomy, in the following words: "The circle (in which women are enclosed) has grown bigger. But is still the men who draw it and decide how big it should be".

Although women are dissatisfied with their situation, they are still far away from challenging gender ideology which supports male authority and control. Their demands are more modest: they want a say in who they will marry, and how many children they will have and when. They would like greater personal freedom, and to be consulted in household matters. They expect greater consideration and benevolence from the men. For many, even this is a lot to ask for, and their expectations remain limited to freedom from violence and abuse, and financial support to the family. To conclude with the words of Thiruchandran (1997),

> Despite the fact that there were elements of protest by women which betrayed their deeply felt emotional and physical deprivation, a total rejection of the patriarchal culture manifested itself only among a very few women.

All the same, the fact that voices of protest are being heard from older and middle aged women is significant, because they may be expected to socialise their daughters to challenge the status quo. As more women begin to reject patriarchal culture, tensions and conflicts between the sexes are likely to get further accentuated.

Notes

[Data used in this paper were collected as part of the study on fertility transition in Tamil Nadu carried out under the aegis of the 'Project on Strategies and Financing for Human Development', Tiruvananthapuram, and funded by UNDP I owe a great deal to the women and men who shared their life stories with us, and to the commitment of the research team.]

1 Changes in the distribution of rural main workers in Tamil Nadu, by occupational categories, 1981 and 1991 in Table A (percentage increase).

2 Infant mortality rates in Tamil Nadu by Sex:

Year	(Per 1,000 Live Births) Male	Female	Ratio F/M
1979	106	93	0.88
1980	94	91	0 97
1981	93	89	0 96
1982	82	83	1.01
1983	88	87	0.99
1984	79	77	0.97
1985	80	83	1.04
1986	74	86	1 16
1987	70	82	1 17
1988	73	75	1.03

Source: SRS.

For example, see Petchesky, Ros and Correa, Sonia (1994), 'Reproductive and Sexual Rights: A Feminist Perspective' in Gita Sen, Adrienne Germain and Lincoln C Chen (eds), *Population Policies Reconsidered: Health, Empowerment and Rights*, Harvard Centre for Population and Development Studies, Boston.

3 The data used in this paper were collected as part of the 'Tamil Nadu – Fertility Transition Study' under the aegis of the 'Project on Strategies and Financing for Human Development', Tiruvananthapuram supported by the UNDP

4 This has been discussed, for example, in Ravindran, Sundari T K (1993), 'Users' Perspectives on Fertility Regulation Methods', *Economic and Political Weekly*, November 13-20, and in Ravindran, Sundari T K and Rao, Sumathy S, (1997) 'Is the Diaphragm a Suitable Method of Contraception for Low-Income Women' in Ravindran, Sundari TK , Berer, Marge and Cottingham Jane (eds), *Beyond Acceptability: Users' Perspectives on Contraception*, prepared for the World Health Organisation, London, Reproductive Health Matters.

TABLE A

	Total	Cultivators	Agricultural Labourers	Household Industry	Other Workers
Persons	15.14	1.73	23.23	19 86	18 58
Male	9 70	0 05	22 13	6.38	35.69
Female	24 74	19.01	24 40	35.69	34.83

Source: Computed from census figures for 1981 and 1991

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Fiscal Deficits, Expectations and Exchange Rates

Errol D'Souza

Fiscal deficits that are expected to be reversed at some unknown date in the future cause a real appreciation of the exchange rate along with an expectation of depreciation, a trade deficit, and high domestic interest rates. The expectation of depreciation will have a positive impact on investment provided a time-frame within which the deficit can be credibly reduced is charted and acted on.

STARTING with the *Economic Survey 1998-99* there has been much mention made of the second generation of reforms required to avert a possible fiscal and external sector crisis in the medium term. The *Economic Survey* had called for a sharp reduction in the fiscal deficit, containing subsidies, cuts in interest rates, and the liberalisation of trade in agriculture amongst other measures. The *Survey* had also called for a pragmatic and flexible exchange rate policy to ensure exports remain competitive and had generated uncertainty about a depreciation in the external value of the rupee. The *Survey* had stated that the "fiscal deficit is the key parameter of macro-economic policy, which has profound implications for inflation, interest rates, investment, growth, the financial system, balance of payments and last, but by no means least, overall credibility of government's macro-economic policy...It is therefore essential to put the fiscal deficit on an irreversible and unambiguously declining trend." This was followed up in the budget speech with the finance minister placing the process of revenue and fiscal deficit reduction as the top priority in his six-point strategic agenda. The subsequent monetary policy announcement by the Reserve Bank of India also factored in a possible fiscal improvement. The slashing of the repurchase rate, the trimming of the cash reserve ratio, and the cutting of the bank rate all signalled interest rate reductions in line with a projected reduction in the fiscal deficit.

Subsequently, there has been some questioning as to whether the reduced fiscal deficit that has been budgeted is due to the GDP base year having been forwarded to 1993-94 and/or due to small savings collections accruing to the states being excluded from the centre's fiscal deficit. It is true that the changed base year of GDP has given a facelift to the state of the economy and a full 1 per cent point of the revised growth of 1997-98 is attributed to the pay increases to the bureaucracy. It is also true, however, that if three-fourths of small savings go to the states as long-term loans, then, these are borrowings by the states and should not be reflected in the centre's fiscal deficit. Subtracting out the states' share of small savings from the receipts and expenditure side of the capital accounts in the budget whilst showing the centre's share of small savings as a capital receipt will definitely reduce the fiscal deficit of the centre though it will keep the combined deficit of the centre and states unchanged. However, for completeness interest receipts on account of small savings loans given to state governments should also be removed from the revenue account of the budget under the 'interest receipts, dividends, and profits' head of non-tax revenue receipts. From a perusal of the receipts budget it turns out that this has not been done and so the total receipts of the centre have been inflated which has consequences for the true value of the centre's fiscal deficit.

The fiscal accounts of the central government for the decade of the nineties have been worked out in the table by excluding the states' share of small savings loans from capital receipts and expenditures and all relevant ratios of variables to GDP are with reference to the revised 1993-94 GDP series. The fiscal deficit which was a high 6.3 per cent of GDP in 1993-94, gradually reduced till 4 per cent in 1996-97 before going up again to 4.7 per cent of GDP in 1997-98. In the year 1999-2000 it is budgeted to be 4 per cent of GDP again. This is sought to be achieved mainly through a slight reduction in the central government's expenditure programme from 14.5 per cent of GDP in 1998-99 to 14.2 per cent of GDP in 1999-2000, and an increase in direct and indirect taxes (as a result of rationalisations of union excises and the surcharges on direct and indirect taxes) from 6.2 per cent of GDP in 1998-99 to 6.6 per cent of GDP in 1999-2000. The increased revenues have been estimated on the assumption that the economy will grow by 7 per cent this fiscal year. This step up of the growth rate are expected to occur due to agricultural growth and a housing boom which will lead to industrial recovery. Also, additional savings are expected to be mobilised through the tax incentives given to equity mutual funds and the reduction in long-term capital-gains tax which is expected to revive the stock market and give a fillip to investment.

There is much uncertainty as to the efficacy of these measures. As part of the new policy in agriculture, in order to minimise leakages, funds will flow directly from the centre to the gram panchayats, grants will be conditional on states implementing reforms (for example, funds earmarked for the accelerated irrigation benefit programme will only be provided if states rationalise their water rates), and there are a number of initiatives to improve bank credit deployment to the agricultural sector (Rural Infrastructure Development Fund, Kisan Credit Cards, promotion of Self Help Groups, etc). Many of these have long-term impacts which are favourable but the immediate impact on agricultural growth is marginal. However, the real constraint to agricultural growth lies in non-price factors such as technology and infrastructure-led government investment [Desai and D'Souza 1998]. The constraints on agricultural growth lie in improving total factor productivity which is a function of agricultural research and investments in agricultural infrastructure. Hence, the measures outlined in the budget for agriculture though important, will not have the growth impact that is visualised.

In the housing sector, the interest on loans for self-occupied property has been made tax exempt up to Rs 75,000, up from Rs 30,000 earlier, housing projects under Section 80IA of the Income Tax Act have been given a tax holiday, and business investment in new housing for employees can be treated to 40 per cent depreciation unlike 20 per cent earlier. The demand for

housing is usually sensitive to interest rates. Conceptually, the rental price of housing would equal the interest rate plus a rate of depreciation times the price of a house. As houses depreciate very slowly unlike business investments, the interest rate is a large fraction of the rental cost of housing and the demand for housing investment is therefore sensitive to interest rates. Also, as with deregulation the price of housing is expected to decline, any investment now can be expected to earn a capital loss for which compensation in the form of higher rentals on housing will be necessary for investments in housing to break even. Hence, housing investment will depend more on interest rate reductions on housing loans and expected capital losses associated with deregulation of the real estate market rather than on tax exemptions. Investment in housing also usually follows an accelerator type principle and is related to the change in real income. The pick up in housing sector projects will thus be sensitive to actual income growth in the economy, expected declines in the pricing of accommodation, and the interest rates prevailing and it is unknown whether housing investments will firm up or not.

In the capital market the two tax initiatives of exempting from income tax all income from mutual funds received in the hands of investors and exemption from dividend taxes for mutual funds with more than 50 per cent investment in equity it is hoped will revive the capital markets. This does not address the major problem in reviving the capital markets, namely, lack of investor confidence. The initial euphoria of 1991-94 about stock markets has subsided as a large number of the companies floated then are no longer in existence and cannot be traced [Gupta 1998]. Also, as noted by the Shankar Acharya Committee on the Primary Market most corporates enjoy little credibility with investors which is a reason for poor demand for corporate securities. As Indian stock markets perform the role of monitoring corporate management very inefficiently, it is subjecting corporate managements to shareholder discipline that is the priority capital market reform. Ensuring good corporate governance is something that does not bother the regulatory authorities such as SEBI or the stock exchanges and so unless some other body such as the CII takes this up on a priority basis investors are not going to be drawn back to the capital market. The finance minister recognised in his budget speech that companies should "put their houses in order by following internationally accepted practices of corporate governance" but all that he has done to help this happen is to institute a national award for excellence in corporate governance. Capital market revival may not take place accordingly and that implies that this third strategic policy component may also not be successful in reviving growth in the economy.

The growth stimulants envisaged by the budget of revival of the rural sector, a package to boost housing sector activity, and getting the stock market moving through tax benefits for savings in equity will thus have a limited impact on reviving the economy. If growth does not take place as envisaged, then, the revenue receipts of the government will be affected and the fiscal deficit will balloon. From the table we can see that tax revenues are scheduled to finance 46.6 per cent of central government expenditure, up from 42.4 per cent last year. This increased revenue is going to come from union excise duties, customs, and personal income taxes. Even though the reduction in the number of excise slabs will reduce transactions costs and improve efficiency, the accompanying surcharges will dilute some of the short-run gains. Also, even when industrial growth was at its peak, as in 1995-96, union excise revenues accruing to the central government grew by just 5.1 per cent and in the previous year, 1994-95, when industrial growth was good, union excise revenues to the central government grew by 20.1 per cent. This year when there are doubts about good industrial performance they have been budgeted to grow by 24.2 per cent which is an overestimate. Also, higher direct taxes on assessees will affect the demand generation process adversely and with world trade growth declining as well as the prospects of good domestic growth being uncertain, it is unlikely that customs revenues will grow 16.6 per cent as envisaged. The last two major spikes in customs revenue collections came in 1995-96 (28.9 per cent growth) and 1996-97 (18.1 per cent growth), mainly due to the high imports that accompanied industrial growth as well as the depreciating external value of the rupee. The tax-GDP ratio of the centre from 1990-91 to 1998-99 works out to an average 6.6 per cent as against the 8.3 per cent in the eighties. As the table reveals the tax-GDP ratio has been declining in the nineties. All this points to the fiscal deficit being under pressure in the current year.

Thus, even though a reduction in the fiscal deficit has received top priority in this budget there is a lot of uncertainty as to whether and when it will materialise. It is widely known that continuing fiscal expansion cannot continue indefinitely due to the consequences of large debt accumulation and so an expectation has been generated in the economy of a fiscal correction. The uncertainty is as to when it will occur. Accordingly , to understand the impact of fiscal deficits on the economy, we need to discuss the role of expectations and how expectations of future fiscal policy have effects on aggregate demand. Expectations about the future course of fiscal policy affect demand today through adjustments in asset markets as portfolio decisions factor in the news about tomorrow's changes today. There are thus two aspects of fiscal deficits which are

ignored when discussions as to their impact effects take place and these two aspects are crucial to understanding the current trajectory of the economy. One is expectations generated by the uncertainty regarding when the fiscal deficit will be reduced. The second is that the speed of adjustment in asset markets is typically faster than the speed of adjustment in goods markets and thus fiscal actions which are anticipated to occur in the future will affect the current state of asset markets and hence affect aggregate demand even before the fiscal changes are actually implemented. The Dornbusch (1976) model is ideally suited to address these sorts of issues and we first set out the basics of this model before adapting it to the case where there is uncertainty as to when a fiscal expansion programme will be corrected.

Sticky Prices, Deficits and Exchange Rates

The Dornbusch (1976) model is the workhorse of open economy macro-economics where there is rapid asset market or interest rate and exchange rate adjustment due to perfect foresight in asset markets and sluggish price adjustment in the goods market. Since it is an open economy model, in addition to the standard factors determining domestic demand such as interest rates and income, external demand or the demand for net exports is influenced by the competitiveness of domestic relative to foreign output. Relative competitiveness can be measured by the real exchange rate, $Q = EP^*/P$, where, P (P^*) is the price of domestic (foreign) goods and E is the price of a unit of foreign currency, measured in units of the domestic currency (the rupee/dollar exchange rate). The greater is Q, the more competitive will be domestic output and so higher levels of Q would make the trade deficit smaller than would lower levels. Taking into account the competitiveness of domestic output, the goods market equilibrium condition – the IS curve – will be given by the following equation where the foreign price P^* has been set at unity and all variables except the interest rate are in logarithms and so the lower cases of the corresponding higher case letters

$$y = h(e - p) + \alpha(r - p) + g \qquad ...(1)$$

In (1), y is aggregate demand, r the interest rate on bonds, g is an index of the government's fiscal deficit, and p is the rate of inflation. The parameter h is positive whilst α is negative. The equilibrium relationship has been solved for income so that the effect of consumption expenditure has been implicitly included in the equation. Financial markets are treated as adjusting instantaneously with investors being risk neutral so that uncovered interest rate parity holds at all times.[1] This implies that expected depreciation is just great enough to offset any interest rate differential between the domestic economy and the rest of the world and the asset market equilibrium condition is:

$$r = r^* + \Delta e^e \qquad ...(2)$$

where, r^* is the exogenously given interest rate abroad and Δe^e is the expected depreciation in the value of the rupee relative to the dollar.

Following Dornbusch (1976) model the exchange rate is assumed to be at its equilibrium level only in the long-run and in the short-run it will deviate from its equilibrium level as a result of the sluggishness

Table: Trends in Revenues and Expenditures of Central Government

(*Rs crore*)

	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 (RE)	1999-2000 (BE)
Corporation tax	5335	7853	8899	10060	13822	16487	18567	20016	27050	30850
	(5.43)	(7.41)	(7.52)	(7.35)	(9.15)	(9.80)	(9.75)	(9.22)	(10.48)	(10.87)
Income tax	1250	1627	1831	1355	3468	4318	4715	3589	6182	9923
	(1.27)	(1.54)	(1.55)	(0.99)	(2.30)	(2.57)	(2.48)	(1.65)	(2.39)	(3.50)
Customs	20644	22257	23776	22193	26789	35757	42851	40193	42648	50369
	(21.01)	(21.01)	(20.09)	(16.22)	(17.73)	(21.25)	(22.51)	(18.52)	(16.52)	(17.74)
Union excise duties	14100	16017	16367	17224	21064	22176	23463	25516	28535	36357
	(14.35)	(15.12)	(13.83)	(12.59)	(13.94)	(13.18)	(12.33)	(11.76)	(11.05)	(12.81)
Total direct taxes	6903	10103	12075	12530	18409	22289	25375	27172	34606	42248
	(7.02)	(9.54)	(10.20)	(9.16)	(12.19)	(13.24)	(13.33)	(12.52)	(13.41)	(14.88)
Direct tax/GDP	1.18	1.51	1.57	1.43	1.77	1.83	1.80	1.74	1.95	2.11
Net centre's tax revenue	42978	50069	54044	53449	67454	81939	93701	95672	109537	132365
	(43.73)	(47.26)	(45.66)	(39.06)	(44.65)	(48.69)	(49.23)	(44.09)	(42.44)	(46.63)
Net centre's tax revenue/GDP	7.38	7.46	7.04	6.09	6.50	6.73	6.65	6.12	6.17	6.62
Non-tax revenues	11976	15962	20084	22004	23629	28191	32578	38229	48128	50475
	(12.19)	(15.07)	(16.97)	(16.08)	(15.64)	(16.75)	(17.12)	(17.62)	(18.65)	(17.78)
Recovery of loans	5712	6021	6356	6191	6345	6505	7540	8318	11504	11087
Disinvestment		3038	1961	-48	5078	362	380	912	9006	10000
Fiscal deficit	37606	30843	35909	55257	48558	51288	56137	73882	79949	79955
	(38.27)	(29.12)	(30.34)	(40.38)	(32.14)	(30.48)	(29.49)	(34.04)	(30.97)	(28.16)
Fiscal deficit/GDP	6.46	4.60	4.68	6.30	4.68	4.21	3.98	4.73	4.50	4.00
Central government expenditure	98272	105933	118354	136853	151064	168285	190336	217013	258124	283882
Current transfer payments	37777	42917	45847	51983	59475	69624	82323	89875	110519	120426
	(38.44)	(40.51)	(38.74)	(37.98)	(39.37)	(41.37)	(43.25)	(41.41)	(42.82)	(42.42)
Capital expenditure	24757	23642	25652	28684	28953	28433	31403	36663	39985	46896
	(25.19)	(22.32)	(21.67)	(20.96)	(19.17)	(16.90)	(16.50)	(16.89)	(15.49)	(16.52)
Consumption expenditure	35738	39374	46855	56186	62636	70228	76610	90475	107620	116560
	(36.37)	(37.17)	(39.59)	(41.06)	(41.46)	(41.73)	(40.25)	(41.69)	(41.69)	(41.06)
Central government expenditure/GDP	16.87	15.79	15.41	15.61	14.56	13.82	13.50	13.88	14.53	14.20
GDP (market prices) (1993-94 Series)	582554	670954	767898	876952	1037842	1217963	1409849	1563552	1776644	1998875

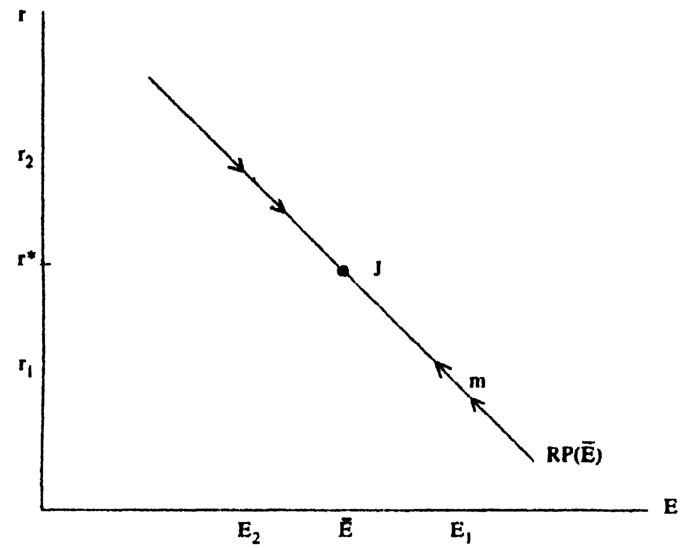
Notes: (1) Figures for GDP from 1990-91 to 1992-93 have been derived by using the scaling factor of 1.0878 to the earlier series

(2) Figures for GDP for 1998-99 and 1999-2000 have been derived from the fiscal deficit/GDP ratios estimated in the Budget Documents.

(3) Figures in brackets are percentages to total central government expenditure

Source: Budget Documents, 1999-2000.

Figure 1



with which goods prices react to a disturbance. Dornbusch argues that when the exchange rate is below its long-run equilibrium level there will be a natural presumption that its future path will carry it upward in the direction of equilibrium, rather than downward and away from equilibrium and vice versa when it is above equilibrium. Formally, this assumption implies that the expected depreciation relative to the current level of the exchange rate, $(E^e - E)/E$, will equal the gap between the equilibrium exchange rate and its actual levels, $(\bar{E} - E)/E$, raised to the power of θ, i e,

$$\frac{E^e - E}{E} = \left(\frac{\bar{E} - E}{E}\right)^{\theta}$$

Taking logarithms, $\Delta e^e = \theta(\bar{e} - e)$ ...(3)

where, θ reflects the sensitivity of market expectations to the proportionate under or overvaluation of the exchange rate. This mechanism is illustrated in Figure 1.

Suppose initially we are in equilibrium at point J, with an exchange rate of $\bar{E}$, the domestic interest rate equal to the foreign interest rate r^*, and hence with the exchange rate expected to remain unchanged. If for some reason the domestic interest rate were to fall to r_1, we know from (2) that it could only occur if agents were convinced that the rupee would appreciate against the dollar over time so as to compensate for the lower explicit interest paid on domestic securities. Hence, the rupee's value would have to be below its long-run level so as to generate the expectation of a future rupee appreciation as it moves back towards equilibrium. The system will thus settle in the short-run at a point like m where the exchange rate is E_1. Conversely, when the domestic interest rate is relatively high, the market will be anticipating a fall in the value of the rupee as otherwise domestic assets will be attractive relative to those denominated in the foreign currency. In the short-run if the domestic interest rate were to rise to r_2, the rupee will appreciate to E_2 with the expectation that over time it will return to its equilibrium level at point J. Hence, for the given long-run equilibrium exchange rate $\bar{E}$, there is a line – RP in Figure 1 – that slopes downwards from left to right which plots the feasible combinations of r and E, consistent with short-run equilibrium. Along RP, the rupee will be appreciating at points below the horizontal line through r^*, or depreciating, at points above r^*.

Deviations from the equilibrium exchange rate arise because the price level is sticky – the aggregate supply curve is horizontal in the short run. In the short run the price level is fixed due to rigidities in the goods and labour markets such as due to long-term contracts and lack of information. Thus, shocks that affect the nominal exchange rate will result in changes in the real exchange rate and will be associated with current account deficits or surpluses. Suppose the trade balance clears at the real exchange rate $\bar{Q} = EP^*/P$. Figure 2(c) plots this relationship for a given value of foreign prices, P^*. At combinations of P and E above the $\bar{Q}$ line, the rupee's real value is higher than $\bar{Q}$, so that the domestic economy is uncompetitive and hence runs a trade deficit, and vice versa below the line.

Money market equilibrium is characterised by the LM curve whose equation is:

$$m - p = \kappa y - \lambda r \qquad ...(4)$$

Finally, there is a demand adjustment equation which states that the wider the gap between demand and capacity output $\bar{y}$, the higher the rate of inflation,

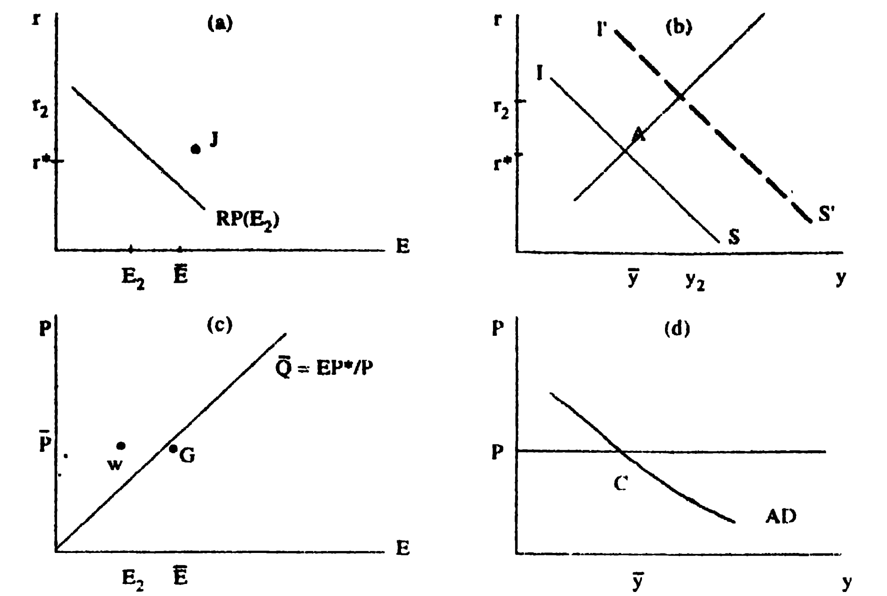
$$p = \pi(y - \bar{y}) \qquad ...(5)$$

If demand deviates from $\bar{y}$, there is a protracted change in the level of prices in the economy. The long-run equilibrium will be characterised by an equality of aggregate demand and supply so that there is no pressure on the price level and an equality of domestic and foreign interest rates so that the exchange rate is static with no expectations of appreciation or depreciation. Drawing the IS curve – equation (1) – and the LM curve – equation (4) – in Figure 2(b), and the aggregate demand and supply curves in Figure 2(d), we can see that the initial long-run equilibrium is attained at the points J, G, C, and A in Figure 2.

Now, suppose there is an expansionary fiscal policy which causes the IS curve to shift to I'S'. This increased government expenditure financed by additional borrowing is only possible at the cost of a higher interest rate given a fixed money stock and constant price level. The impact effect is to raise income to Y_2 and the interest rate to r_2. However, a higher interest rate implies an influx of funds which means an emerging excess demand for rupees and the exchange rate must appreciate. Also, as the exchange rate rises domestic goods become less attractive to foreigners and there will emerge a trade deficit.

As prices respond to excess demand the real exchange rate appreciates further, causing the trade balance to deteriorate further and the I'S' curve shifts back down to the left, pushing the interest rate some of the way back to its pre-expansion level. The long-run impact, however, is for a return to the original income-interest rate combination as given at point A. In terms of the money market, with the long-run interest rate pegged by external factors $(r = r^*)$, and the long-run capacity output given $(Y = \bar{Y})$, a fixed money stock implies a unique level of prices consistent with equilibrium given by $P = \bar{P}$. For long-run equilibrium the exchange rate must therefore have moved so as to keep the IS curve unchanged, i e, enough to offset the expansionary effect on demand of the increase in government spending. The whole of the increase in government expenditure is neutralised by the consequent equal fall in demand from the external sector of the economy – crowding out is complete. The burden of adjustment thus falls entirely on the exchange rate which appreciates by

FIGURE 2



enough so as to generate a trade deficit as great as the increase in fiscal spending that started the process off – the impact of fiscal spending on output is nil.

Given perfect foresight and that financial markets clear at all times, agents in the economy form their view as to where the exchange rate is going to end up as a result of the fiscal shock. They will judge that the long-run equilibrium exchange rate is going to be E_2. This appreciation of the exchange rate will sustain a trade deficit represented by point w in Figure 2(c) that exactly offsets the increased government spending. The long-run equilibrium exchange rate will be E_2 and the combination of r and E consistent with short-run equilibrium is given by the downward sloping RP(E_2) curve through the point (r*, E_2). The short-run equilibrium is the long-run equilibrium as well due to the price level remaining unchanged in the long-run as argued above. Hence, a permanent increase in government spending causes an immediate once and for all appreciation of the exchange rate, and complete crowding out of the increased government spending through reduced net exports. As prices do not change there are no dynamics to this system.

Reversal of Fiscal Deficits

Given this framework we now analyse the effects of an increase in government spending which is expected to be reversed at an unknown date in the future. Agents realise that large deficits cannot be expected to continue indefinitely and so expect a policy change of fiscal correction. They are uncertain, however, as to the timing of the fiscal correction. Whenever the expansionary fiscal policy is reversed, the exchange rate will depreciate, and this will result in a capital loss on domestic assets. Given equalised yields, domestic asset holders must be compensated for this prospective capital loss. This requires that the domestic interest rate no longer exceeds the foreign interest rate by just the expected rate of exchange rate depreciation. The domestic-foreign interest rate gap now equals the rate of exchange rate depreciation plus the capital loss which would occur when fiscal correction occurs, multiplied by the probability of fiscal correction. Let the probability of fiscal correction be δ Then,[2] (2) will be replaced by

$$r = r^* + \Delta e^e + \delta(\tilde{e}_t - e_t) \qquad \ldots(6)$$

where, $\tilde{e}_t$ is the exchange rate which would be reached instantaneously when fiscal correction occurs.[3] $\tilde{e}_t$ is not a long-run exchange rate but rather the rate to which the exchange rate jumps following a policy reversal.

The impact of a fiscal expansion that is expected to be reversed at some unknown date in the future can now be spelt out. The fiscal expansion causes the appreciation of the exchange rate and the domestic interest rate rises as well. The rise in the interest rate requires the price level to rise so as to equilibrate the money market. The excess demand causes the price to rise and as a result, further real appreciation occurs. Hence, there is persistent exchange rate appreciation. However, given the possibility of a fiscal policy reversal at some unknown date in the future there is an anticipation of a depreciation and so the exchange rate does not appreciate as much as it would have had there been a permanent increase in spending. With a policy reversal the exchange rate must depreciate eventually to Ē. Hence, the relevant short-run (r, E) relationship will be the RP(Ē) curve parallel to RP(E_2) and passing through the point J. This would imply that for $r = r_2$, the relevant short-run exchange rate will lie somewhere in between Ē and E_2, i e, the exchange rate appreciation is not as pronounced as in the permanent government spending case due to the uncertainty regarding policy reversal.

An appreciation of the exchange rate and a deterioration of the terms of trade as domestic prices rise together ensure a trade account deficit in the temporary equilibrium where the government deficit has been raised. In response to the fiscal expansion output would initially rise but as domestic prices rise it would revert back to its original level and the trade deficit will thus become larger or smaller over time as prices adjust. The uncertainty about future fiscal correction thus results in the simultaneous existence of a sustained exchange rate appreciation and an expectation of depreciation. It also results in high domestic interest rates and a trade account deficit. The mechanism outlined here is able to explain how it is possible to have a phenomenon of exchange rate overvaluation and expected depreciation. The phenomenon is not due to any exchange rate management on the part of the central bank but due to uncertainty regarding the time path of reducing a large fiscal deficit.

The expectation that there will be a future fiscal contraction as well as depreciation of the exchange rate implies two things – net exports will receive a stimulus (other things such as the growth of global GDP unchanged), and a perception that interest rates are going to decline. With the anticipation of lower interest rates and a decline in the cost of capital in the future there is a spur to private spending on investment. The expectations effect brings forward the future expected interest rate decline to affect investment spending today. Even though output will decline in response to a decline in government expenditure, aggregate demand will receive a stimulus from a depreciation of the real exchange rate. The increased net exports will get reflected in a rise in profits and that in turn will affect investment positively. Hence, we can expect to see private investment spending increase today due to an anticipation of a declining cost of capital and an increase in profits earned in the external sector. It is quite possible that the capital goods sector which is the

only industrial sub-sector to show respectable growth currently is responding to these effects. For a continuation of this performance interest rates must fall as expected and the fiscal deficit reduced so that private corporate investment continues to expand.

There has been much discussion as to how the rupee has been overvalued and that a depreciation would be good for exports. It is often pointed out that the cumulative depreciation of the rupee since the onset of the east Asian crisis in July 1997 has been about 15.7 per cent by end January, 1999, as against a depreciation of 73.4 per cent of the Indonesian rupiah, 33.6 per cent of the Malaysian ringgit, 24.4 per cent of the S Korean won, and 29.9 per cent of the Thai baht. Such large depreciation of these other currencies it is argued has affected the price competitiveness of our exports. However, tampering with the exchange rate and steering a depreciation will be a very wrong policy move at this time. When the fiscal deficit in India is high compared to that in east Asian countries, it is to be expected on the basis of the arguments outlined above that the Indian exchange rate will be overvalued relative to other currencies. Instead of calling for a depreciation of the exchange rate, a clearly spelt out and credibly implemented programme of fiscal correction is the appropriate policy change that must be aimed for. As liberalisation of the economy has proceeded, the interest rate and exchange rate channels have become active in the macro-economic transmission process and policy must be sensitive to this emerging scenario.

Conclusions

The fiscal deficit has attracted a lot attention in economic policy-making. Whether small savings loans to state governments are included whilst measuring the deficit or not, most analysts are of the view that the deficit is large and needs to be reduced. Given the declining tax revenue-GDP ratios, the paucity of funds raised through disinvestment, and the growing government expenditures on administration, subsidies, and interest payments, there is a lot of uncertainty about when it will be possible to make the borrowings arising from the deficit sustainable.

A fiscal deficit which will be reduced at some unknown date in the future causes a real appreciation of the exchange rate with an expectation of depreciation, a trade account deficit, and high domestic interest rates relative to those prevailing abroad. As a result of the exchange rate appreciation net exports decline. It is therefore important and about time that policy clearly spells out the method of reducing the fiscal deficit and a time-frame within which it will be attempted. This obviously calls for expenditure management in a big way. This obviously calls for expenditure management in a big way. The role of the Expenditure Reforms Commission that this budget proposes to set up is therefore central to successful economic policy-making. Such a commission will face a very difficult task as when some expenditure is to be reduced some interest that is represented in the agenda of a political party will be affected and that will take it hard to attain a consensus. With a coalition of political parties sharing power the veto is a credible blocking strategy when some interest is threatened and that makes expenditure compression difficult. It is much easier to have consensus on taxation especially when tax rates are to be reduced as in such a situation everyone gains in absolute terms.

The gains to establishing a course of fiscal reduction is that one a course for fiscal correction is charted and it is adhered to, it will contribute to the stability of expectations in the economy and impinge on interest rates and exchange rates in a more predictable manner and allow a more efficient level of economic growth.

Notes

1 The model's assumption of perfect capital mobility can be swapped for one of imperfect capital mobility such as characterises semi-open economies [Edwards and Khan 1985] This added realism does no damage to the conclusions and so only the simpler case is discussed here of perfect capital mobility.

2 Formally, let the instantaneous probability of a fiscal correction be δ. Let $\tilde{e}_{t+h}$ denote the exchange rate at time t + h if a fiscal correction occurs during the interval h. Then, given the exogenous probability δ of a regime change in fiscal policy, the expected rate of change of the exchange rate over the interval of length h is $(e_{t+h} - e_t)(1 - \delta h) + (\tilde{e}_{t+h} - e_t)\delta h$. If we make the time interval instantaneous, i e, dividing throughout by h and taking the limit as $h \to 0$, then, this expression for the interest rate differential reduces to that given in equation (6).

3 The value of $\tilde{e}_t$ is given by the solution for the exchange rate that will put the system on the saddlepath for a given price level and for $g = 0$.

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Emerging Patterns of Urban Growth in India

Annapurna Shaw

A study of investment in India's metropolitan cities (cities with million-plus population) and their neighbourhoods during the nineties indicates the emergence of urban cores of high investment and the virtual bypassing of the remaining metropolises by liberalisation-fostered growth. As the growth patterns of the 23 metropolises tend to reflect the state of the economies of their respective regions, this bespeaks the widening of interregional economic disparities.

FOR much of this century the Indian urban system was dominated by four metropolitan cities: Mumbai (Bombay), Delhi, Calcutta and Chennai (Madras). Each served as a regional capital and acted as a central place for a vast rural hinterland. Since the sixties, these four cities have grown both in population and in the size of their metropolitan areas. While their regional importance continues unabated, they have now to contend with the emergence of other centres of urban growth; smaller metropolitan cities such as Bangalore, Hyderabad and Pune. The opening up of the Indian economy since 1991 has stimulated the development of such cities and led to the creation of new hubs of urban growth centred on the manufacture of computer software, electronics and related sunrise industries. It has also had a differential impact on the four dominant cities of the past.

While Delhi remains important nationally as the seat of administrative power, Mumbai, the country's financial centre, has experienced rapid growth and is aspiring to become a global city. The processes of centralisation and concentration of finance and related services in Mumbai are discernible and they are leading to a restructuring of land uses and jobs in its business district. Calcutta and Chennai continue to remain cities of the first rank in their regional contexts, but nationally the importance of the former as a centre of business and industry is falling. Calcutta in fact has experienced a continued industrial decline since the 1960s and the movement outwards of major private sector companies continues.

The changing fortunes of these cities make more sense when viewed in a regional context. Each of the four largest Indian cities is located in a different region of the country. These regions saw differential rates of growth during the 40 years prior to economic liberalisation in 1991, but the opening up process since then has clearly heightened the pace of differentiation. Liberalisation has affected regions directly through the reduced involvement of the central government in the economic management of the states. The states are now freer to pursue their own economic goals, and some states are proving to be far better at this than others.

The result is that the distance between the states doing well and those doing badly has been widening since 1991, and the weak states are being left far behind. Metropolitan cities located in weak states/regions have inevitably grown slower than those in the more dynamic regions. Calcutta's location in the eastern region, the poorest part of the country, can explain in part its lack of attractiveness to new business and investment.

In this paper, I examine the newly emerging patterns of urban growth in India by focusing on the major investment projects under implementation in the largest metropolitan cities and the regions surrounding them. The size and sectoral break-up of these investments, their source - central government, state government, private Indian companies or foreign companies – and the location of the projects are good indicators of the extent of economic globalisation. They reveal the types of activities gaining ascendance in India's metropolitan economies since liberalisation began, the regions of the country getting a disproportionate share of the new activities, and the extent of local and national control over local economic development.

Existing theory on globalisation as put forward by Sassen (1994) suggests a renewed role for some of the world's major cities as sites for finance and associated producer services. These cities have experienced continued concentration of economic ownership and control and have become global cities, servicing the globe rather than their geographical hinterlands or the nation states in which they are located. Alongside are vast territories and many important manufacturing centres and port cities that have lost functions and are in decline. These developments are leading to new geographies of centrality and marginality common now to both the developed and the developing countries. The newly emerging patterns of urban growth in India seem to confirm Sassen's theory.

Since these patterns cannot be fully understood unless placed in a regional context, in the first part of the paper regional development policy and its consequences for the regions of India are briefly discussed. Then I consider some of the demographic, economic and social changes that are starting to characterise India's largest cities. Against this background, the investment patterns of some of these cities are presented and their implications discussed.

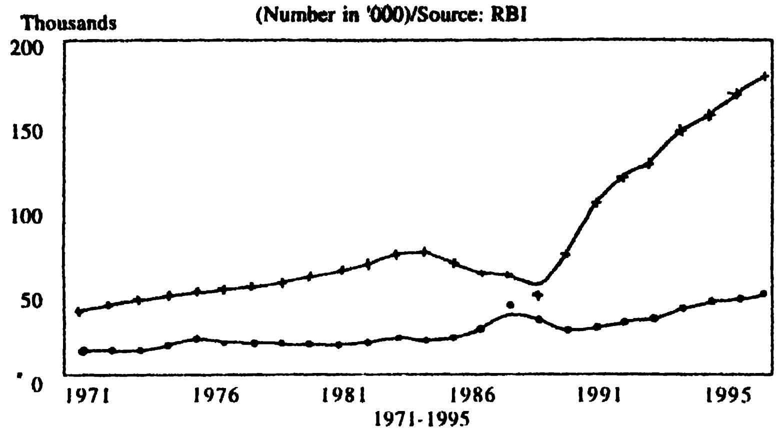
Regional Development in India in the 1990s

India's experience with regional development since independence has been in many ways similar to the experience of countries such as Brazil, Japan and South Korea [Markusen 1994]. Since second world war, in each of these countries efforts had been made to complement industrial policies with regional policies in order to better distribute national income. For this purpose, in the sixties and seventies these countries invested in smaller cities and underdeveloped regions.

The compatibility between industrial and regional policies, however, has weakened considerably in recent decades because of the shift to high technology, which strongly favours major urban areas and has therefore undermined earlier efforts at interregional equity and stability. Markusen observes: "The current commitment to high technology, emphasising innovation and human capital, is hardly compatible with decentralisation" (1994, 289). There is thus growing tension between industrial policy and regional policy, and national governments are increasingly favouring industrial policy, leaving the development of regions to local and provincial governments.

This pattern holds true for India as well. Since the Industrial Policy Resolution of 1956 until the New Economic Policy of 1991, the central government actively promoted an industrial policy that had a strong regional component. In fact, the

FIGURE 1: CHEQUE CLEARANCE AT CALCUTTA AND MUMBAI
(Number in '000)/Source: RBI



dispersal of industry through the development of a small-scale sector was one of the four major planks on which post-independence industrial policy rested [Ahluwalia 1991].

In addition, the central government played a major role in balancing regional disparities through its public enterprise location policy. By locating major steel plants, mineral extraction facilities and petroleum refineries in industrially backward regions under the early plans, it attempted to raise industrial output from these areas. While the location of public sector investment was not free from regional political pressure, which often resulted in the choice of technically sub-optimal locations [Das 1997] or relatively developed regions, such a policy did raise industrial production in states such as Madhya Pradesh, Bihar and Orissa, where there were very few industries in 1947. In fact, interregional disparities in terms of industrial employment and output fell up till the mid-seventies, particularly in the case of the large factory or the 'census sector' [Mohan et al 1992].

But this commitment to regional development became more diluted after the mid-seventies, when major public sector chemical plants were located in the western region, already quite developed industrially. Between 1972-73 and 1983-84, the contribution of Gujarat and Maharashtra, to the country's industrial output increased from 31.83 per cent to 35.68 per cent. These two states, along with the green revolution states of Punjab and Haryana and small states such as Delhi and Goa, have remained the most developed in the country.

Studies based on more recent data indicate that differences in state incomes have widened since the eighties, and India's states are diverging rather than converging in terms of growth [Ghosh et al 1998; Baru and Chowdhury 1998].[1] Much of this increase has been due to the inflow of private sector investment in small pockets of the country complemented by the location of key public sector infrastructure in these same areas.

At the same time, renewed attention has been focused on the largest cities as engines of economic growth [Shaw 1996]. As in the rest of Asia, there has been a subtle shift in urban policy in the eighties and the nineties in favour of the large city [Rondenelli 1990]. In 1991 the megacities project, funded largely by the central government, was launched to upgrade the infrastructure of Mumbai, Chennai and Calcutta [Chakraborty 1996]. Hyderabad and Bangalore were later added to the list. Delhi, as part of the National Capital Region, has had separate urban development funds. Moreover, the New Economic Policy of 1991 has made it easier to locate non-polluting industry in the large city and its environs.

However, all large cities have not been equally attractive for investment. How these cities have fared or are faring has been influenced to a great extent by their regional locations. Regional investment patterns since the opening-up process began have reinforced the existing structure of regional disparities, which favoured the already more developed capital region centred on Delhi and the western and southern parts of the country.

GROWTH OF INDIA'S MAJOR CITIES SINCE INDEPENDENCE

In 1901, India had only one city with a population of over a million: Calcutta, the administrative capital of the British Raj until 1911. By 1921, Mumbai's population had exceeded a million and for the next 25 years and more these two port cities with strong industrial bases remained the only million-plus cities in the country. Delhi, which became the administrative capital after 1911, joined this league with the huge influx of refugees in the wake of partition. Its population in 1951 exceeded a million and Delhi has since then been one of India's most rapidly growing cities. The importance of this ancient city, that had served as a capital for many earlier empires has continued to revolve around its administrative functions. Delhi is distinctly different from the old ports, which also served as major manufacturing centres during colonial times.

Chennai (Madras), an old city with a port, and Hyderabad, had also come to have million-plus populations by 1951.

Since 1951, with the gradual integration of the national economy, the locus of rapid urban growth has begun to shift to other parts of the country, and according to the 1991 Census the country now has 23 cities with a population of over a million. These 23 cities account for over one-third of the country's urban population and one-twelfth of its total population (see Map). Though these large cities are scattered among all the major regions of the country, they are more concentrated in the western and southern states. As the focus of economic growth has slowly shifted towards these regions, their urban populations have risen and so has the number of million-plus cities. Table 1 gives the details of metropolitan city growth in the different regions of India.

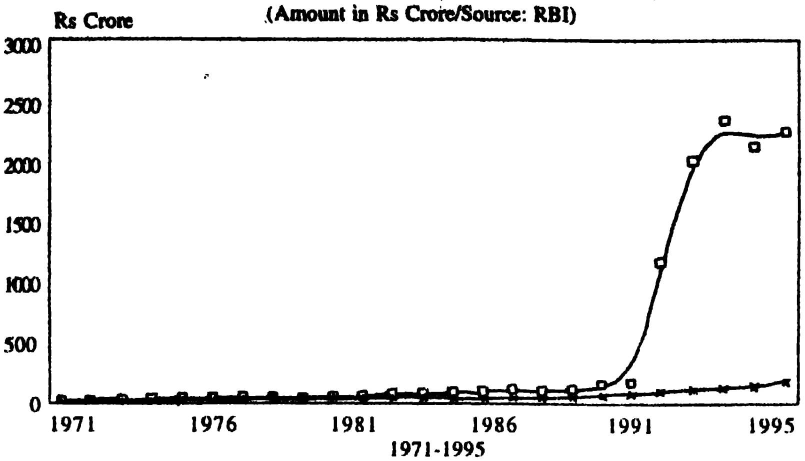
Table 1 clearly indicates the slow growth of the two metropolitan cities of the eastern region – Calcutta and Patna – *vis-a-vis* their counterparts in other regions. It also indicates that the north-eastern region has no very large city. By and large, the growth patterns of the 23 metropolitan cities, when averaged for the region, reflect quite closely the state of the regional economies in which they are located. When examined individually, they indicate that

TABLE 1: GROWTH OF METROPOLITAN CITIES BY REGION (1981-91)

Region	Number of Metropolitan Cities*	Av Pop Growth Rate Per Annum (Per Cent)
Southern	7	4.11
Western	5	4.21
Northern (incl Delhi)	3	5.40
North-central	3	4.01
Central	3	4.69
Eastern	2	1.91
North eastern	0	-
India Total	23	

Note: * a city with a population above one million.
Source: Census of India, 1991 (Bose 1993).

FIGURE 2: CHEQUE CLEARANCE AT CALCUTTA AND MUMBAI
(Amount in Rs Crore/Source: RBI)



(C and D Amount in Calcutta and Mumbai)

city economies tied to older industries such as cotton textiles, jute manufacturing and metal-based industries are unable to remain dynamic unless they have become export-oriented or have diversified into newer sectors.

Taking 1951 as the base (100) and examining growth up to 1991 indicates slower growth over much of the east and parts of the northern region, with cities such as Calcutta, Patna, Kanpur and Varanasi having slowed down. In fact, Calcutta with a growth rate of 1.8 per cent per annum between 1981 and 1991 has witnessed the slowest growth of all the 23 metropolitan cities. Mumbai overtook it as India's largest city in 1991. While large cities in the western region have generally grown fast, even here a textile-based city such as Ahmedabad has grown relatively slowly at 2.8 per cent per annum. Growth has been much faster in such towns based on the manufacture of petroleum products and chemicals as Vadodara and Surat, which grew at 4.2 per cent and 6.4 per cent per annum, respectively during 1981-91 [Bose 1993].

In the south, Chennai and the textile-based cities of Coimbatore and Madurai grew relatively slowly during that decade at 2.5 per cent, 2.3 per cent and 2.0 per cent per annum, respectively. In contrast Vishakapatnam, with its petroleum-based industries, and Hyderabad, with its administrative-cum-service functions and now a rising software industry, grew at 7.4 per cent and 6.7 per cent per annum, respectively.

DECENTRALISATION AND CENTRALISATION IN INDIA'S LARGEST CITIES

These two terms as used in Sassen (1994) refer to processes of change cities have been experiencing in the last two decades with the global shift from industrial to post-industrial service and information-based activities as the dominant economic sectors. While decentralisation refers to the shift in population and jobs from the central areas of the city to the suburbs, centralisation refers to the increasing concentration of certain types of activities already present in the city in well-defined locales or 'districts'.

Post-independence development in India has not only led to a proliferation of large cities but together with the global economic shift, it has also affected the economic structure of the largest cities. Aggregate data on urban areas as a whole indicate a gradual decline in the percentage of male workers (usual status) engaged in manufacturing from 27 per cent in 1983 to 23.6 per cent in 1993-94. For female workers (usual status), the decline was from 26 per cent in 1983 to 23.6 per cent in 1993-94 [Deshpande and Deshpande 1998]. Over the same period, the percentage of male workers (usual status) engaged in the services sector has increased from 24.8 per cent to 26.4 per cent, the increase for women workers (usual status) being from 31.4 per cent to 38.8 per cent. Here 'services' has been defined to include finance, insurance and business services and all other services, including community and social services.

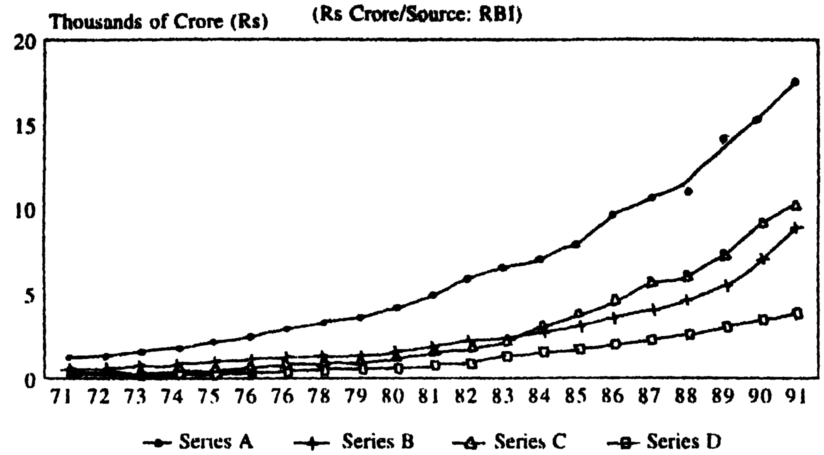
What the aggregate data indicate quite clearly are that increase in banking and finance activity and the growth of the service sector in general has come side by side with a decline in manufacturing jobs. For some of the largest cities this process started much earlier: in the case of Calcutta, the decline in the jute manufacturing industry and industrial decline in general dates back to the sixties. However, the process has become much more pervasive since the early eighties, as the data on specific cities indicate. Between 1981 and 1991, the numbers of factory workers in Mumbai declined from 6,04,000 to 4,47,000 [d'Monte 1996], and Ahmedabad lost 50,000 mill jobs between 1983-84 and 1995 [Roy Chowdhury 1996]. In the West Bengal industrial belt, largely made up of the Calcutta Metropolitan Area, 46,000 have lost jobs as 14 jute mills remain closed since the early nineties (*The Telegraph*, July 13, 1996).

TABLE 2: INVESTMENT UNDER IMPLEMENTATION IN URBAN CORE AREAS

UA	1991 Population (Millions)	Investment (Rs Crore)	Adjoining Districts	Investment (Rs Crore)	Total (Rs Crore)
Western Region: Ahmedabad-Mumbai-Pune corridor					
Ahmedabad	3 3	1,386	–	–	1,386
Surat	1.5	2,028	–	–	2,028
Vadodara	1.1	2,835	-	–	2,835
Mumbai	12.6	4,084	Thane, Raigad	16,844	20,988
Pune	2.5	5,314	–	–	5,314
Total					32,551
The Southern Hubs of Growth					
Chennai	5 4	2,075	Chengai–Ana	13,505	15,580
Bangalore	4 1	3,019	Bangalore R	1,933	4,952
Hyderabad	3.1	2,167	Rangareddy	200	2,367
Vishakapatnam	1 1	8,336	–	–	8,336
Kochi	1 1	1,199	Ernakulam	2,505	3,704
Coimbatore	1.1	244	–	–	244
Madurai		80	–	–	80
Total					35,263
The Northern Region					
Delhi	8 4	757	Gurgaon, Faridabad, Ghaziabad	8,555	9,312
Ludhiana	1.0	55	–	–	55
Jaipur	1.5	657	–	–	657
Total					10,024

Note: UA: Urban Agglomeration as per the 1991 Census Population of UAs in millions.
Sources: Census of India 1991, Series 1, paper 1 of 1992, Vols 1 and 2, 'Final Population Totals'; Centre for Monitoring Indian Economy, *Survey of Investment Projects*, August 1998.

Figure 3: Cheque Amount by Cities
(Rs Crore/Source: RBI)



(A: Mumbai, B: Calcutta, C: Delhi, D: Chennai)

The decline of blue-collar industry in the core of the city has been accompanied by a decline in population as well, but losses in jobs and population by the core have been largely offset by an increase in both in the metropolitan fringes. Mumbai is perhaps the best example of this process of decentralisation. In 1961, the core of the city (Bombay Island) had a population of 2.7 million, or 65.8 per cent of Greater Bombay's total population of 4.1 million. In 1991, Bombay Island's population of 3.3 million was only 33 per cent of the Greater Bombay total of 9.9 million. Similarly, the population of the area within jurisdiction of the Calcutta Municipal Corporation (CMC), has been growing very slowly in relation to that of the Calcutta Urban Agglomeration, which is made up of a string of towns extending from the city and located on both sides of the Hoogly River. In 1921 Calcutta city with 1.05 million people, accounted for 47 per cent of the urban agglomeration's population of 2.25 million. In 1991, with 4.4 million people the CMC area accounted for 39.9 per cent of the population of 11.02 million of the urban agglomeration (Census 1991).

In part the decentralisation of population has been the outcome of planning: the development of industry in the core has been discouraged through restrictive legislation dating back to the seventies. At the same time, new sites within the greater metropolitan area have been selectively developed by the government to accommodate the shifting of population and economic activities and to reduce congestion in the built-up area. Navi Mumbai in the Mumbai metropolitan region and Bidhan Nagar (Salt Lake) in the Calcutta metropolitan region are examples [Shaw 1995]. The shifting of the wholesale vegetable market from Sabzi Mandi in the heart of Bombay Island to New Bombay, followed by the shifting of other commodity markets such as those for onions, fruits and steel has relieved congestion and created new spaces within the core of the old city.

Since the nineties, several cities have used the courts to remove polluting industries from the core to other locations, mainly the fringes. Witness, for instance, the Delhi High Court's order on hazardous small-scale industries within the capital and Calcutta's attempts to move its leather industry out of the corporation area. To some extent, however, decentralisation has been market-driven – high land costs pushing many firms outwards. India's largest metropolitan areas are thus becoming increasingly polynuclear, with land values rising at each emerging centre within metropolitan region.

As far the process of centralisation, the aggregate data do indicate a growth in all kinds of services within urban areas between 1983 and 1993-94. But this growth is occurring in the core of the metropolitan area or its fringes can be discerned only from city-level data.

On the basis of information gleamed from secondary sources, I briefly discuss some of the emerging trends in centralisation, taking Mumbai as an example. This city has been one of India's most studied places and continues to attract attention as India's only emerging global city [Harris 1978; Kosambi 1988; Dossal 199?; Patel and Thorner 1995]. In comparison with the pace at which the restructuring of jobs occurred in global capitals such as New York and London, Mumbai's pace has been slow nevertheless, changes are occurring in the Indian city's economic structure and its social geography with the shifting of its textile industry outwards and the centralisation of other activities.

Two trends mark the centralisation process here: the increasing importance of finance in Mumbai's economy and the growing specialisation in certain types of manufacturing and services activities. Already by the late sixties, Mumbai had emerged as India's financial capital, having located within it the country's largest stock exchange and the headquarters of the Reserve Bank of India, the Life Insurance Corporation of India, the Industrial and Commercial Investment Corporation of India, the Industrial Development Bank of India, the Unit Trust of India, and the Industrial Reconstruction Bank of India.

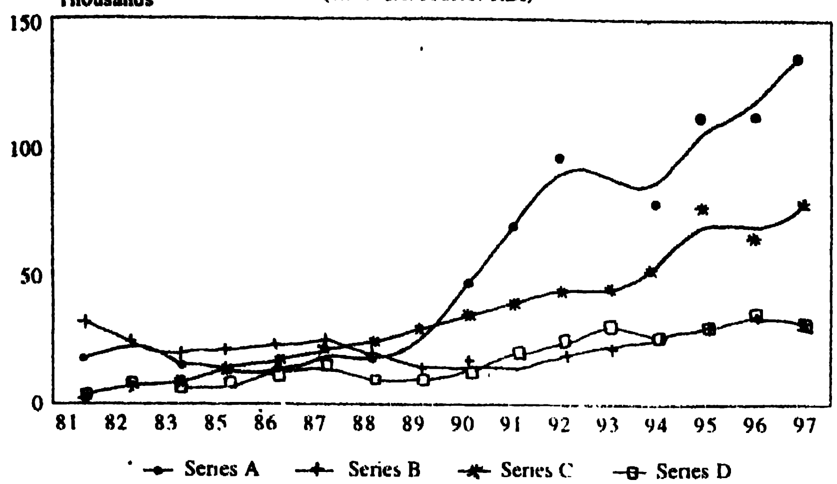
This core of activities has attracted numerous other banks, both national and foreign. Almost all major banks have their headquarters in Mumbai so much so that 70 per cent of India's bank deposits had come to be held by banks with headquarters in that city by 1972 [Harris 1978:17]. The volume of banking transactions here is thus many times larger than that in any other Indian city, and Mumbai's supremacy has increased further in recent decades.

In 1965-66 Mumbai accounted for 35 per cent of the value of total cheque clearances in India and for about 32 per cent of the total number of such clearances [RBI 1975-76:64]. After 1991, Mumbai's share of the value of total cheque clearances has risen to over 50 per cent [RBI 1995-96:106]. Comparing cheque clearances in Calcutta and Mumbai, we find that in 1970-71, the number of cheques cleared in Calcutta was only 35 per cent of Mumbai's number and the total amount was only 67 per cent of Mumbai's. By 1993-94, the number of cheques cleared in Calcutta had dropped to 28 per cent of Mumbai's, and the amount had fallen sharply to just 7 per cent of Mumbai's [Government of West Bengal 1995-96:156].

As indicated in Figures 1 and 2, there has been a rapid increase in the number of cheques cleared and the quantity of money involved in Mumbai's banks *vis-a-vis* Calcutta's after 1990-91, mainly due to the entry of foreign financial institutions. This is also brought out in Figures 3 and 4, which show comparative data on the value of cheque clearances and the value of telegraphic transfers of money issued by banks in the four largest Indian cities.

What becomes clear from the above figures is that the process of financial deregulation, which is still under way in India, has strengthened the centralisation of financial activities in Mumbai. The control function of Mumbai has also been strengthened since the nineties with the

FIGURE 4: TELEGRAPHIC TRANSFERS (ISSUED)
(Rs Crore/Source: RBI)



(A: Mumbai, B: Calcutta, C: Delhi, D: Chennai)

Securities and Exchange Board of India (SEBI), the autonomous body created to regulate the capital market, being located in that city. During the nineties, moreover, a second stock exchange (the National Stock Exchange) has come to be located in Mumbai.

Attempts were made during the seventies and eighties to disperse some of the public sector financial institutions to other parts of the metropolitan region such as Navi Mumbai. However, agglomeration economies continued to be very strong for this sector, and financial institutions, headquarter functions remain largely concentrated in the southern tip of Mumbai Island. Recently, certain departments of banking and finance institutions that need more space have started to move to central Mumbai and suburbs such as Bandra and Santa Cruz. Thus, the early nineties saw the shifting of three departments of Standard Chartered Bank from its head office in south Mumbai to Lower Parel, which is just eight km away from the downtown area and 70 per cent cheaper than the suburbs [Baria 1998].

The seventies and the eighties witnessed gradual decline in Mumbai's cotton textile industries and the loss of over 1,00,000 jobs after the strike of 1982-83 [Bhattacherjee 1988]. The period also saw a growth in petrochemical industries and in such items as rubber, plastics, oil and oil products [Harris 1996:50]. In the nineties a more spectacular transformation is occurring in 'Girangaon' in central Mumbai.

For the last hundred years this area of about 280 hectares was occupied by the cotton mills, their yards and worker tenements or 'chawls' [d'Monte 1998]. As the land occupied by closed mills is slowly entering the market, some of the old mills are being renovated for use by banks, publishing houses, advertising agencies and telecom services [Baria 1998]. The former Shree Ram Mills houses the Sakshi Art Gallery and Magnasound, a producer of video music, has an office in the Lakshmi Mills compound. High rise apartments with names such as Phoenix Towers and Falcons Castle are now a part of the skyline along with the chimneys of the old mills. Trendy restaurants are being opened for the new class of people entering an area that for decades had been the home of millhands.

This slow gentrification process has long been resisted by the workers, but to no avail. The government initially had plans to redevelop an area of approximately 5,67,718 sq metres, owned by the mills of the public-sector National Textile Corporation (NTC), in a way that would preserve the historic character of the locality, provide for open spaces and minimise the hardships of transition for the workers living there. According to observers these plans have so far proved to be insincere [d'Monte 1998]. The mill lands keep entering the market on a piece-meal basis. Their subsequent uses are market-driven.

CHANGING SOCIAL GEOGRAPHY OF THE FORMAL CITY

The demographic and economic changes discussed above have affected primarily the 'formal city' or the built-up portions of the city utilised predominantly for formal-sector activities. Such areas would include the downtown area, the main commercial and shopping areas, upper and middle class residential neighbourhoods, premises for public-sector activities and housing, and all the amenities and public goods provided by the state in such areas. As the economic reform agenda is becoming more firmly rooted and globalisation is accepted as an unavoidable reality, there is less official toleration of the informal sector in the formal city.

In a typical Indian metropolis the informal sector is all-pervasive, operating side by side with the high-rise apartments of the rich, and in the downtown area besisde prominent public buildings [Shaw 1985]. Since the early nineties, competition among India's regions and cities to attract investment, national and international, has been leading to actions that aim at differentiating between the two sectors and creating modernised and sanitised enclaves within the existing city. These enclaves, replete with five-star hotels and fine restaurants and shopping, would be suitable for Indian corporate managers and their multinational counterparts.

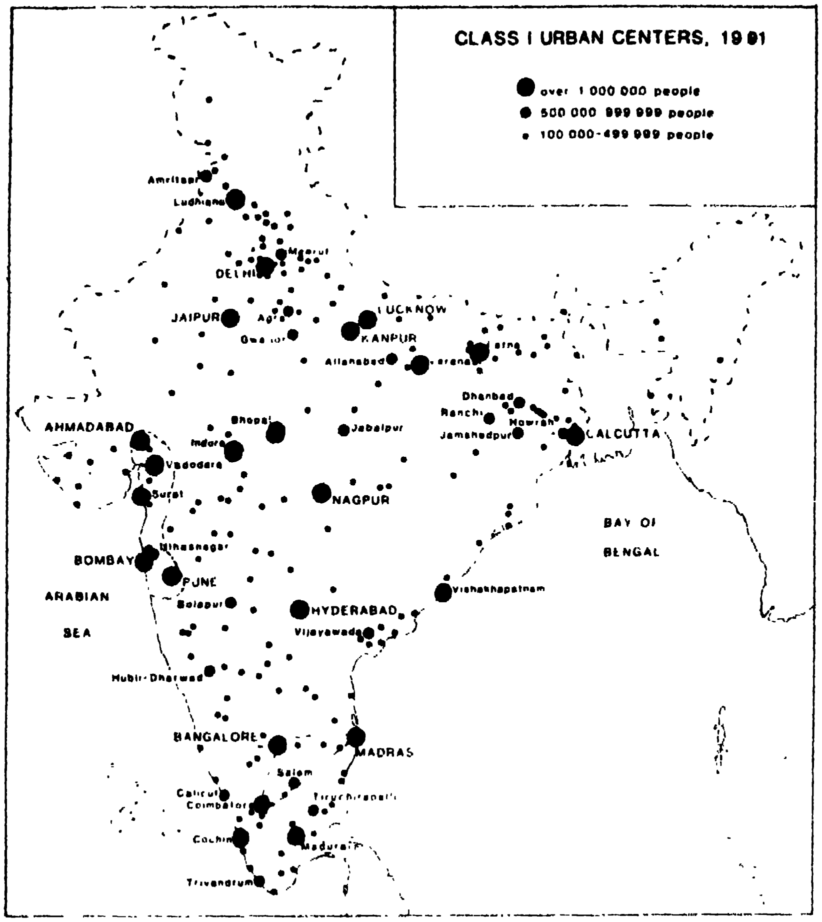
In addition, the downtown would need to be made clean and efficient. To facilitate faster movement of traffic, there have

TABLE 3. INVESTMENT UNDER IMPLEMENTATION IN URBAN PERIPHERY

UA	1991 Population (Millions)	Investment (Rs Crore)	Adjoining Districts	Investment (Rs Crore)	Total Investment (Rs Crore)
The Eastern Region					
Calcutta	11.0	1,758	S 24-Parganas, N 24-Pargans, Haora, Hugli	2,771	4,529
Patna	1.1	652	-	-	652
Total					5,049
The Northern-Central Region					
Varanasi	1.0	123	–	–	123
Lucknow	1.7	15	-	-	15
Kanpur	2.0	484	–	-	484
Total					622
The Central Region					
Bhopal	1.3	19	-	–	19
Indore	1.1	119	–	–	119
Nagpur	1.7	1,592	–	–	1,592
Total					1,730

Note: UA: Urban Agglomeration Population of UAs in millions.
Sources: Census of India 1991, Series 1, paper 1 of 1992, Vols 1 and 2, 'Final Population Totals'; Centre for Monitoring Indian Economy, *Survey of Investment Projects*, August 1998.

Map



been repeated drives to rid the streets of hawkers, roadside sellers and other occupiers of public space in cities such as Calcutta and Mumbai. Hyderabad too has recently begun to clean up to make a good impression on potential investors. In Calcutta, in spite of massive efforts by the civic authorities since December 1996, hawkers continue to remain active. The government finally struck a compromise by allowing them on all streets except 21 major arteries, the aim being to keep them out of the core of the formal city. These cleaning drives have been welcomed by the upper and middle classes, who have seen them as beneficial and as a regaining of lost space [Shaw 1997].

They are reminiscent of the attempts that several city governments in south-east Asia made in the seventies to make their cities modern and appealing to multinationals [Drakkakis-Smith 1989].

There is another type of action. It is typified by the closure of 168 'hazardous' factories in Delhi following a Supreme Court order passed in July 1996 (*Economic and Political Weekly* 1997). About 50,000 workers have lost their jobs and have not been properly compensated. This is only the first phase of closure. Ultimately, 39,000 units employing 7,00,000 people will be affected. Given the high price of real estate in the Delhi metropolitan area, such closures, mostly of small industries, have meant a windfall gain for the owners. The owners have not been compelled to reopen their factories at alternate locations. Selling the factory land has enriched them, and yet most of them have not paid their workers back wages for six years as stipulated in the court order.

Along with the gentrification that is occurring in Mumbai's heartland, such actions will ultimately lead to environmentally cleaner and more homogenised spaces for formal sector use in the most expensive land of the city. The informal sector will be pushed out to less valuable and visible spaces. The formal city is likely to become more and more globalised with increasing presence of global consumer culture in retail shops, banks, services and recreational activities. In contrast, the poorer parts of the city, with their older housing stock, the declining industrial areas with their unemployed, the slums and the squatter settlements constitute a kind of 'other city' linked strongly to a local informal sector.

In economically dynamic cities of south and south-east Asia, the informal sector is connected to the global economy through subcontracting work from global firms under sweatshop conditions [Seabrook 1996]. As spatial entities, both the formal city and the other city occupy disconnected fragments of metropolitan space, and their politics is locality-specific rather than class-based. These trends are already observable in Asian cities as diverse as Manila and Bangkok where "instead of mere differentiation between world regions, centre and periphery today indicate a differentiation between global society and segmented localities, both spatially anchored in world cities [Berner and Kroff 1995:212]".

Emergence of New Cores and Peripheries in Urban India

The focus of this paper is on the changes taking place gradually in the urban system against the background of these changes in the demographic, economic and social geography of India's largest cities and the emergence of new cores and peripheries. The old hierarchy of four megacities located in different regions of the country is giving way to urban corridors and clusters of new investment located mostly in the southern and western parts of the country.

With the exception of the Delhi region and adjacent areas in Haryana, Punjab, Rajasthan and Uttar Pradesh much of the north, the east and the centre of the country have been bypassed. This vast area covering the eastern half of UP and stretching across Bihar, West Bengal, Orissa, Madhya Pradesh and the eastern part of Maharashtra is emerging as the new urban periphery, still locked in old industrial bases, high unemployment and a deteriorating resource base.

As one indicator of this ongoing process of economic differentiation is the quantity and type of new investment coming into the different urban regions of the country, I now turn to the pattern of large-scale investment in some of India's biggest cities. Since the early nineties, the Centre for Monitoring Indian Economy (CMIE), an autonomous statistical organisation based in Mumbai, has been publishing data on various aspects of investment in India. The data are disaggregated by state and district and since some of the largest cities are coextensive with entire districts, it is possible to discern investment coming into these cities.

The CMIE records only investment in

project that cost at least Rs 3 crore (approximately US $ 7,07,000). This means that the economic activities of registered small-scale industries, which have an upper investment limit of Rs 3 crore and that of the informal economy, the largest employer in all cities, are excluded from the data.

As these activities contribute an estimated 40 per cent of India's industrial production, their exclusion from this record-keeping of investment needs to be explained. One reason is the much greater difficulty of getting accurate accounts from small and micro enterprises. A second reason, is the fact that these activities are more labour-intensive than capital-intensive and contribute a relatively small proportion of total capital investment. The large projects, on the other hand, could have multiplier effects in terms of jobs and income created in the city economy and its surroundings, and these could spell greater demand for informal-sector services and products.

Urban Core Areas

The following discussion, based on an analysis of the CMIE data, first highlights developments in the emerging urban core areas and then examines the new peripheries.[2] Table 2 lists the core cities by population and investment in projects being implemented.

It is clear from Table 2 that Mumbai, Chennai and Delhi have continued to attract considerable investment: in fact, Mumbai and Chennai, with adjoining areas, emerge as by far the most popular urban destination for new investment. Secondly, in all the largest cities the new investment has been directed at areas adjoining the city rather than in the city itself. Thus Delhi has attracted very few large projects but Ghaziabad, Faridabad and Gurgaon districts are experiencing considerable investment activity. Thirdly, several smaller metropolises are witnessing dynamic growth and have contributed to the extension of the old cores or are leading to the formation of new hubs of growth.

Ahmedabad-Pune Corridor

A stretch of western India which includes the Mumbai-Pune corridor and its extension northwards to include Surat, Vadodara and Ahmedabad is the country's leading core area. Districts falling within this north-west and south-east belt include Raigad in Maharashtra and Bharuch in Gujarat, each of which has seen investment exceeding that of entire states. The belt is highly industrialised along the Ahmedabad-Mumbai and Mumbai-Pune national highways and has a high percentage of urban population.

Investments within Greater Mumbai reflect the city's preoccupation with improving telecommunication services, hotels and transport. These sectors account for 26.7 per cent, 27 per cent and 8.2 per cent respectively of the total investment in projects under implementation. While the hotels are all private, transport and telephones are public-sector-controlled, with all investments being made by the government. Of note is the state government's investment in fly-overs for the city. A central government investment of Rs 142 crore in an airport terminal will enhance Mumbai's air transport facilities. Two other major infrastructure projects are a joint-sector gas pipeline project and a private hospital complex.

Investment in manufacturing has been less than that in infrastructure and services and is mainly accounted for by a major project owned by the public-sector Bharat Petroleum Corporation to produce high-speed diesel oil. This project, estimated to cost Rs 622 crore, accounts for 15 per cent of the total investment under implementation in Greater Mumbai. In contrast textiles, Mumbai's traditional industrial specialisation, has attracted only Rs 102 crore or 2.5 per cent of the total investment.

Adjoining Thane district, which the 1991 Census has considered to be a part of the Mumbai urban agglomeration, has a greater number of projects in manufacturing industry, for instance in fabrics, paper, chemicals, metal-based products and computer software. Here too investment in transportation has been large. It involves the creation of critical rail and road links with Greater Mumbai – for instance the Thane-Turbe-Nerul-Vashi railway project, which will also improve transport within Navi Mumbai.

South of Thane district is Raigad, the northern parts of which district clearly fall within the urban influence of Greater Mumbai. With transportation improving in Thane district, Raigad has become more accessible from Mumbai and during the nineties has attracted the highest quantity of investment of any district in Maharashtra. With Rs 10,925 crore to be invested in projects under implementation, it accounts for 16 per cent of the total investment in the state and 2 per cent of India's. It is Mumbai's industrial backyard, with 57 per cent of its investment accounted for by finished steel and steel products such as hot-rolled coils, bars and rods, castings and railway and ship containers. Investment by Indian corporations such as Mittals in steel and thermal electricity has been complemented by central government investment in chemicals and petrochemicals, which account for 10 per cent of total investments. The port at Nhava Sheva has attracted private-sector investment, including some foreign investment in port development, and central government investment in storage and warehousing services.

East of Raigad and adjoining it is Pune district – with Pune city at its centre – at the junction of the important routes connecting Mumbai to Solapur and Nashik to Kolapur. In western Maharashtra, Pune is thus the vital link between the cities/towns of the north and those of south and was historically very important as a Maratha stronghold. After independence and up till the early eighties, Pune remained a quiet university town with several research institutes. It was ideal for retirees because of its mild climate. But over the last 15 years it has been transformed into a bustling city with frenetic industrial activity.

Since the opening up of the Indian economy in 1991, Pune has attracted considerable investment in passenger car manufacture, three-wheeler and two-wheeler production and automobile ancillaries. In fact about 60 per cent of its total investment under implementation is in such products, with foreign companies such as Mercedes-Benz and Indian companies such as the Tatas and Bajaj making contributions.

Steel and steel products account for another 8 per cent of total investment, while tractors, diesel engines and other heavy equipment account for another 10 per cent. Foreign domestic appliance manufactures such as Daewoo and Matsushita are gradually entering Pune, and their investments account for about 3 per cent of the total. A 100 per cent export-oriented floriculture project and the cultivation of upmarket horticultural products such as mushrooms are also making their presence felt in Pune district

The Southern Hubs of Growth

Chennai and Coimbatore, together with Bangalore represent the new growth that south India is experiencing. Chennai city itself has not attracted much investment other than a private-sector power project which accounts for 40 per cent of the total investment of Rs 2,075 crore that is under implementation in the city, a railway project worth another 29 per cent and some private hotels worth 15 per cent. Foreign consumer electronics and textiles represent 5 per cent and 3 per cent of the total respectively.

It is the greater Chennai region – the district of Chengalpattu MGR or Chengai-Ana surrounding Chennai – that has become an industrial hub for the entire south. Of the Rs 13,505 crore of investment under implementation there, 22 per cent is in chemicals (private-sector) 18.6 per cent in petroleum products (central government) and 41 per cent in passenger cars and car ancillaries. Hyundai, Mahindra Ford and Hindustan Motors are building new units for passenger car production. Foreign capital has also entered the field of car ancillaries manufacture. While the bulk of the investment in this district has been private, the government has invested about 9 per cent of the total in infrastructure, including a port at Ennore, the Cheyyar rail bridge and a technology and industrial park at Gummidipoondi.

Bangalore is the second point of the southern urban triangle. At the time of independence, its industrial base was dominated by textile production, home-made and factory-made, and public sector units such as Hindustan Aeronautics. Rapid growth since independence has greatly diversified this base. The fifties and sixties saw the establishment of key public-sector research institutes and production facilities in Bangalore, the late sixties and seventies, the growth of a state government bureaucracy and government-run businesses; the eighties the growth of private enterprise, particularly in micro-electronics, and the late eighties the entry of multinational corporations and the city's emergence as the 'Silicon Valley' of India [Heittzman 1997].

Each of these phases of growth has left its impact on the industrial structure of the metropolitan region. Although textiles, silk weaving and the numerous public-sector enterprises are still the largest employers, they are not the areas of dynamic growth. Private-sector enterprises, in micro-electronics hardware and software production with foreign tie-ups represent the growth sector in the city.

Under construction at Whitefield is a joint-sector technology park estimated to cost Rs 1,650 crore, 55 per cent of the total investment under implementation in the city. Cigarette manufacture, computer software, hotels and aircraft manufacture account respectively for about 13.6 per cent, 7 per cent, 8 per cent and 3.6 per cent of the total investment under implementation. Snacks, footwear and silk yarns and textile articles comprise much of the balance. Rural Bangalore, on the other hand, is the site of a Volvo unit for the manufacture of buses and a Toyota-Kirloskar plant for utility vehicles.

The third point of the southern urban triangle is Coimbatore district, 53 per cent of whose population lives in urban areas. The million-plus city of Coimbatore and Tirupur, a town of 3,06,000, dominate this district. Both are textile-based towns but there the similarity ends. Coimbatore specialises in cotton yarn production and has numerous large mills, while Tirupur is well known for its knitwear, specifically cotton T-shirts produced by numerous small-scale industries for export [Gulati 1997]. Coimbatore, though a much larger city, has grown less fast over the last two decades than Tirupur, whose growth rate of 41.55 per cent during 1981-91 has been the highest among the 25 Class I towns (towns with a population exceeding 1,00,000) in Tamil Nadu.

Apart from some new investment in cotton yarn, Coimbatore has not attracted much investment in the nineties. Tirupur, on the other hand, has done well for a town of its size. The dynamic growth of its export-earning cluster of small-scale industries has increased its importance. Currently under implementation are a number of public-sector projects to improve road and telecommunication facilities in that town.

The Rising Star: Hyderabad

No other city has been hailed as much by the media as Hyderabad as symbolising an information-based economy exporting to global markets and drawing on high-quality professionals and technology as Hyderabad. And no other state has received as much media attention in this context as Andhra Pradesh. Though Bangalore is still ahead in terms of its software output, Hyderabad is predicted to overtake it in the 21 century. The thrust towards software and information systems of Andhra Pradesh and Hyderabad received a big boost in the mid-nineties with Chandrababu Naidu coming to power in the state.

An important addition to the Hyderabad scene since the Naidu government took over was the establishment of the Indian Institute of Information Management (IIIM), with major software corporations such as IBM, Oracle and Microsoft participating in the development of its educational resources. Another one was the opening in December 1998, of the much-publicised Hi-Tech (Hyderabad Information Technology Engineering Consultancy) City a joint-sector project which cost Rs 1,500 crore. This is a unique techno park with a wide variety of infrastructure facilities for information technology. Spread over 158 acres, it is the largest of its kind in Asia [Menon 1998]. Thanks to reliable power supply, high-speed global connectivity and other support systems, two-thirds of its space has already been sold.

Madhapur, the suburban area housing this part, has attracted other IT companies, for instance Baan Infosystems and Info Tech Enterprises. This investment together with that in Hi-Tech City accounts for 72 per cent of the total investment under implementation in Hyderabad. Of the balance, around 8 per cent comprises the government's investment in infrastructure such as roadways, telephone communication services and airport expansion.

Hyderabad's software exports accounted for only Rs 4 crore in 1992. By 1997-98, this had increased to Rs 273.3 crore. Hyderabad has recorded a growth of 140 per cent in its information technology sector over the past few years. Its earnings from software exports and other domestic IT services are likely to reach Rs 2,000 crore by 2000 and Rs 16,000 crore by 2005 [Menon 1998]. Hyderabad's one disadvantage *vis-a-vis* Bangalore is that there is no large city or corridor of smaller cities close to it. Synergies from the spillover of inter-urban interaction are limited here, and this could affect its growth.

Delhi Region

Delhi has exercised a magnetic pull on new investment, but most of it has gravitated to smaller towns adjoining the capital rather than to the capital itself. Cheaper land and easy access to the capital have been among the reasons for this. Other than two large private hotels, most of the investment in the capital itself has been made by the central government – in telephone communication services and a small railway bridge project. The much-publicised metro rail project, which will involve an investment of Rs 4,860 crore is still under negotiation.

In adjoining Gurgaon district there has been investment of Rs 1,500 crore by the central government in the expansion of the Maruti Udyog car plant. There has been some private investment in auto ancillaries, storage batteries and compressors and hotels. In Faridabad the central government is implementing a Rs 1,163 crore gas-based thermal power plant, while private capital has been invested in a wholly export-oriented floriculture project, ice-cream, cloth and lube oils over the last few years.

Ghaziabad (UP) has drawn the most investment of the districts adjoining Delhi,

with considerable foreign capital in consumer electronics and the Daewoo Motors plant under construction. In fact, about 77 per cent of the total of Rs 5,549 crore invested in projects under implementation in Ghaziabad is foreign capital, with the Daewoo Motors plant accounting for 62 per cent of the total. Auto ancillaries, oil-based thermal electricity, cement, frozen food and a five-star hotel and golf resort, are other areas of private investment.

Growth in the Core Analysed

The core areas show some common features regarding investment patterns. First, the complementary role of the public sector *vis-a-vis* the private sector. Investment by the government has targeted areas favoured by the private sector either through outlays on critical infrastructure or through investment in key industries such as chemicals and petrochemicals. Secondly, in each of the largest cities in the core, that is, Mumbai-Pune, Delhi, Chennai and Bangalore huge investments have been made in the manufacture of automobiles and automobile ancillaries. Much of this investment has been made by foreign car companies. Foreign capital has also been entering the area of domestic appliances.

Thirdly, although the economic base of the largest cities continues to be diversified, the dynamic sectors are only a few and show a considerable degree of specialisation. This means that their human capital requirements will be highly specific and their employment effects limited. Fourthly, many of the fast-growing sectors produce consumer products and services that reflect the spread and acceptance of a global material culture by India's middle and upper income groups. The largest metropolitan cities are the best markets for this culture.

The Periphery

This is a broad term that encompasses all those regions not experiencing growth of the type described above. It is a vast area spread over the north-east, the east (Bihar, West Bengal, Orissa), central India (Madhya Pradesh and the eastern parts of Maharashtra and Uttar Pradesh) and the northern borders (Jammu and Kashmir and the interior of Rajasthan). The socio-economic differences between the economically dynamic regions and these slow-growing and economically stagnant regions are getting accentuated as liberalisation advances [Dutta and Goswami 1997]. The metropolitan regions falling in the periphery are given in Table 3.

As can be seen from the table, only eight of the 23 metropolitan cities fall in the periphery. As a whole, the periphery comprises less urbanised and less industrialised states or portions of states. Secondly, it contains regions and cities that once saw better times – Calcutta best epitomises this decline. Calcutta today ranks fourth – after Mumbai, Delhi and Chennai – in many important economic functions. Though Calcutta's decline began with its loss of capital-city status in 1911, it was hastened further by the overall decline in manufacturing industry that has beset West Bengal since the early sixties and which persists.

In the sixties West Bengal, along with Maharashtra, was India's leading industrial state, accounting for 14 per cent of India's industrial output. This had fallen to 9.8 per cent by 1980-81 and 5.6 per cent by 1992-93 [Government of West Bengal 1996:110]. Industrial decline has affected all spheres of business and commerce and is reflected in the slowly declining share of Calcutta's port and airport in all-India foreign trade. In 1985-86, 10.57 per cent of India's exports and 9.57 per cent of India's imports passed through Calcutta's port and airport. By 1995 this had fallen to 2.69 per cent and 5.5 per cent respectively [Government of West Bengal 1996:150].

Compared to the other metropolitan cities in the periphery, however, the Calcutta region has attracted some investment since 1991, though the scale of investment, particularly that undertaken by the private sector, has been relatively small. The largest project under implementation in Calcutta city is a Rs 600 crore project for waste recycling funded by the state government. Cellular mobile phone service and hotels have also seen some investment and a private sector leather complex is coming up.

What is interesting to note about investment in the Calcutta metropolitan region is that about 31 per cent of it is in the expansion of existing units. Thus, while there has been no new investment in the manufacture of cars in this region, Birla's old factory is being expanded at a cost of Rs 100 crore. Similarly the investment in paper, tyre tubes and tubes has been for the expansion of existing factories. The one major new investment project in the metropolitan region is a private coal-based electricity plant coming up at Budge-Budge at a cost of Rs 1,853 crore.

Nagpur is another city in the periphery. While it has some private investment in its steel products, it cannot match the dynamism of the cities of the western part of Maharashtra. In fact this city has seen the closure of many small-scale industries due to lack of effective demand for the capital goods produced by its large firms. In the other metropolitan cities of the periphery, the amount of investment under implementation is quite small, and in the case of Patna, Varanasi, Indore and Bhopal it is entirely accounted for by the central government's outlay on small infrastructure projects. These cities have not attracted any private investment. Kanpur, on the other hand, has attracted private investment – though only a small amount – in the manufacture of two-wheelers.

Conclusion

The focus of this paper has been to highlight first the unevenness in the distribution of the new investment made in the country since the early nineties and second, its impact on the major cities. A detailed examination of the size and type of investment in the larger cities indicates that there are emerging urban cores of high investment where growth is based predominantly on automobile production, consumer electronics, computer software and information technology, chemicals, petrochemicals and steel production.

These cores are geographically confined to the Ahmedabad-Pune urban corridor, the southern urban triangle of Bangalore-Chennai-Coimbatore, the northern region centred on the Delhi capital region and nearby areas in Rajasthan and Punjab, and new hubs of growth in the south such as Hyderabad, Vishakapatnam and Kochi. The remaining metropolises and the regions surrounding them have been virtually bypassed by the new growth that has followed the liberalisation of the Indian economy. Quite clearly, the disparity between the northern and southern halves of the country that was beginning to emerge has become more entrenched during the nineties.

Notes

[Based on a paper presented at the International Conference on 'City, State and Region: Toward the 21st Century' held in Hiroshima University, Hiroshima, Japan from December 19-20, 1998.]

1 This is seen in the case of both the per capita incomes of the states and the growth rates of per capita income. For instance, in 1970-71, Punjab, the wealthiest state, had a per capita Net State Domestic Product (NSDP) that was 39 per cent above the Indian average. By 1995-96, its per capita NSDP had risen to 50 per cent above the Indian average. At the bottom end, in 1970-71 the state of Bihar had a per capita NSDP that was only 60 per cent of the Indian average. By 1995-96, Bihar's per capita NSDP had further declined to only 39 per cent of the country's average.

2 The CMIE data on total investments comprise investment in projects that have just been announced, projects that have been formally proposed and those that are actually under implementation. Since there is big gap between investment in projects being implemented and total investments announced, the figures used here are based on what is actually being implemented.

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Patent Lies and Latent Danger

A Study of the Political Economy of Patent in India

Biplab Dasgupta

The creation, under the TRIPs agreement of 1994, of a uniform, standardised international patent regime, unheedful of the differing levels of development, natural and human endowments and history of various countries, has become controversial. Firstly, such a regime clashes with the 1993 convention on biodiversity wherein 170 countries have upheld the need for diversity. Secondly, the increasing patenting of life forms in the developing countries by the MNCs under the pretext of bio-prospecting will lead to a patent regime overwhelmingly in favour of the developed countries. Moreover the 20-year period of product patent rights together with the monopoly marketing rights eliminates the possibility of competing with the MNCs on equal footing. In such a scenario, what should India's position be on this issue?

I
Introduction

IN recent months/years public attention has been focused on the issue of patents, largely because of the devious manner in which attempts have been (and are being) made by both the BJP and the Congress governments to stifle public debate on this highly important issue having serious implications for India's future course of economic development. At the same time, the very obscure nature of the subject as also the jargon deployed - legal, technical, economic and scientific - have erected barriers to a proper understanding of the issues. This paper is an attempt to present the issues in a simplified form as a step towards a major national debate on these.

The paper deals with four types of proposed amendments to the Indian patent legislation and their implications for the Indian economy and society. First, amendments to the Indian Patent Act of 1970 that need to be carried out by 2005 AD in order to conform to the international patent regime (IPR) prescribed by the World Trade Organisation (WTO). Second, the transitional amendments required by the Trade Related Intellectual Property Rights (TRIPs) agreement pending such overhaul of the patent system, in particular the provisions regarding exclusive marketing rights (EMR) and the setting up of a mailbox for receiving patent applications, that is being debated at the time of writing this paper. Third, the proposed bill on biodiversity, being prepared by the ministry of environment to give effect to the international agreement on bio-diversity that was signed in 1992, that is nine years ago. Lastly, the bill on plant varieties, mainly to safeguard the interests of plant breeders, to be sponsored by the ministry of agriculture. While transitional rules are being discussed now and will be placed for approval to the parliament in the last week of February 1999, those on biodiversity and plant breeders' rights are also likely to come before the parliament during the comming budget session.

The paper is divided into five sections. In Section II we examine concept of intellectual property right and arguments justifying and opposing patents. In Section III this paper examines the main features of the international patent regime established by the TRIPs agreement at Marakesh in 1994, that is being implemented by WTO, the new organisation founded on January 1, 1995, to replace General Agreement on Tariff and Trade (GATT). Section IV deals more specifically with the issue of biopiracy and various ways of protecting the biological wealth, while Section V deals with the political economy of patent, in the Indian context, in particular the controversy around the amendment to the Indian Patent Act of 1970 in recent weeks and months.

II
The Concepts of Intellectual Property and Patent

Intellectual Property

Intellectual property, as the name implies, has something to do with mental work, such as a song, a music, a poem, a film, and a computer software package, unlike properties such as land, car, or machine that are tangible and have a physical existence. Intellectual property right (IPR) is a right on such properties, and is recognised by laws relating to copyright, trademark or patent. Copyrights are governed by the Berne convention for the protection of literary and artistic works, as revised in 1971 in the Paris Convention, and are recognised for 40 to 50 years. Trademark, another type of intellectual property, reflects the goodwill of a company, eg, the logo of Bata Shoe Company, and carries the imprint of quality production. Some brand names are so well known that people identify those with the products themselves, eg, Mobil, the production of Socony Mobil Oil Company, as motor oil, and Xerox, a product of the Rank Xerox company, as photocopying itself. These popular brand names or trademarks – here we are not talking about products that carry their logo, but only the right to use those names – can fetch very high prices if sold in the market.

To qualify for patent right – another type of intellectual property right relating to invention of products, such as machines or medicines – three conditions need to be fulfilled: the invention has to be novel, non-obvious and of practical use. The inventor has to produce something that did not exist earlier. It has to be something that cannot be deduced quite easily, by those who know the subject, from what is already known. Further, an idea, a theory or a mathematical formula cannot be patented; it has to be embodied in something that satisfies some practical needs. An inventor fulfilling these conditions can apply to the patent office, giving description of his invention, if necessary with diagrams or models, and providing evidence in support of his claim. The patent right is conferred after the verification of such claim, according to a well laid out procedure, by the patent office [Armitage and Davis 1994: 5-7; Quick's Guide 1996: 1].

The patent right endows its holder a time-bound monopoly in the given product. The right is more negative than positive in its orientation. For example, Article 10 of the European patent legislation does not authorise implementation, but merely entitles the patent-holder to prohibit others from exploiting it for industrial and commercial purposes [Manally 1997:4]. During this specified time period no one

else can produce the patented product without his permission. The patent-holder can exercise his right in a number of ways. If he so desires and can mobilise enough funding on his own, the patent-holder can set up a factory producing this, and, thus, can make the most of this monopoly right by earning a huge profit. As an alternative, he can sell his patent right to another company at a high price or can lease out his right to others to produce it subject to certain conditions. He can give his right to Company A, only to produce for the market in Market X and for no other market, and only for, say, three years, at a fee. In other words, like land or car, he can sell, transfer, lease, gift or otherwise dispose of his intellectual property. Such rights continue only during the patent period; at the end of which anyone can produce it without his permission.

The justification usually given for the time-bound monopoly allowed to an inventor is that it allows the inventor to recoup his cost of developing this product and also to compensate him for the risk he undertook. Further, it is also expected that such rewarding of innovation would encourage others to bring into being new things or new ways of doing old things, and, thus, help to extend the frontiers of scientific and technical knowledge that is going to benefit mankind as a whole.

On the issue, how far and to what extent patents provide incentive to invent, no clear and unambiguous answer can be given. Though several studies show a close relationship between patent and investment, several others fail to reveal any. There is no evidence that Holland and Switzerland were harmed during their years without patent, in 1869-1912 and 1850-1907, respectively. One Canadian study showed that patents were not important in investment decisions. As one scholar observed: "Overall there is no direct statistical association between the existence of patents and private R and D investment. Stronger patent laws are associated with more patent applications, but whether those inventions would be forthcoming even in the absence of IP protection is not known with certainty." Patents never lead to total exclusion of others, as the rivals can 'invent around' a patent and make patenting less attractive [Lesser 1991:33, 35-36]. All these not to deny that patent rights, by establishing individual property in their invention, do provide incentive for invention in societies dominated by individualised values and norms, but to put such claims in a proper perspective. The history of mankind is replete with inventions having deep impact on the course of development, such as the invention of stone tools and wheel, for which the inventors were not commercially rewarded.

Coming to agriculture, by far the biggest progress in increasing productivity in India has taken place under a no-patent regime – the green revolution technology. Since the mid-sixties, the green revolution technology has led to a tripling of India's food production in three decades. While sharing many of the ills associated with privatisation of rights and dependence on MNCs, it was free from the patent regime. What made green revolution possible was the purchase of a few kilogrammes of 'foundation seed' of high-yielding wheat, rice and maize varieties from CYMMIT of Mexico and IRRI of Manila, their cross-breeding in agricultural universities, particularly at Ludhiana, with local varieties to produce new varieties that combined the high-yielding properties of exotic varieties with the durability and adaptability of local varieties to local ecology, and then to release those after several years of experimentation to seed farmers. The seed farmers multiplied those new varieties and sold those to actual farmers who planted those [Dasgupta 1976].

The debate on intellectual property and the role of patents in disseminating or obstructing information has raised many interesting questions that remain unresolved. It was Arrow who highlighted the fundamental paradox of information, a global public good with an innate capacity for diffusion. Information is not marketable until revealed, as its value is not known prior to its revelation, while consumer's willingness to pay can be concealed after revelation of the information – since transfer has already occurred. Further, it is extremely difficult to segregate between information flows, as there are a multitude of potential paths leading to the same conclusion [Swanson 1997: 153-55].

III
Global Intellectual Property Regime under GATT-WTO

In India, as early as in 1852, under the British colonial regime, the first patent legislation was passed and a patent office was established. Similar patent legislation and accompanying offices and procedures came into being in other countries too. A number of important international conventions on intellectual property rights predate the TRIPs agreement at Marakesh in April 1994, such as the Stockholm Convention of 1967, the Berne convention for the property of literary and artistic works and its Paris Act of 1971, the Rome convention of 1961 for the protection of performers, producers of phonograms and broadcasting organisations and the 1989 Treaty on Intellectual Property in Respect of Integrated Circuits or IPIC accord [Schott 1994: 115-16].

Until 1995, the World Intellectual Property Organisation (WIPO), based in Geneva and established in 1974 following a world intellectual property convention at Stockholm in 1967, was the agency to look after such issues. There have been several international conventions on patent rights, between the Paris (1883) and the Stockholm (1967) ones, at Brussels (1900), Washington (1911), The Hague (1925), London (1934), and Lisbon (1958) and nearly all the issues relating to intellectual property examined by the Marakesh agreement had been covered by those [Keyala 1998:19]. WIPO made a distinction between four types of patents: product *per se*, product by process, by uses and by processes. Aspirin is patented as a product *per se*, but its anticlotting property can also be taken as a use patent; one cannot use the second patent without infringing the first. Patents were usually for 14 to 20 years, but there were wide variations among countries in terms of patent period specific to various items. Most less-developed countries and Europe excluded plants and animals or the method of treatment of human or animal body from patent law, and many also excluded foodstuff and medicine [Lesser 1991:10-15, 28]. Generally speaking, individualisation of rights in intellectual property by way of patents have accompanied capitalist development in industry and agriculture for more than one-and-a-half century, along with individualisation of other property rights.

The reason why this subject has become controversial in recent years is because of the creation, under the TRIPs agreement of 1994, of a uniform, standardised international patent regime that applies uniformly to all the countries, irrespective of their levels of development, natural and human endowments, and history. To justify GATT takeover in an area hitherto reserved for another international agency, WIPO, the 'trade related' part secrecy is usually fostered by the fear of stealing of industrial secrets by rivals and their patenting to those ahead of the former. Industrial espionage has become a fact of life in the developed countries. The overall experience is that patents create monopoly and erect barriers to dissemination of knowledge [Corner House 1997:3-5].

The TRIPs takeover of WIPO role is not first time that international bodies, mostly

affiliated to United Nations, have been supplanted to make room for the world economic trinity – holy or unholy according to one's point of view – of fund, bank and WTO. The United Nations Environment Programme (UNEP) has been supplanted by Global Environment Facility led by World Bank, trade issues have been taken over from the United Nations Conference on Trade and Development (UNCTAD) and given to WTO, investment measures have been taken away by WTO from United Nations Industrial Development Organisation (UNIDO) and labour standards from International Labour Office (ILO).

Marakesh Agreement

The recent controversy on patents arises from the Marakesh agreement of April 1994, following seven years of trade negotiations under the Uruguay round of GATT, from 1987 to 1994. During this last round of GATT negotiations a number of new items were introduced: intellectual property rights (IPR), services, and investment among others. Further, drastic trade liberalisation was proposed in cases of textiles, agriculture and government procurement, while several trade rules such as anti-dumping, subsidies, countervailing measures and safeguards came under discussion [Dasgupta 1998: Chapter 4]. Initially, the less developed countries, including India, strongly opposed the introduction of those new items in GATT negotiations, but after the disintegration of the Soviet Union in 1991, such opposition withered away.

The two years of discussion on Dunkel draft (1991-93) was an exclusively rich country matter. The dispute was mainly between western Europe and the United States on the question of agricultural subsidy, while Japan also played a major role [Dasgupta 1998: 163-64]. The final Marakesh agreement of April 1994 also included a number of separate agreements on services, investment, intellectual property and agriculture among others. In all, 38 such agreements were signed. The signatory countries were not given the option – as had always been the international practice, followed even in the case of agreement of the European common market – of opting out of some of the provisions, its signature on the one and only dotted line signified agreement with the entire document, comma, semi-colon, period, all. TRIPs, the most important amongst those, has led to the establishment of an international patent regime. The member countries have been asked to amend their own patent laws in conformity with the latter within a given timeframe [Dasgupta 1998: 170-74].

Complaints about Piracy

For several years preceding Uruguay round GATT negotiations the western countries had been complaining about the 'piracy' of their intellectual property by China and east Asian countries. In 1990, eight cases were lodged by the US government under Super 301, against less developed countries, on the violation of IPR. In 1988 IBM induced the government of the US to put Brazil on Super 301 hit list, following allegations over a national informatics law that was designed to protect the national computer industry; the threat was withdrawn only after Brazil agreed to amend that legislation. In 1987 and 1988, similar disputes with South Korea and Thailand on software protection were resolved after the 'offending' legislation were amended [Watkins 1992:81-82]. China too came under the threat of Super 301, and was asked to introduce patent legislation and to pay royalties, retrospectively, on patent infringement dating back to 1986 – though it was ignored by the Chinese [Watkins 1992:131].

Thus, a strong lobby had been operating in the US and other western countries from the early eighties that felt that their position at the cutting edge of technological progress was being eroded by unauthorised copying of their intellectual property. And while 'export-back' of the 'pirated products' to the US could be restricted by the US law, they felt that, such piracy restricted their markets in the other countries. A globalised patent regime was the only way to protect themselves from such 'piracy', they argued [Deardorff 1993:435].

Some estimates were made in the late eighties to show that the US firms were annually losing around $ 61 bn from such piracy of their intellectual property, around $ 3-6 bn of those by the chemical and pharmaceutical industry alone [Lesser 1991:1]. The lobbying became more intense as the Uruguay round GATT negotiations proceeded. The Dunkel draft was severely criticised for its failure to bring the patenting of all life forms under the GATT rules. Similarly, the Marakesh agreement was criticised for its failure to grant 'pipeline' protection for drugs already invented but not yet on the market. A section of that lobby even demanded withdrawal of the US from the Uruguay round should their demands remain unfulfilled [Watkins 1992:130]. A large component in this coalition in favour of globalisation of intellectual property rights was agro-chemical conglomerates, such as Pfizer, Monsanto and Du Pont. In case of grain, Cargill Corporation played a key role in advising US government on this issue [Watkins 1992: 38]. The signing of TRIPs signalled the victory of their sustained campaign for years.

TRIPs agreement provides a comprehensive set of global trade rules for the protection of copyrights, patents, trademarks, industrial designs, trade secrets, semiconductor layout designs, and geographical indications, that apply to all the member countries irrespective of their levels of development, natural and human endowments and history [Schott 1994: 117-18]. Every member country has been asked by WTO to amend its national patent law to conform to that universal, globalised format. Under Article 65, the developed countries have been asked to change their laws within one year, and the less developed countries within another five years, and an additional five years for legislation relating to pharmaceuticals, agro-chemicals, food, alloys, etc. The least developed countries have been asked to make those changes by 2005 AD [Schott 1994:120].

Contrast with Rio Earth Summit Call for Bio-Diversity

This attempt at global standardisation and uniformity by way of TRIPs agreement is in conflict with the main thrust of the Rio Earth Summit of 1992 that set out the conditions for sustainable development. These two reveal two contrasting types of international approaches and norms. While the 1992 Earth Summit and the 1993 convention on bio-diversity (CBD) focused on 'diversity' as being fundamental to sustain life and development, TRIPs and WTO are pushing for 'conformity' to international standardised norms on patents, services, labour, investment and what not, irrespective of their history, ecology, level of economic development, etc [WCED 1990]. But despite their diametrically opposed viewpoints, 170 countries signed CBD upholding the need for diversity, and 150 countries signed the TRIPs agreement in 1994 claiming the urgency of uniformity, with a very large element of common names (130) in both [Gaia and GRAIN 1998:1-2].

The convention on biodiversity (CBD) in its Article 16.5 specifically asserts that intellectual property rights must not be in conflict with conservation and sustainable use of bio-diversity, a provision that has been totally ignored by those who composed the TRIPs agreement [Swanson 1997:1; Gaia and GRAIN 1998:1,3]. While in case of agriculture the higher yield of patented products induce the

farmers to switch from a more varied production pattern, the resulting narrowing of genetic base makes the economy and society more vulnerable to plant diseases and epidemics [Lesser 1991:61; Gaia and GRAIN 1998]. It is true that the move towards cultivation of a smaller number of higher yielding varieties and the uniform spread of the same variety over a large space predates the present debate on patent, particularly since the introduction of the green revolution technology in the mid-sixties, but there can be no doubt that the latter has brought about a qualitative change in the scenario and has created possibility of a vast quantitative change too in that direction [Dasgupta 1976; Lesser 1991: 61-63]. So far no attempt has been made to reconcile the two conflicting approaches of CBD and TRIPs. If diversity is so important for sustaining life, how can WTO demand conformity to standardised global formats?

Other Issues

Questions have been raised as to how far this new patent régime would allow effective competition or dissemination of information. Some have taken the view that it departs from the competitive ideals and further restricts the access of the poor countries to technology [Stewert 1993: 20-21]. While the main thrust of GATT negotiations in the past had been against protection of domestic industries by way of tariff or quota restrictions, TRIPs is by its very nature a protective arrangement [Deardorff 1993: 436]. Its Article 39 provides for the protection of undisclosed information, except where necessary for public good.

The moral tone underlying TRIPs, that (a) one is entitled to enjoy the fruits of his creative activities, and (b) piracy of intellectual property is unethical, has also been challenged on the ground that this is a Euro-centric view of culture, reflecting individualist capitalist western value system. What is piracy and what is not is a matter of national patent law, governed – at any rate until the universalised patent regime under TRIPs – by the principle of territoriality.

Even in the west where intellectual property is jealously guarded against piracy, ideas cannot be copyrighted, only their expressions in a particular form can be; and even in that case the protection given is valid only for a given time-period. In other words, implicitly, even the west sees the benefits of protection declining over time as the social cost of patents exceeds its benefits. Patent rights are not absolute, and are to be judged in terms of their social utility. Needless to add, estimates regarding costs and benefits also vary over space [Deardorff 1993: 438-40].

While the US sees patents as a matter of individual right, to some it is one of national economic policy [Lesser 1991: 1-2]. Patent rights, while providing incentive to invent, grant a monopoly and give rise to monopoly prices, thus reducing consumer welfare, as he would now consume less than he would have without such monopoly [Deardorff 1993:441]. In this sense, patent is very much like import control and in having a similar social welfare impact on consumers as the latter. Thus, if import control is bad, by the same reasoning, patenting is also equally bad – one cannot uphold one and decry the other.

It has also been found that about two-thirds of patented products are never produced. They are patented to keep rivals away from the field, while the firms concerned continue to produce similar products catering to the same type of consumer need, thus further reducing consumer welfare [Lesser 1991:5]. Although most national patent laws provide for 'compulsory licensing', that is forcing the patent-holder to permit use of patented product by others, that is not easy to implement [Lesser 1991: 16, 25]. The TRIPs agreement is not keen about compulsory licensing, and provides for detailed conditions regarding notification, remuneration, and judicial review, etc, before such compulsory licensing can be introduced. Compulsory licensing of semiconductor technology is only allowed 'for public non-commercial use', or to remedy anti-competitive practices and must afford adequate compensation to the right holder, under Article 31C [Schott 1994:119]. On the other hand, in patent legislation of several countries, such as Argentina, Brazil or China, the 'compulsory licensing' provisions more effectively force the patent-holder to desist denying access to the patented product and makes it possible for others to apply to the patent authorities for permission of such use against a fee or royalty [Keyala 1998:75-77].

Another aspect of this globalised patent regime is its differential impact on the more or less developed countries. Vaitsos estimated in 1972 that, in case of the less developed countries, 80-85 per cent of the patents is held by foreign interests, a figure confirmed by a subsequent UNCTAD study in 1975 [Vaitsos 1972:77]. It is more than likely that the proportion remains the same now or has actually increased [Lesser 1991:45]. According to a more recent document of WIPO, the citizens of developed countries hold 95 per cent of African patents, 85 per cent of Latin America and 70 per cent of Asia [Gaia and GRAIN 1998: 7]. According to another source, the vast majority of bio-tech patents are in the name of the companies originating in the west – in 1990, 36 per cent of those were in the name of the US companies, 32 per cent in the name of the European community companies, and another 23 per cent in the name of their Japanese counterparts – an aggregate of 91 per cent [Swanson 1997:104].

Given that an overwhelming proportion of patents originate in the developed world, patent protection is likely to lead to a transfer of income from the less developed to the more developed countries and thereby to widen income disparities between the two [Deardorff 1993: 445]. The less developed a country is at the beginning of the globalisation process initiated by WTO the greater would be its difficulty in pushing exports and in competing with products supported by the international patent regime. Therefore, for these countries "although the export market remains an important option, it cannot be the sole route" [Fishlow and Gwin 1994: 9]. As one Fund-Bank document concluded in 1994: "Countries with less immediate scope for attracting high-technology investment or exporting intellectual property tend to regard TRIPs as a mechanism for transferring economic rents to technologically advanced countries" [Development Committee 1994: 71].

Another consequence would be a shift away from the public domain as public funding of research and development for the overall benefit of citizens would be replaced by private companies solely concerned with their own profit [Dommen 1993: 10]. Generally speaking, most basic scientific research is undertaken with public fund, mainly by the universities and research institutions patronised by the government. With public subsidy, "once discovered, an invention can be disseminated virtually without cost", and it can be shown that such 'common knowledge' products are efficient to finance publicly [Lesser 1991: 38-39, 47]. On the other hand, MNCs use the fruits of such basic research by making further investment on adaptive research for their commercial use. They cover only a small part of the total cost of research but then claim patent (that is monopoly) rights in order to exclude others from the fruits of such research.

Constantine Vaitsos sees in the patents a 'defensive strategy' by foreign companies "...to preserve markets that were once captured through exports and are subsequently threatened by competitors and/or

by the import-substituting strategies of the host countries. In this context, patents, far from providing a stimulus to foreign investment, appear to be a critical factor in blocking investments" [Vaitsos 1972: 71]. Nadal sees patents as a "powerful instrument to achieve control over markets, even without direct investment" [Nadal 1977:229; Lesser 1991: 59]. Talking about the impact of patents on agriculture, Vellve sees possibilities of higher agricultural costs and less welfare as a consequence of patenting of agricultural technologies [Vellve 1989; Lesser 1991: 60].

Further, as the experience shows, it is not usually the giant conglomerates with tentacles spread all over the world that make the earth-shaking discoveries, not even Bill Gates of Microsoft, the icon of the modern computer era. Many of the important original inventions and discoveries are made by small guys working in their tiny workshops, who sell themselves and their patented products to the MNCs as they cannot afford further costs of development and sales promotion.

TRIPs forecloses for the less developed countries of today the industrial strategy adopted by all the developed countries in the course of their development in the past, Japan and east Asian countries particularly in recent years, of liberally using foreign technologies or resorting to reverse engineering, for their own technological and industrial advancement [Hoggard 1994: 107]. For instance, Taiwan had loose or no international patent or copyright law, and followed the technology curve and product cycle of Japan, often purchasing second-hand technology. As one leading scholar on east Asia commented: "it is impossible to calculate how much of Taiwan's early growth was fuelled by the learning that went on while trying to reproduce products protected elsewhere in the world". In the early eighties US trade representative's office accused Taiwan of being responsible for 60 per cent of counterfeit and pirated items in the world market [Brautigam 1995:170].

That option, good or bad, right or wrong, moral or immoral, does not exist any more. In case of Japan and other east Asian countries 'reverse engineering' was nearly always the first step towards technological self-sufficiency, a path that India can no longer take. 'Local content requirement' was another that the former used to protect their nascent indigenous industries and to keep foreign predators away; that too is banned under Trade Related Investment Measures (TRIMs). In other words, India will have to do without the two major props these east Asian countries used in their journey towards industrialisation [Dasgupta 1998:268-70]. While the western countries and their companies are generally shy about transferring technology to the poor countries, there is a fear that IPR would further reduce such transfer and access to sophisticated western technologies [Castro 1994:52].

Patents in India

As we have already noted, patent legislation has a long history in India. Beginning in 1856, the Indian patent law has been revised a number of times [Keyala: 18]. The latest, the Indian Patent Act of 1970, recognises patent rights for a period of seven to 14 years. Article 5 of the Indian Patent Act provides that in case of inventions (a) claiming substances intended for use or capable or being used as food or medicine or drug, (b) relating to substances prepared or produced by chemical processes (including alloys, optical glass, semiconductors and inter-metallic compounds) no patent shall be granted in respect of claims for the substances themselves, but claims for the methods or processes of manufacture shall be patentable. Even in areas where patent is permitted, the government is empowered to reject patent application in national interest. Further, to prevent acquiring patent rights solely with the objective of keeping the rivals out, the government retains power to reject patent and/or to make patented products compulsorily available to users.

One major change, introduced by the TRIPs agreement, has been in relation to product and process patents . In Indian patent legislation a distinction is made between 'product' patent and 'process' patent. The Indian Patent Law of 1970 allowed process patent but not product patent, for food, medicine, agro-chemicals, etc. 'Process' means, say for a medicine, the combination of various ingredients – chemicals, medicinal plants, herbs and other biological products and so on – in specified proportions, and by using a technique or a way of combining those, that makes the production of such medicine possible. It was, therefore, possible for an Indian pharmaceutical company to buy a 'process' of making a particular medicine, in exchange of royalty paid to the patent-holder in a foreign country, but then to produce the medicine by using cheap, local material. This way life saving drugs can be sold in India at a price that is one-twentieth of their price in the developed countries.

Now under Article 28 of the TRIPs agreement this distinction between 'process' and 'product' patent has been abolished. It is the product that is patented, while the process directly used for making that product is also implicitly patented at the same time. After 2005 AD, when the deadline of TRIPs expires and the Indian law is amended accordingly, the 'product' cannot be made locally with cheap materials, and will have to be purchased from the foreign companies at exorbitant prices. As Economic Commission for Latin America and Caribbean commented: "The rules on intellectual property are a particular cause of concern, since they may raise the prices of medicines and other patented products in the short run, but may also limit access to new technologies in the longer term" [ECLAC 1994: 44]. As another expert commented: "As for the impact of life patents on the welfare of third world farmers, it is evident that patented agricultural technologies (seeds, biocides, etc) will increase production costs" [Vellve 1989].

Another controversial provision of TRIPs (in Article 34) is to reverse the burden of proof: it is for the defendant to prove that an identical product has been produced by a process other than the patented one. This violates one of the cardinal principles of Anglo-Saxon jurisprudence, that a person is presumed innocent until found guilty. Thirdly, under the Indian patent law the maximum period for which patent right can be exercised is 14 years. Now TRIPs has made it uniform and universal at 20 years. This change has come at a time when there are weighty arguments for doing just the opposite – of revising the period of patent rights downwards. These days, technologies change much faster in a matter of three or four years. To give an example, while radio and gramophone lasted for decades, the black and white TV, coloured TV, cable TV, VCR, multimedia, have come in quick succession, after every four or five years. In this situation, by the time the patent period of 20 years expires, there would be no takers for the obsolete technologies. Even computers do not last beyond 4-5 years, while software packages are revised every two years or so. To revise patent period upward to 20 years now implies that the MNCs would continue to control technological advance forever. These MNCs have sufficient money power and brain power to invest in research and development and to perpetually maintain their lead over the less developed countries, so that long before one period of patent would be over another – better and more attractively packaged – product would be launched catering to similar needs.

Fourthly, whereas life forms are not patentable under the 1970 law, after it is amended in line with the TRIPs agreement, by 2005 AD, it would have to provide patent protection for the plant and animal varieties or to take recourse to a *sui generis* system that would serve more or less the same objective [Schott 1994: 118-19]. *Sui generis* means something unique or distinct, but serves the same purpose. Among the rich countries nearly all, including the US and Japan, opted for patent system in case of plant and animal varieties. The European parliament was the last, as late as May 11, 1998, to adopt patents on life when a new law on patents on biotechnology was passed. The Indian government is also thinking along those lines.

Transitional Rules

While the amendment of patent legislation for pharmaceutical and agricultural chemical products can wait until 2005 AD, certain transitional changes were required to be made by the signatories to the Marakesh agreement before they joined the new international trade organisation – World Trade Organisation (WTO) that had replaced GATT from January 1995. Under transition rules they were asked to set out application procedures as if such protection were already available. After the transition period had expired, those countries were expected, under Article 70.8 of the TRIPs agreement, to grant applications that were filed during the transition period patent protection for the remainder of the patent term, counted from the filing date. In addition, under Article 70.9, such countries were required to grant exclusive marketing rights (generally for five years) until a decision was made on the patent application, if a patent application was made and granted in another country [Schott 1994:119].

These transitional rules, which have the effect of virtually negating the 5-11 years time periods allowed to those countries, generally came to be known as exclusive marketing rights (EMR) and mailbox (or pipeline protection). Under EMR, it would no longer be necessary for a patent-holder to apply separately to each country for patent rights. Once a product is patented in any one country, it becomes automatically and universally applicable to all the member countries of WTO, even without any examination of the validity of their claims – in terms of their novelty, non-obviousness and having practical use – by the country/government concerned. Nor would the country/government be permitted to impose conditions that safeguard the interests of the domestic industry, e g, by way of compulsory licensing rights. Every country is bound to give exclusive marketing rights to that patent-holder, who has obtained patent anywhere in the world, as long as that country is a member of WTO. In other words, patent-holder is going to have a lethal combination of two types of monopoly rights arising from patents and EMR. Given that the overwhelming majority of patents are owned by the rich countries, the benefit would accrue overwhelmingly to the multinational companies of rich country origin, and indigenous products would be driven out of the markets of the poor countries like India, e g, Indian basmati.

The mailbox provision – meaning an arrangement for receiving patent applications, mainly from the multinational countries – assumes that our patent law would be amended by the year 2005 AD, and under this the government will begin receiving patent applications in order to determine the position of a company in the queue. This is an extraordinary piece of legislation that is based on the probability of the passing of another legislation in some future date.

IV
Issue of Biopiracy

A major issue concerns patent rights on seed varieties. Under the TRIPs agreement, plant varieties are expected to be protected in one of the following three ways – by patents, by a *sui generis* system, or by a combination of the two [Dasgupta 1998:173-74].

Ever since the conclusion of the Marakesh agreement, prompted by this provision, there has been a mad rush from the large multinational firms to collect germplasms of wild plant varieties located in the less developed countries. Hordes of such multinational agri-business and pharmaceutical firms are descending on India and other countries that are economically poor but rich in biological wealth, and are scouring the countryside, forests and bushes for plant varieties. These MNCs are taking selected specimens out of the country, by means legal or illegal, and then, after some tinkering and cross-breeding with other varieties, producing new varieties that they are claiming to be unique and distinct, and then patenting those in their own countries. Once patented such varieties become the private property of the patent-holder until the time when the patent right expires. Under EMR, if the amendment discussed above is passed, the patent-holders of a product patented anywhere in the world would drive out indigenous competitors from the Indian market.

This process of stealing and plundering the biological wealth of the third world countries, which accounts for nearly two-thirds of the total, by the multinational firms originating in the west, has come to be known as 'biopiracy'. The countries rich in biological wealth and poor in economic terms account for top ranks in terms of mammal, bird and plant varieties. India figures eighth in rank in terms of both mammal and bird species, but no developed country figures among the first eight [Swanson 1997:47]. Countries topping these lists, such as Indonesia, Brazil, Peru, Mexico, or Columbia, are also ahead of the developed world in terms of diversity of plant variety. Since 1971 a network of gene banks and international centres for the assembly of germplasm collection is operating, and by mid-nineties the number of such centres became 227, spreading over 99 countries that account for 90 per cent of landacres of such crops as wheat, corn, oat and potatoes [Swanson 1997:101]. But this does not take away the need for the conservation of plant varieties *in situ*. *Ex situ* preservation is possible only for a fraction of the species, and preserve selected species not the ecosystem, and thus risks the loss of species that are reliant on the symbiotic relationship within an ecosystem [Sedgo and Simpson 1995:81].

The most talked about case of biopiracy has been the patenting of neem tree, which is a part of the Indian folk culture and whose medicinal and other properties had been known to the Indian people from time immemorial. Nor is such patenting confined to Indian medicinal plants: e g, the male sterile variety of Quinon, a high protein cereal of Andean countries was patented in the US in 1994, though it was only a discovery [ECOBP 1998:4]. The irony of such patenting is that patented products, processed by the foreign companies, would now have to be purchased by Indians who are used to getting those free in nature [Shiva and Holla-Bhar 1993]. Similar patent rights have been claimed on other medicinal plants – e g, haldi, salal, dudhi, gulmendhi, bagbherenda, karela, amla, jar amla, anar (pomegranate), rangoon ki bel, castor, vilayeti sisham, chamkura [Shiva 199:7] – whose properties had been known to Indians, as in the case of neem, from time immemorial. However, in case of haldi, another highly important plant with medicinal properties, the US medical school was forced to revoke patent on its use for healing

wounds, in 1987, after Indian protest [ECOBP 1998:4].

Recently Ricetec, a Texan seed breeding company, collected some specimens of the Basmati rice plants from India and Pakistan, then cross-bred those with some high-yielding varieties, and claimed that it had produced a new rice variety. Earlier they were selling their products as 'Texmati' (that is Basmati of Texas) or 'Kasmati' (Basmati of Kashmir), playing on the word 'mati' to attract consumers. Now they have dropped those pretensions and are selling their rice as 'Basmati' and have patented their product in the US. Similarly, patent rights have been claimed on neem and haldi among others. Under EMR, they would be able to push Indian Basmati out of the Indian market itself.

This company is making two contradictory claims: first, what they have produced is unique, non-obvious and of practical use, and distinct from Indian and Pakistani Basmati, which justified their patent application, and second, their variety is a exact replica of Basmati when it comes to taste; one eating their Basmati rice would not know the difference between he two. However, the claim that the Ricetec Basmati is novel can only sustained on the ground that it can now be grown outside India and Pakistan. While Ricetec claims Basmati-867 is an 'instant invention of a novel rice line', in fact it only made use of conventional breeding methods [Shiva 1998b:4]. The company's claim that the invention "is based on the surprising discovery that certain Basmati plant and grain characteristics and aspects of the growing environment for traditional Basmati rice lines are not critical to perceived Basmati product quality by consumers"is equally dubious [Shiva 1998a:2].

The developed world doublespeak is also revealed in the way they refer to the 'common heritage of mankind' [Lesser 1991:64]. The developed countries demand that all germplasms be recognised as a public resource and a part of the heritage of the mankind. That would give them the right to collect germplasm in the wild or as landrace varieties without compensation on the ground that these belong to the 'common heritage of mankind'. But, after improving the variety through research and experimentation, they do not hesitate to sell these against payment to countries including those from which such germplasm had been originally collected [Lesser 1991:64]. This attitude of developed countries has led the less developed countries to make two specific demands: first, that the companies collecting those germplasms should pay to the local communities to which they belong, and, second, in line with the 1993 convention on biodiversity, these should be treated as coming under the sovereign right of a nation and not as something 'international' and belonging to nobody in particular [Lesser 1991:64].

One way of countering this type of biopiracy is to take resort to the concept of 'prior art', i e, some evidence that what is being claimed as 'novel' in the patent application was known already. The major difficulty here is that the US courts insist on documentary evidences of such 'prior art' that is difficult to find in a society where 'oral tradition' dominates. Another solution to the problem of biopiracy that suggests itself is to patent the Indian plant varieties in India itself, before it is done by anyone else and thus save them from poaching, ie, to play the game by the rules of these predator firms, but quickly and more efficiently before further damage is done. The snag in following such a step is that patenting involves individualisation of rights, whereas plant varieties like those relating to neem, haldi or Basmati were evolved by a large number of small communities of farmers, spread over a large area, working collectively and sharing their discoveries with others, and over a period of several centuries. How would one find the 'owners' of those plant varieties in terms of intellectual property rights, when all those who played some role in their development – through selection and adaptation of plant varieties, but without erecting any barrier to the flow of information within or between these communities – constituted what could be described as, following Vandana Shiva, 'Intellectual common'?

Many argue that life cannot be patented, or otherwise subjected to individual ownership; companies like Ricetec are not 'inventing' anything, but are merely 'discovering' what had been known in India or Pakistan from time immemorial. These are not like machines to be invented, but life forms that cannot be created. Rights on those varieties belong to these communities. Obviously communities, working separately and independently, cannot exercise their rights on their own and protect varieties against agencies such as MNCs, which are out to encroach on them. In a sense the government of a country is sovereign as the custodian of the interests of these communities and the individuals. Several UN resolutions, such as the 1975 UN resolution on 'Towards a New International Economic Order', and the 1993 Convention on Bio-Diversity had recognised these rights of the governments over natural, mineral and biological resources.

One opinion is to work out a balance between the right of access by foreign firms, for the purpose of what they describe as 'bio prospecting', and the recognition of the right of the community to this biological resource. About a quarter of the pharmaceutical products marketed by the US firms are plant-derived, but the communities remain unpaid despite such massive use of their resource. Some would prefer some compensation, or benefit-sharing or royalty to be paid for this use to the community [Swanson 1997:103]. Some others are sceptical that adequate compensation can be estimated or paid given the gross disparity between the two sides – the community and the company in terms of resources, knowledge and influence.

On the other hand, there are those who feel that, without some form of recognition of individual rights – in the form of patent or some *sui generis* system – given the international climate, India would lose out. The international climate was not that unfavourable until recently as, unlike the US and Japan, Europe did not recognise patent on life form. The European patent law under Article 12(1a) excluded for ten years from joining convention, food and pharmaceutical products as such and horticultural and agricultural processes in general [Armitage and Davis 194:12]. India and other third world countries could seek and possibly obtain the powerful support of the European countries during TRIPs review in 2000 AD. Patent laws in every European country, based on European Patent Convention (EPC), excluded in absolute terms patents on plant and animal varieties in order to preserve free access to research and develop a diverse range of options [ECOBP 1998:5]. But as the following account would show, India made no attempt to take advantage of the European position, and now Europe too has followed the line of the US and Japan by patenting life form.

Debate in European Parliament

The climate of opinion changed in Europe in 1997, mainly under pressure from its own pharmaceutical and biotechnology industries, that without patent on life form Europe was falling behind the US and Japan. In August 1997, a directive (which is the name of European legislation) was drafted by the European Commission, accepted by its council of ministers and then forwarded to the European

parliament. As it is the practice in the European parliament, this directive was subjected to two readings. During the first reading, those members of European parliament (MEPs) who were in principle opposed to patent on life found many allies and together moved many amendments. Of these 66 were accepted by the European parliament, including one (known as Amendment 76) against biopiracy [ECOBP 1998:1].

Amendment 76 required evidence of compliance with legal access and export provisions in the country of origin of the genetic material, where animal or plant genetic material was used in a patent application [ECOBP 1998: 3]. Though far from perfect, this amendment was the best that could be achieved under the circumstances, according to those opposing biopiracy. If the amendment was passed, it remained within the rights of the Indian government to legislate on export of genetic material that could stop biopiracy as far as Europe was concerned.

When this amended directive was sent back to the European Commission and council of ministers, the latter accepted 65 out of those 66 amendments, but changed those beyond recognition while revising. The amendment they did not accept was the most crucial one from the Indian side, i e, Amendment 76 on 'biopiracy'; the Commission's view being that it was already incorporated in the recital that the directive would comply with CBD and that nothing more was needed [ECOBP 1998:3].

Among the countries Italy voted against this attempt to legalise biopiracy, the Dutch and Belgian governments abstained, and while the Danish government did not oppose it in the council of ministers though its MPs were opposed to biopiracy. Among the political formations, the Left-wing and Green parties opposed biopiracy, while the socialists were divided almost right down the middle. To get the amendment through during the second reading 315 votes were needed, while those opposing patents on life or at least wanted biopiracy to be stopped, had about 286 votes. It was a matter of influencing 30 odd votes.

In the last week of April 1998, the author and Indira Jaisingh, a prominent lawyer of the Indian Supreme Court, went to Brussels at the invitation of the Dutch coalition against patents on life and Gaia foundation of London, and met a large number of MEPs. While we could identify a core of committed MEPs who were strongly opposed to biopiracy, some others expressed reservations. Some of them were saying, rather apologetically, that Europe had to survive in a competitive world with the US and Japan, and had to have something in place to counter the US and Japan. Some were sick and tired of discussing this issue again and again, did not care about what the final outcome of the debate was going to be, and were keen to get this directive out of the way. Some asked why should we, from outside Europe, be so interested in an European legislation, when our first priority should be to have good legislation of our own against biopiracy. We pointed out that even with the best legislation in the world, that Indian legislation would only protect our interests within the country, while what was happening in Europe and the US would influence our exports.

Before going to the European parliament, the amended directive had to go through the subject committee, the committee on legal affairs, and not by committees on development (whose chairman Rocard, a former prime minister of France, assured us that in his committee the deliberations would have been more substantive) or agriculture. However, both Jaisingh and I were allowed in during discussion in that committee. The chairman formally noted our presence and quite a few participants in the meeting referred to our presence and to the note we circulated among MEPs. But the discussion was purely technical and legal in nature, did not touch the substantive issues, and at the end all the amendments suggested by those wanting to stop biopiracy were defeated. Rotley, who piloted this directive through the committee said that what Ricetec had produced was something different from Basmati and therefore was patentable; what was debatable was whether the name Basmati should have been given. But then, he added, it was a matter of bad luck that India did not protect its name and so allowed the name to be patented.

It has been argued that here the issue is not only on geographical indicators (such as the case with champagne in France or Darjeeling tea in India). Geographical indicators will only prevent the use of name Basmati, but will not prevent patenting based on our Basmati. It cannot be done with thousands of varieties that are grown over a large area [Shiva 1998b:3]. According to the US case laws, once a patent is granted for a genetic trait (say aroma) all occurrences of that trait will be considered an infringement irrespective of how they came to exist. A 1985 judgment allowed Kenneth Hibberd to exclude others from using 260 aspects of tissue culture seed and whole plant of a corn line selected from tissue culture. With this judgment, a judicial framework was set in place that allowed the seed industry to claim royalties from farmers planting saved seed, as patents cover regenerative capacity of the seed to make new plants. Another 1994 judgment, Imagio Nursery vs Daina Greenhouses, ruled that a plant patent can be infringed by a plant that merely has similar characteristics [Shiva 1998a:2].

It was clear from the responses that most of the MEPs had been subjected to intense lobbying from MNCs of agri-business and pharmaceutical varieties, far exceeding what could be doen by the Left and Green parties and NGOs concerned with environment and the role of MNCs. They even organised front groups: such as patients of difficult diseases, sitting in wheel chair and chanting 'no patent, no cure', conveniently ignoring the fact that for the vast majority in the poor countries like India patents would imply a 20-fold or 30-fold increase in the prices of life saving drugs [ECOBP 1998: 1]. One major reason for this hightened interest in patents on life is the success with biotechnology and genetic engineering in recent years. and the possibility that the later has created to transfer genes between unrelated species. We are refraining ourselves from that discussion as it would take us away from the issues we are focusing here.

European Debate and India's Inaction

Our impression was that a strong intervention from the poor countries led by India, preferably jointly by India and Pakistan, the two lands of traditional Basmati, could have just tilted the balance in favour of this amendment on biopiracy, as the difference between the two sides was not large, a matter of around 30 votes. However, the Indian embassy at Brussels did not seem to have the faintest clue of what was going on. The ambassador agreed to send my faxes to the prime minister and the ministers in charge of agriculture, industry, commerce and external affairs, urging immediate and strong intervention, as the time was running out.

When I returned to India on May 9, the minister of agriculture Sompal, whom I had known for a number of years, informed me that my fax indeed reached the government on April 29, but during the intervening ten precious days nothing was done except that he had circulated my fax to all the ministers seeking their opinion. The minister of industry, Sikandar Bakht, whom I hold in high regard despite serious differences in political perspective, was

somewhat more positive and wrote to me saying that instructions on the lines suggested by me had been sent to our embassy in Brussels in order to mobilise opinion among MEPs. That letter was dated May 9, too late for any action to have effect on deliberations in the European parliament on May 11, the day the biotechnology bill with no safeguards against piracy was adopted. As a matter of coincidence, this was also the day when nuclear test was conducted at Pokhran.

Sui Generis, Plant Variety Legislation and UPOV

As things stand now, following the TRIPs agreement, India will have to provide patent protection to plant varieties by 2000 AD, or choose a *sui generis* system, or a combination of both. *Sui generis* system is something that is unique, that a country has adopted on its own, but which provides protection to plant varieties. This provision sounds quite generous, but when it comes to brass tacks, it does not make much difference from the patent system. As in the patent system, the understanding in fund-bank-WTO circle is that *sui generis* too would allow for individualisation of rights on plant varieties. Establishment or private property in village common, water, plant and other major inputs of agriculture, and even on national parks and highways, in place of communal ownership, is considered by this trinity to be essential for safeguarding environment. A combination of privatisation of rights, appropriate pricing that reflects the scarcity value of a product, and an efficiently functioning market, they claim, can solve all the environmental ills. Since we have elaborately discussed this issue elsewhere, here we are desisting from engaging ourselves in an analysis that would show why this view is wrong, and is indeed dangerous to our biological wealth [Dasgupta 1998:215-27].

One alternative usually suggested in India, as a kind of *sui generis*, is to adopt UPOV (International Plant Breeders' Rights Convention), a soft patent regime that arose from an international convention in 1961, supported by 37 countries [Lesser 1991:17-19; Gaia 1998: 1]. UPOV was twice amended, in 1978 and again in 1991, and the option to join the 1978 option closes in April 1999. The official arguments given in support of UPOV are as follows: (a) that it would give the country two alternatives – UPOV and WTO-led TRIPs – to choose from, (b) that this would encourage investment in plant breeding from domestic and international sources, as breeders would get protection with minimum formalities and costs, and (c) that it would help to avoid numerous bilateral agreements, while the need for a *sui generis* in place of patents would be satisfied.

A major criticism of UPOV is that it protects the interests of the plant breeders, by giving it monopoly rights that are analogous to patents, while ignoring those of the farmers and making those secondary to the former. Under its 1991 version, if the farmer fails to pay royalty his harvest can be seized by the breeder. The right of the breeder over the plant variety is an individualised one, while the community rights have been ignored and the right to reuse and exchange seed by the farmers has been severely restricted. UPOV too is in conflict with CBD, as uniformity of seeds is a criterion for the recognition of the rights of the breeders [Gaia 1998:5-11]. A major reason for concern is that already 40 per cent of the seed market is in the hands of ten companies, and UPOV might reinforce this tendency towards concentration. This would give MNCs legal ownership of plant varieties that contain genetic information obtained from farmers' own fields, obtained in many cases without paying any fee [Gaia 1998:7].

There are complaints that plant breeders are charging high prices under UPOV. This international agreement has allowed plant breeders to claim exclusive marketing rights in varieties developed by them by crossing the previously existing ones. This has revealed a serious dichotomy – whereas access to raw germsplasm, gathered from the poor countries and stored in gene banks is virtually free, the improved germplasms patented in the rich countries by rich country companies are being sold to the less developed countries at high prices [Swanson 1997: 102]. This controversy led in 1986 to the less developed countries seeking recognition of 'farmers' rights', and for an international mechanism to give effect to it, though so far nothing concrete has been done to achieve this [Swanson 1997:102].

Bio-Diversity Legislation

A bio-diversity legislation is expected to fulfil two requirements: (a) conforming to Convention on Bio-diversity (CBD) of 1993, and (b) safeguarding Indian biological wealth against bio-piracy. The first draft prepared by the ministry of environment, after wide consultations, was brushed aside and a new draft was prepared on the basis of the report of an expert committee, headed by M S Swaminathan, the famous agricultural scientist. The draft gives easy access to foreign firms, including those to 7,500 highly valued indigenous medicinal plants, in exchange of a fee to be paid to the community in the name of 'benefit-sharing'. Though it is projected as an attempt to balance the rights of the foreign firms to have access with those of the communities where such plant varieties are located, as in most other cases there can be no level playing field between the two sides. The idea of benefit-sharing would allow the all-knowing and powerful multinationals to pay a small amount to the innocent and unknowing communities having no idea of the economic price of their resources, in order to gain the right of 'bio-prospecting' and thus to arrogate to themselves the rights of these communities. In the long run, this benefit-sharing might force India to pay out a great deal more in the form of royalties for buying those plant varieties, now patented elsewhere, than what the country would obtain from such paltry 'compensations' [Shiva 1998b:2]. One suggestion is to force the companies concerned to compensate the farmers from a fund created from royalties earned from such patents by the companies [Lesser 1991:64].

Further, this draft does not explicitly recognise communities, but talks about 'persons' with whom benefits would have to be shared by the companies. The amount of compensation for access to be paid by the foreign companies would be decided by a national bio-diversity authority to be set up under the bill. It also stands in contrast with an article in panchayat (extension to the scheduled areas) act of 1996 that provides that state legislation should be in tune with traditional management practices relating to community resources. Worse still, it does not explicitly take into account national sovereignty and indigenous knowledge, and in the name of conservation, might even be used (as in the case of forest legislation) to deny access to the local communities.

Role of Multinational Agri-Business Firms

In India most people have no idea about how powerful, and how potentially harmful, these multinationals are. These are very large entities, the largest among them having annual turnover figures that are close to the national income of a country as big as India with 96 crore people. They offer the highest salaries and, therefore, attract the best of brain power in the world: engineers, mathematicians, chartered accountants, managers. Because their tentacles are spread to practically all the countries of the world, through affiliates

and subsidiaries, they aim at profit maximisation at the global level, often at the cost of the interests of the host nations, and can effectively hide their illegal transactions in terms of 'book-keeping' transfers between affiliates [Dasgupta 1998: 195-203].

They also operate vertically – in case of an oil company, from searching for oil to its marketing through development, production, refining and transporting – and also horizontally, in collusion with other oligopolistic corporate giants operating in their fields. Empirical evidence amply confirms their shyness in transferring technology or in bearing risk in entirely new areas. The Indian enterprises would be no match for them in competition, and there could be no level playing field between these giants and the Indian dwarfs, as observed by Mahatma Gandhi in another context [Dasgupta 1998: 195-203].

The new patent regime would provide them with monopoly to sell their commodities in Indian market, and no Indian or competing foreign enterprise would be able to market those in India. Product patent rights together with the monopoly marketing rights in the hands of the multinational companies would become a lethal combination that would destroy Indian industries and eliminate any hope of achieving self-sufficiency or development. The period of patent – 20 years – would be too long and by the time it ended, the multinational companies would be ready with some new, more fashionable, more attractive and more user-friendly product to reduce the release of patent right to a matter of no consequence. In east Asia the governments carefully kept these predators out of the way of the nascent indigenous enterprises in the same field, by invoking 'local content requirements' that made heavy demand on the foreign enterprises in terms of deployment of local manpower, material and so on, or by high tariff, prohibition or quota restrictions. Such local content measures cannot be implemented now by India, as trade related investment measures (TRIM) under Marakesh agreement rules out these measures and demands that the foreign companies be accorded 'national treatment' and no discrimination be practised against them.

Even during the British colonial rule the British economic interests seldom directly participated in agricultural production, except in plantations located in sparsely populated areas. Now the multinationals are planning to enter India's countryside in a big way, by taking part in wasteland development and also by linking their processing activities (e g, with respect to tomato) with direct agricultural production. As they have done in other countries, they will follow two parallel systems – plantation and contract production. In plantations they will work with their own hired labour, while under the contract system they would give inputs and technology to the contract farmers, would expect them to operate under their specification and norms, and to deliver their products to the company. The prices of both inputs and outputs would be determined by them and imposed on the farmers, who would lose their independence.

Supply of Terminator Seed and Other Inputs

Apart from production directly linked to processing, for the rest of the agricultural economy the multinational agribusiness firms wish to become the main supplier of seed and other inputs. Here too they would try to make the farmer completely dependent on their supply. Recently, these agri-business companies have developed what is significantly known as the 'terminator technology'. This technology makes the seeds sterile, i e, incapable of being used for the second time for germination. The objective behind developing this technology is not to allow the peasants to use the same seed again and again and to force them to go back to the multinational companies for new seeds every year. While agriculture is synonymous with regeneration, renewal and reproduction, this technology strikes at the base of such predominant features of agricultural life making seeds infertile and unsuitable for multiple use. More dangerous is the fear that, even in cases of those who do not use this 'terminator' seed, pollens from the latter would spread over a very large area and would make even other seeds infertile.

Apart from the terminator technology, those relating to fertiliser and chemicals are also making the peasants further dependent on MNCs for supply in place of self-reliance practised in the past. They are developing weedicides that are specific to a particular seed variety that it would not harm. Such weedicides would make it possible for the farmers to spray chemicals even when the crop is standing. Similarly, fertiliser and pesticides specific to a particular seed variety is being produced. In other words, the farmer would be forced to depend exclusively on a package of seeds, chemicals and fertilisers supplied by a particular MNC.

Over time, the concerned MNC, by investing an enormous amount on R and D, will do everything to make the peasants perpetually dependent on it, by producing new packages every few years. As we have noted, in the background of the spate of suicides in Punjab and Andhra Pradesh many chemicals are spurious and adulterated. Yet, MNCs push the farmers to use these chemicals more than is good for the plant itself. In the mid-1980s, 30 farmers of two of the most prosperous cotton growing districts of Andhra Pradesh committed suicide because the pesticides killed off the main target pest, which allowed other pests suppressed by the main pest grow at an alarming speed and destroy the crop.

V
Political Economy of Patents: The Indian Experience

Short Term: Transitional Rules on EMR and Mailbox

The patent issue, which has become a highly controversial political issue in recent years, carries both short-term and long-term implications. We begin by examining the short-term ones relating to the transitional rules concerning EMR and mailbox.

These two preconditions for WTO membership were fulfilled by India on January 1, 1995, when it became a founding member of that powerful organisation in a way that became highly controversial. Though the Indian parliament was in session until the early fourth week of December 1994, no such legislation was proposed. But as soon as the parliament was adjourned, the government issued an ordinance that incorporated these two entry conditions and joined WTO from January 1995. Since ordinances are laws as long as these are in force, "having the same force and effect as an Act of Parliament", this measure helped India to satisfy the WTO entry conditions quite legally [Rama Devi and Gujar 1996: 33-34]. The question arose whether it was ethical to bypass the Indian parliament and thus, to avoid national debate on such a major issue by taking recourse to ordinances.

In many countries, including the US, international agreements are required to be placed before its legislature for ratification, and there have been cases where the US Congress had refused to ratify such international agreement. The Havana charter for the formation of the International Trade Organisation, prepared in the late forties and in the early fifties, failed to get the approval of the US Congress, and therefore the idea was

ditched. It was revived in a grossly modified form after several decades, with the formation of World Trade Organisation. The US objection to ITO had something to do with the international trade environment in the early fifties and the role the Soviet Union was likely to play in it. Similarly, the active US sponsoring of WTO had something to do with the fact that the Soviet Union was no more.

The point we are making here is that while the US government cannot participate in any international agreement bypassing its legislative bodies, in India such ratification by legislature is not deemed necessary. In fact, section 102(a) of the US Trade Act states categorically that in case of any conflict between a provision of the Uruguay round agreement and a law of the US, the latter would prevail. Nor would the Uruguay round agreements "limit any authority conferred under any law of the United States, including section 301 of the Trade Act of 1974, unless specifically provided for in this Act". Further, under section 182(4), even when a foreign country is working in compliance with the provisions of the TRIPs agreement, action can be taken against it, under the US trade legislation if the US trade representative finds that it has denied adequate and effective protection to intellectual property rights [Keyala 1998:86-87].

Thus, the US legislation makes it abundantly clear that, in matters of trade, they would be principally guided by their own perception of self-interest, and no international agreement can be imposed on them without their explicit approval. In contrast, the people of India were not a party to the fulfilment of these two preconditions for membership by way of ordinance; they were not consulted. Further, the Indian legislature is being asked to change their domestic laws in line with the provisions of an international agreement without in-depth examination of its provisions to ascertain whether these accord with national interest and without the benefit of a national debate on this.

Devious Means to Get the Bill Passed

However, any ordinance issued by the government when the parliament is not in session is required to be approved by the parliament within six weeks of the next parliamentary session [Rama Devi and Gujar 1996:534]. When the government attempted this, it faced a serious difficulty. While the government had a small but working majority in Lok Sabha (the lower chamber of the Indian parliament) and got the bill validating the ordinance passed, in the Rajya Sabha (the upper chamber) it had no majority. Unlike Lok Sabha, Rajya Sabha is never dissolved, and one-third of its members retire every two years. As a consequence, its composition does not radically change with elections. In 1995 (and also in 1999, more or less) of the three major forces – Congress, BJP and the Left and other parties – any two together was larger than the third. With BJP joining the Left parties and the Janata Dal on this issue, as we have noted already, there was no way that such a bill could be passed.

Given this, the government engaged itself in a series of manoeuvres to secure a majority by hook or by crook. For instance, though the proposed bill on patents was on the list of business of the House for weeks, it was not actually brought before the House for discussion and voting. Then, on March 22, 1995, the item was taken off the agenda, giving the impression that the government was no longer interested in this.

But, on the same day, immediately after a short afternoon break following the conclusion of discussion on another bill, suddenly this bill was put as an additional item on the agenda by a supplementary notice. The government was hoping to catch the opposition by surprise and to take advantage of the thin attendance of the opposition members, many of whom had assumed that the business of the day would be over soon after brief discussion on a less than exciting bill on workmen's compensation. The attendance of the treasury bench was boosted by a promised dinner to be hosted by the prime minister that evening [Dasgupta 1995].

This attempt to get the bill passed failed, as the opposition members went into the well and forced adjournment. Next morning, a meeting of the party leaders was held at the residence of the deputy chairman, where it was argued from the government side that this was an international obligation and, therefore, could not be reneged, while the opposition argued that it was never a party to that agreement as it was not consulted and the matter was never discussed in the parliament. Afterwards, in the parliament, the prime minister Narasimha Rao admitted to a meeting of party leaders that the bill, if presented to the House, would be defeated and there was no way that the ordinance could be validated within six weeks, and sought the co-operation of the opposition in ensuring that the government did not lose its face in the eyes of the world. The formula he proposed was for a leader of opposition to state in the House that they needed time for considering the bill. Some of the opposition leaders did oblige him by saying so in the House, but some others refused. If any one thought that the issue was over, he was proved a fool when in the late afternoon the minister of parliamentary affairs, Vidyacharan Shukla, who was in charge of the bill from the government side, suggested a special session on Saturday to get the bill passed [Dasgupta 1995].

When this attempt too was frustrated, the government agreed to set up a select committee; but then, contrary to convention and an explicit agreement with the opposition, loaded the select committee with more than proportionate number of its supporters. The government then got the list of select committee members passed in the middle of a discussion of a private member's bill on a Friday afternoon, again breaking another time-honoured convention, in a thinly attended House, and taking advantage of the absence of opposition leaders, by deliberately lying to the member chairing the session at that time (in absence of the chairman and deputy chairman), that it was the consensus of the leaders of all the parties. Furious by this dishonest attempt to sneak the bill in, the opposition boycotted the select committee. The ordinance lapsed and the issue was shelved for the time being. Though, later, the select committee was reconstituted in accordance with the demand of the opposition, its work was stalled because of other developments that overtook Indian political scene. By then, the telecom and hawala scandals had stolen the limelight and the election was in the horizon The government, realising this, did not make any further attempt to get the bill passed again [Dasgupta 1995].

From then onwards India was in an anomalous position of having attained the WTO membership by fulfilling the two conditions of EMR and mailbox by way of ordinance, any by not fulfilling those any more as the ordinance had lapsed. Eventually the US government raised the issue before the Dispute Settlement Board (DSB) of WTO, and after lengthy deliberations, where the Indian case was not well presented, DSB gave India 14 months (that is up to April 19, 1999) to amend the national patent bill and incorporate those two conditions of EMR and mailbox in it. This is the 'external compulsion' that the present minister of industry, Sikandar Bakht, who is piloting this bill now, has been referring to again and again in recent months.

April 19 Deadline: Possible Consequences of Its Non-Fulfilment

What are the possible consequences of not meeting the April 19 deadline and leaving the two pre-conditions on EMR and mailbox unfulfilled? In the meeting at the residence of the deputy chairman in 1995, mentioned above, the government side warned that the failure to ratify the ordinance would lead to India's expulsion from WTO. That was untrue, as the entry conditions were not linked with expulsion for non-fulfilment of such obligations at a latter date. One way or the other, India is a member of WTO, and the procedure for expulsion are to elaborate and cumbersome to be tried against India. India cannot be thrown out of WTO simply because of non-fulfilment of transitory rules. Over the last four years no country, not even the US, has proposed India's expulsion.

Secondly, even though economic penalties can be imposed, that too is time consuming and is likely to be as ineffective as the economic sanction by the US after the Pokhran nuclear test. Such sanction is a double-edged sword and is likely to hurt the developed countries imposing penalty as well, the potential of Indian market being assessed highly by the multinational corporations. To impose an economic penalty, a country suffering damage from such non-fulfilment of WTO conditions, say the US, has to apply again to WTO. Under the WTO agreement, 20 days are given for request for retaliation, 30 days for authorising such request, and 60 days for final arbitration, and if all these are taken in quick succession, still it would involve about four months [Schott 1994:127-28]. A team of good lawyers can easily stretch it to one year, the time for the international review of Articles 27.2 and 27.3 in the TRIPs agreement.

The fact is that the US is as keen to retain its markets in India as some others are to take over a part of it, should the US withdraw. Italy under a left-led government, France, Germany and Holland, are among the countries that are likely to take full advantage of US dissociation from the Indian market by way of economic sanction [Mcleland and O'Toole 1987:246]. This is precisely why in spite of keeping India at least thrice on its Super 301 hit list for failing to open the insurance market to US multinational companies, the US did not carry out the threat of economic sanction. Further, though India has failed to fulfil WTO preconditions for membership since April 1995 for four years, no action has been taken so far.

One can also add that, among all countries, the US is by all counts the most serious violator of GATT/WTO rules. At the time of the establishment of WTO along with its procedures for multilateral sanctions, it was expected that these would obviate the need for the US to rectify its grievances through unilateral actions. That expectation has been belied. We have already noted that the US has made it abundantly clear that the decisions of WTO would not be binding on it, and Super 301 as also Special 301 (actually Section 1303 of the US Trade Act that is specific to intellectual property rights), both of which had always been in gross violation of GATT norms, would continue to operate alongside sanctions by WTO.

Of course, theoretically, countries adversely affected by the US violation of WTO norms would have the right to retaliate against the US under the WTO rules, but such right can never be meaningfully used given the wide disparity in their trade powers. As one scholar commented: "most countries simply do not present the US with a credible threat of retaliation; the US market is too important for them to risk". In sum, the WTO can reprimand but not severely punish violations by major trade powers. "When they regard it as necessary, big countries can still abuse the system". such inequity is built into the trade system now controlled by WTO [Low 1995:64: Schott 1994:129-31].

BJP Government and the Changed Political Scenario

For nearly four years the patent issue remained frozen as the Indian political system went through a number of experiments, particularly the two-year rule by United Front some of whose major constituents, the left-wing parties in particular, were hostile to any idea of amending the patent legislation to conform to WTO requirements. The accession to the government by the BJP and its allies in 1998 after a general election created a new situation since now the BJP, who opposed the transitory rules in 1995, was in the government and therefore, was under strong pressure from WTO, World Bank and IMF. While in 1995 Atal Behari Vajpayee walked out of the Lok Sabha along with other non-Congress opposition party members in protest against the passing of this bill, in 1998 he, as the prime minister, was keen about fulfilling what he describes as the 'international obligation'. Further, while in 1995, with the Congress in the government, the main opposition party, BJP, opposed the bill, this time, the Congress, the main opposition party, was supporting bill and appeared to be more enthusiastic than the government itself to get the bill adopted by the parliament. With the support of the government and the main opposition party behind it, and given the arithmetic of the parliament, there can be no question this time of the bill being defeated in either house. Yet, the questions remain (a) why BJP changed its position, and (b) why Congress is so keen to see the bill through.

As for the first question, this confirms once again that when it comes to class issues as reflected in the economic policies, there is nothing to choose between the two major parties, both reflecting the interests of landlord and bourgeois classes. Both are united in not allowing the long pending agricultural workers' bill to be passed or land reform to be carried out, and are seeking to convert Foreign Ex-

change Regulation Act (FERA) into innocuous Foreign Exchange Management Act (FEMA) that makes violation of foreign exchange regulation a mere civil offence, and to pass a money laundering bill that takes no account of over- and under-invoicing and Hawala or Bofors type issues. In recent months the BJP has been busy completing the tasks of globalisation left unfinished by the previous the Congress government – such as the bill to allow privatisation and internationalisation of the insurance business, to permit Enron and other power companies' guaranteed profit, and to reform Companies Act and various labour laws.

Such developments also demonstrate that the slogan of 'swadeshi' was a gigantic hoax. Immediately after the 1998 election, the new finance minister was sent to Washington to assure the global superpower that swadeshi was an election gimmick and was not meant to be implemented, that they would continue with Fund-Bank 'reform' package, and that they would not allow anything to stand in the way of globalisation, and indeed would expedite globalisation. During the period immediately following the Pokhran nuclear test – when the full throated public rhetoric of swadeshi, 'maryada' and sense of national dignity was jarring the ears – the BJP government began giving large concessions to US, Japanese and British multinational companies so that they would induce their own governments not to implement, and eventually to withdraw, economic sanctions against India.

However, BJP as a party was far from united on this issue. Interestingly, the least socially tolerant and RSS-inspired element within this party, mainly those associated with the Swadeshi Jagran Manch, articulated their worry about the possible harmful impact of globalisation by way of patent and insurance bills on the indigenous industry almost in a way the left parties were putting forward their views. They expressed their opposition to the amendment bill – inside the party as also by way of their utterances and behaviour outside – during December 1998 discussion in Rajya Sabha. Even after the bill was passed in the Rajya Sabha on December 22, 1998, they induced the government not to present it before the Lok Sabha, the other chamber of the Indian parliament, for approval on the 23rd, the last day of the winter session, as they thought that more time was necessary for a careful consideration of the bill. Since then, over the next four weeks of so, they have been won over, mainly on the ground that not supporting the government on this bill would make the government lose face both within and outside the country and would expedite the downfall of a government already crippled by dissension within the coalition.

Rationale behind Congress Support

The Congress, though the main opposition party, has been visibly more keen to get the bill through than the government itself. At one stage in the last week of December 1998, the BJP minister of parliamentary affairs, Madanlal Khurana, told the press that the bill would be sent to a joint select committee for a detailed examination of its clauses as demanded by the Left and Democratic parties, but within half hour that decision was reversed. The minister explained this volte-face in another hurriedly called press briefing that the bill would not be sent to any committee but would be passed directly by both, as the Congress, its ally in the endeavour to get this bill passed, was against sending it to any committee.

The senior leaders of the Congress Party feel that BJP's 180-degree turn on the bill has exposed its opportunism, and has provided them with considerable electoral advantage. Further, their leaders see it as their own bill that they could not get through in 1995 because of Left-BJP opposition. Their own support for the bill demonstrates their consistency, as opposed to the opportunism of the BJP. Moreover, following their good showing in the mini-general election in four states a few months back, they are sensing victory in the next general election. They would now like the BJP to do all the 'dirty work' for them, such as getting the controversial bills on patent and insurance passed. That would enable them if they win, to begin with a clean deck, while blame would be put on the BJP for sponsoring these bills and getting those passed.

There is also another Machiavellian angle in this. The Congress knows that once they are in the government and the BJP is pushed to opposition ranks, there is every likelihood that the BJP would again take the side of the other opposition parties and defeat this bill. The only way this bill can be passed, they feel, is by the BJP being in the government (as Sikhandi of Mahabharata) and being supported by the Congress from the opposition on this issue. This consideration has raised suspicion, quite rightly, in a section of the BJP, that once the bill is out of the way, the Congress would do everything to bring down the BJP government, which is not a difficult exercise. One argument making rounds in the BJP circles is that this bill is the lifeline of the BJP government. As long as the bill remains hanging, the Congress would not do anything to bring the government down. This was possibly one of the reasons why on December 23 the BJP government did not place it before the Lok Sabha for approval and allowed the session to come to an end.

Obviously there was dissension within the Congress too. While leaders like Manmohan Singh and Pranab Mukherjee were pushing hard to give full support to the bill, the official spokesman of the party, Ajit Jogi, said repeatedly until the morning on December 22, that the party had taken to decision. Some senior Congress members introduced important amendments to the bill, and one of them had to be shouted at by the party chief whip to dissuade him from formally moving an amendment on the floor of the House. At the time of writing this paper, the leaders of both of these two major parties seem to have succeeded in bringing their houses into order: the BJP leadership saying that the prestige of the government is at stake and the Congress leadership saying that (a) it is their bill that BJP is moving, and (b) the party is committed to globalisation in this form. It is more than likely that no flag of revolt would be raised during the budget session in February when it would be placed before the parliament for approval.

The Left and Other Opposition Parties

There is no ambiguity about what the left and other non-Congress opposition parties wanted. First, they demanded that this bill should be sent to a select committee of Rajya Sabha, or to a joint select committee of the two houses of parliament, or to a standing committee. Despite WHO pressure, these parties argued, there was no need to rush the bill through the parliament in December 1998. The winter session continued until December 23, but the parliament would again meet in the last week of February, and the intersession period could be fruitfully used to consider in detail the highly complex issues that were arising with regard to this bill by referring it to a standing committee or a select committee. The committee system was introduced in order to enable clausewise and in-depth examination of complex bills. The committees can invite experts and seek their help in their deliberation and can give a considered view in the form of a report.

If there was any bill that fully qualified for such examination, they argued, it was the patent bill and, for a number of reasons. First, the bill is loaded with legal,

technical and economic jargons that only a few parliamentarians would be able to follow by simple reading. Secondly, this bill carried serious long-term implications, and was likely to influence in a massive way the course of development in the years to come. When so many bills are sent to such committees, it was ironical that the government was unwilling to subject this bill, perhaps the most important of all, to clausewise parliamentary scrutiny by any committee before taking the final plunge. Not only the government rejected such demands from non-Congress opposition, they were not willing to allow more than two hours of discussion on the bill on the floor of Rajya Sabha, though eventually they were forced to extend it to 10 hours.

The third major point is related to the centre-state relationship. While 'patents, inventions, and designs, copyright, trade marks and merchandise marks' are covered under item 49 in the union list of the seventh schedule of the Indian Constitution, the two subjects most likely to be affected by the amendments to the patent bill – public health and agriculture – are covered under items 6 and 14 in the state list of that schedule (Government of India 1991). So, the left-led opposition proposed that the states and their chief ministers should be consulted on this bill by convening the meeting of the inter-state council (Article 263) or of the national development council, of which they are members. Not to do that would amount to violating the federal character of the government, it argued. Five chief ministers wrote to the central government seeking such consultation, but evoked no response.

Though the bill this time (1998) got through the Rajya Sabha, the more difficult of the two houses from the point of view of the government, the non-Congress opposition earned a moral victory and further demoralised the BJP ranks, who were already badly divided on the issue. The BJP government decided not to get the bill through Lok Sabha next day, the last day of the winter session. This provided the government with an opportunity, if they so desired, to use the intersession period for a clausewise examination of the bill by the standing committee on industry, which might be asked to give it priority and to produce its report by mid-February, in time for the budget session and long before the April 19 deadline. The BJP government did not make that choice and instead went for an ordinance again. That would imply that they are seeking to get the ordinance ratified, by both the houses, in the budget session beginning in the third week of February.

TRIPs Review in 1999

What should India's position be on this issue? It is possible to take a mini-max approach, striving to undo as much of the damage done to us as possible, while keeping an eye on the minimum that can be achieved even within the WTO framework should a drastic revision of the Marakesh agreement become politically unfeasible. Much depends on the political will of the government. While conforming to the 1994 Marakesh agreement and recasting the domestic patent law in line with the international patent regime, there is some room for manoeuvre by making skilful use of some of the articles of the agreement. Virtually all patent laws exclude mere ideas or theories; patents are intended to apply to the embodiment of those ideas. The national laws can be so drafted that the flow of ideas is not obstructed [Lesser 1991:28].

Further, under Articles 27.2 and 27.3 of the Marakesh agreement, the countries may deny patent protection for reasons of public order, morality or for protecting human, animal or plant life or for protecting environment. Protection can be denied for certain inventions such as those which involve "diagnostic, therapeutic and surgical methods for the treatment of humans and animals, and plants and animals (other than micro-organisms) and biological processes (other than micro-biological processes) for their production" [UNCTAD 1994:189; Schott 1994:118]. Reference to public order and morality virtually permits the member countries to do what they had been doing already, as being acceptable to public morality. 'Immorality' can mean things like obscenity, blasphemy, breach of peace and immoral activities, while the French counterpart of 'public order', 'ordre public' is closer to 'public policy' than to 'public order' [Armitage and Davis 1994:16-18]. The UK used this provision to refuse a patent on contraceptive device twice [Armitage and Davis 1994:29-30]. Until now there has been a tendency on the part of the Indian government to go overboard in their enthusiasm in implementing the Marakesh agreement, e g, on subsidy withdrawal. This tendency has to be reversed.

Under the Marakesh agreement, article 27(3)(b) of the TRIPs agreement was to come for review in 1999. Now that review has been postponed till April 2000. Still it is only about a year away. This review will give the less developed countries the opportunity to rectify at least a part of th injustice done to them during the Dunke negotiations of 1991-93 and the Marakesl agreement of April 1994, and to create momentum for further and more drasti changes in their favour in the future years The bargaining power of the poor coun tries, following the disintegration of th Soviet Union, was at its lowest when th Dunkel negotiations were going on an the third world countries including Indi played virtually no role in pushing thei own interests. Whatever negotiation wa conducted was between Europe and th US, with Japan also playing a vital role Among the third world countries only th east Asian ones – South Korea, Taiwan Hong Kong and Singapore – were con sulted some times, but not India or othe countries. The Marakesh agreement wa imposed on them as a *fait accompli*. B now, in 1999, the world environment ha changed, and the south-east Asian crisi has exposed the hollowness of the theol ogy of the unholy trinity of World Bank IMF and WTO. There is now a greate understanding of the harmful implication of Marakesh and WTO among the thir world countries.

What can India do to rectify the injustic of 1994-95? The answer is that India alon can do little. In world trade negotiations more than the number of countries o either side of the argument, what count is the share of a country in world trade India's share is between 0.5 per cent an 0.6 per cent. At the time of independenc it was 2.7 per cent, that is five times more The long reign of the Congress govern ments over the last half-century has suc cessfully brought down India's share t this shamefully low figure. But while Indi alone can do very little, it can combin with others to do a lot. Rather than bein browbeaten by the US and WTO an folding our knees, the time available no should be used to mobilise opinion amon the third world countries so that the TRIP review of 2000 AD becomes favourabl to the poor countries. India has to play leadership role, a role that India playe under Nehru in the 1950s, and one tha small countries like Sri Lanka o Bangladesh cannot play. Pending tha review, India should not give in on crucial matter like the two WTO pre conditions on EMR and Mailbox, tha will weaken our resolve and bargainin power.

The very first step should be to form South Asian Common Market or Fre Trade Association (SAFTA). During th United Front regime these countries agree to make SAFTA operational by the yea

2000 AD, and a great deal of progress was achieved in terms of identifying complimentary trade possibilities. A major fall out of the mushrooming nuclear cloud of Pokhran has been to undermine the efforts of the United Front government led by Inder Kumar Gujral, both as foreign minister and as prime minister, to build bridges with India's neighbours, leading to the establishment of a South Asian Common Market by 2000 AD. The trust needed for such economic co-operation has virtually disappeared since. Still, there can be no retreat from such a goal. Such customs unions or trade blocks allow, even within the framework of WTO, trade concessions to block members that are not otherwise available. Such advantages are taken by the developed countries that have formed their own trade blocks – such as European Union or North Atlantic Free Trade Association (NAFTA).

There are also similar trade blocks among third world countries, e g, ASEAN of south-east Asian countries, Andean Pact of some Latin American countries, Central American Common Market (CACM), Caricom (Caribbean Community), Mercosur (Mercado Caomu del Sur), and, in Africa, Preferential Trade Area for eastern and southern Africa (PTA), Union Douaniere et Economique de l'Afrique Centrale (UDEAC), and west African states. There is no reason why we should not do what others are doing already, by taking the leadership in forming a trade block of south Asian countries. Once such a block is formed, it will be easier to negotiate with ASEAN, Andean Pact or the Organisation of African Unity (OAU) for forming a bigger trade alliance. Negotiations can also be initiated within fora like G-15, G-77, and with countries like China, Brazil and Russia, as well as the European ones such as Italy, Belgium, Denmark and Holland, to create a new international climate to amend, if not to eliminate entirely, injustice done to the poor countries by way of 1994, Marakesh agreement [Dasgupta 1998:164-65].

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Price and Non-Price Determinants of Rural Poverty

V N Misra

I
Introduction

IT is argued here that the impact of relative prices on rural poverty became non-significant in the recent article by B M Desai and N V Namboodiri (hereafter as DN) (1998b) probably because it is being included in the equation along with the consumer price index numbers of agricultural labours (CPIAL) measuring thereby the inflation in explaining the changes in rural poverty during the period 1961-62 to 1993-94. Similarly, the explanation for significantly negative coefficient for the distribution in ownership of landholdings is rather misplaced, because it did not change during the last two decades. It seems to have been influenced by other factors included in the equation. Further, it is difficult to rely on the ranking among variables based on standardised coefficients due to the non-inclusion of the most important variable like real agricultural wages capturing the impact of rural labour market on rural poverty in the explanatory framework. As a result, the various trade-offs regarding policy issues based on the coefficients are likely to change if the real agricultural wage is included in the equation. Therefore, for various policy issues, the study of DN is much to be desired. The rationale for these comments would be evident from the following discussions on their findings.

II
Comments on Some Findings

(a) *Relative Prices and Inflation*

The impact of relative prices on rural poverty has been debated quite intensively due to the variance in the findings of the various studies. Ahluwalia (1985) had expressed his reservations about the positive coefficient for the CPIAL in Narain's equation as reported by G M Desai (1985) as a measure of inflation to explain the changes in rural poverty during 1956-57 to 1970-71 on the ground that it indicates the level of prices, whereas it should be relative prices. This has been measured by Ahluwalia as the ratio of CPIAL (representing the prices paid by the rural poor) with that of the national accounts deflator of agricultural gross domestic product (GDP), indicating thereby the prices received by the rural poor. However, the impact of relative prices and CPIAL both turned out to be non-significant in explaining the change in rural poverty during the period: 1956-57 to 1977-78 [Ahluwalia 1985].

Following the methodology of Ahluwalia, DN have also used the same measures of relative prices and inflation (i e, CPIAL). In their case too, the coefficients for these price variables turned out to be non-significant in explaining the changes in rural poverty during 1961-62 to 1993-94 with sign of the coefficients contrary to general expectation. The main difference between Ahluwalia and DN is that Ahluwalia used either relative prices or CPIAL in explaining rural poverty in different equations. However, CPIAL and GDP deflator (but not the relative prices) have also been taken simultaneously by Ahluwalia because they represent altogether different forces: the former for prices paid and the latter for prices received by the rural poor. Therefore, including both these measures simultaneously in an equation was justified. Whereas DN have taken both CPIAL and relative prices (ratio between CPIAL and NDP deflator) simultaneously in explaining rural poverty without realising that CPIAL in this case is entering again in estimating relative prices in their equation. This seems to have created a problem regarding the sign of the coefficients, which turned out to be contrary to general expectation. In the case of Ahluwalia the sign of the coefficient was on expected lines probably because in his equation CPIAL and GDP deflator were representing different forces as mentioned earlier. In the case of DN it is a wrong sign for the price variables rather than their magnitude and significance, which have created the suspicion that the inclusion of CPIAL along with the relative prices (which have also been measured through CPIAL) in the equation, seem to have become responsible to some extent in making the coefficients non-significant with the wrong sign.

It may, however, be noted that with a slight change in the measure of relative prices, i e, dividing the index of food price of CPIAL by state domestic product (SDP) and SDP deflator as index of inflation, Sen (1996) got significantly positive coefficients even by including both the variables simultaneously in the equation, although estimated by pooling time series and cross-section across states. It is, therefore, contended that if DN had slightly modified their measures for price variables or had taken only one price variable at a time in the equation (as has been the case with Ahluwalia's equation), they would have also probably got significantly positive coefficient for relative prices as expected in explaining the changes in rural poverty over the period. It is rather well known that in empirical research, one has to try several combinations to get results which capture the ground situation and are in conformity with general expectation.

The most interesting aspect, however, is that the findings/observations of other studies, which are inconvenient to the arguments and findings of DN, are completely ignored. For instance, the positive coefficients for terms of trade [Misra and Hazell 1996] and relative prices and inflation [Bhattacharya et al 1991], Datta and Ravallion (1996), Sen (1996) for explaining changes in rural poverty have not even been mentioned by DN, to say nothing of making an effort to examine why their coefficients turned out to be contrary to others.

(b) *Distribution of Landholdings*

Two things may be noted at the outset for a proper understanding of the implications of their findings regarding the distribution of holdings in explaining changes in rural poverty over the period. These are: (i) the estimates for the distribution of holdings are available only at four points of time – 1961-62, 1971-72, 1981-82 and 1991-92 and for the remaining years they are interpolated. Such a wholesale interpolation has been justified on the ground of structural variable; and (ii) the real sources for the estimates for Gini coefficient for operational holdings are not given. The studies of Thorat (1997) and Sharma (1997) referred to as sources have not examined the changes in operational holdings. Both the studies have examined only the changes in ownership holdings.

Now let us see the trends in the Gini coefficients for the distribution of landholdings over the period. The inequality in the distribution of ownership holdings as indicated by the Gini coefficient in-

creased from 0.583 in 1961-62 to 0.709 in 1971-72 (see Table). Thereafter, it remained at 0.71 during the 70s and the 80s. This indicates that the distribution of ownership holdings has not shown any change in most of the years of the study. Once the Gini coefficients ranging from 0.709 in 1971-72 to 0.712 in 1991-92 are interpolated for 23 years out of 33 years of analysis by DN (due to non-availability of degrees of freedom in Table 3, it has been presumed that they have interpolated the estimates of rural poverty too), it became almost a constant rather than a variable. In such a situation, can anyone draw worthwhile inference/conclusion about its role in influencing rural poverty, which increased from 47 per cent in 1961-62 to 55 per cent in 1971-72 and thereafter decreased to 39 per cent in 1993-94. It seems that distribution of ownership has not played any role in influencing rural poverty. On the basis of such trends, an inference about either negative or positive impact on the rural poverty is difficult to draw. Its role seems to be at best neutral in the process of reducing rural poverty.

Once these interpolated estimates of the Gini coefficient of distribution of ownership holdings are fed in the regression equation along with other variables, the significantly negative coefficient for distribution of holdings in explaining rural poverty over the period has emerged, probably because other variables seem to have influenced it. Otherwise, such a consistency in the distribution of ownership holdings on its own should not have yielded a significantly negative coefficient. Now the question is to what extent are DN justified in arguing that this negative coefficient has been found because the big farmers with owned land practise labour intensive agriculture with large income multipliers that benefit the rural poor. But the fact is that in this negative relationship, other factors included in the equation seem to have played an important role, which have not been even mentioned by DN in explaining the changes in rural poverty over the period. Therefore, the arguments regarding inequality in distribution of ownership holdings in explaining the changes in rural poverty are invalid due to its stagnant trend during the period of study.

However, in the case of operational holdings, the situation is different in the sense that the inequality in its distribution remained stagnant as indicated by the Gini coefficient at 0.58 each in 1961-62 and 1971-72. After that, it started rising and the coefficient reached 0.64 in 1991-92. Despite the rising trend in the inequality in operational holdings against decreasing trend in rural poverty, it resulted in significantly positive coefficient, probably because of other variables. Therefore, their explanation that large tenant farmers do not provide labour augmenting agriculture and hence, the positive coefficient for inequality in operational holdings in explaining rural poverty is not convincing.

The main force behind increasing inequality in the distribution of operational holdings seems to be technology. What seems to have happened is that when the technology increased profitability of agriculture big farmers started taking land on lease for cultivation.. Due to increasing cost of cultivation, the small farmers have also started leasing out their land to big farmers [Government of India 1997]. This has resulted in increased inequality in the distribution of operational holdings over this period. On the other hand, technology has helped in increasing total factor productivity. Since total factor productivity and inequality in the distribution of operational holdings are moving in the same direction (multicollinearity problem), the effect of the latter seems to have offset by the former in explaining rural poverty. This is all the more evident in the equation of DN for the period 1961-62 to 1993-94, in which the distribution of operational holdings turned out to be non-significant in explaining rural poverty in the country.

If the changes in distribution of ownership holdings had not been included in the regression equation for the reasons mentioned above, the coefficient for operational holdings along with total factor productivity would have captured more appropriately the prevailing situation of tenancy/lease market in the country. This would have provided better understanding of policy issues concerning agrarian reforms which need to be studied afresh in the context of structural adjustment and globalisation of the economy.

(c) *Agricultural Growth vis-a-vis Government Expenditure*

Despite significant negative coefficient for government expenditure on poverty programmes in explaining rural pove :y, DN have inferred on the basis of standardised regression coefficients that for reducing rural poverty, technology-led agricultural growth is far more important than government expenditure on poverty alleviation programmes. This inference requires much more thorough analysis, free from the multicollinearity problem found in their analysis.

(1) Several variables included in the equation like per capita real agricultural net domestic product, total factor productivity, real government expenditure seem to be mutually correlated. As a result, the effect of a particular variable might get reflected in some other variables. The degrees of freedom are also low in their time series analysis.

(2) It is because of these reasons, that the time series and cross-section data across the states are pooled by Sen (1996) for estimating an equation in which rural poverty was regressed against agricultural output per rural person, per capita state domestic product, relative food prices, inflation, and per capita real state development expenditure. In this exercise, the real state development expenditure turned out to be the most important variable in explaining rural poverty over the period followed by agricultural output. The former, unlike the latter which reduced poverty by increasing mean consumption, is the most significant because it reduced poverty by improving both mean consumption and income distribution. It has, however, been concluded by Sen that "the importance of state expenditure and of the relative prices appear to be fairly robust as factors explaining poverty both across time and space".

(3) It may also be argued that both agricultural and non-agricultural outputs are influenced to some extent by government expenditure on poverty alleviation programmes by creating physical infrastructure and raising the demand for products by the rural poor by providing work opportunities and thereby generating income.

(4) It has also not been specified by DN whether government expenditure on various poverty alleviation programmes includes expenditure by state governments. This is important because the state governments are also spending on rural development programmes. Its inclusion in government expenditure may influence the co-

TABLE: DISTRIBUTION OF LANDHOLDINGS AND RURAL POVERTY

Year	Gini Coefficient: Ownership Holdings	Gini Coefficient: Operational Holdings	Incidence of Rural Poverty** (Per Cent)
1953-54	0.751*	0.683*	61.29
1961-62	0.583	0.583*	47.20
1971-72	0.709	0.586	54.84 (1970-71)
1981-82	0.712	0.629	45.31 (1983)
1991-92	0.710	0.640	38.74 (1993-94)

Sources: GOI (1995) – Report 399; GOI (1997) – Report 407; *Sharma (1994); **Sen (1996).

efficient in explaining the changes in rural poverty over the period.

(d) *Omission of Rural Labour Market*

It is rather well known that the rural labour market transmits the benefits of not only technological development in agriculture but also of employment generated by the government for the rural poor. Keeping this in view, the real agricultural wages capturing the influence of rural labour market are taken into account in explaining the changes in rural poverty in most of the studies. This important variable has, however, been ignored by DN, probably because they thought that total factor productivity in agriculture and government expenditure would reflect the influence of rural labour market on poverty. What seems to have been missed is that both these factors, particularly government expenditure, are influencing rural poverty by raising employment and hence, wages. It is, therefore, contended that if DN had included real agricultural wages in the explanatory framework, the ranking of the variables based on the coefficients would have certainly changed and so also their prioritisation of various policy issues.

III
Concluding Observation

In order to draw inferences about the trade-offs between various policy issues, analysis must incorporate all the important variables interlinkages among variables and the routes through which they influence rural poverty. On this count the analysis of DN leaves much to be desired, as is evident from the omission of real agricultural wage capturing the impact of rural market on the rural poverty.

A structural variable like distribution of landholdings in explaining changes in rural poverty can be examined more appropriately by pooling time series and corss-section data across states. It reduces the multicollinearity problem and provides enough degrees of freedom. Therefore, one may rely more on such estimates than on those based on time series analysis with limited number of observations as has been the case with the analytical framework of DN.

The Gini coefficient indicating inequality in the distribution of landholdings being the relative measure of structural variable, its impact would have been captured more appropriately by estimating its relationships with relative rural poverty, i e, inequality in per capita consumption rather than absolute rural poverty as has been attempted by DN. This would have helped in drawing more sharply policy issues regarding agrarian reforms which have a bearing on rural poverty in the country.

Even after getting the non-significant coefficients for price variables with the wrong sign, DN have not bothered to identify the factors responsible for it, with a view to change their specification of the variables, so that it may provide the results on expected lines and in broad agreement with others' findings to the extent possible. Perhaps they want to be consistent with earlier findings in which the relative prices measured in inter-sectoral framework turned out to be significantly negative in explaining the changes in marketed surplus and total factor productivity in agriculture [DN 1997a and 1998a]. It has now become rather well known that in the framework of DN, the relative prices have either no role to play, as is the case with rural poverty or negative one, as is evident from their earlier analysis of marketed surplus and total factor productivity in agriculture.

The findings of DN regarding relative prices seem to suggest that since there is no role of relative prices in raising either total factor productivity or marketed surplus, there is no need of agricultural price policies either. Now, relative prices and inflation also do not seem to harm the rural poor, if one stretches the findings of DN to their logical conclusion.

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